BAYWOOD HOTEL PROJECT CONSTRUCTION RISK ASSESSMENT

San José, California

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Introduction

The purpose of this report is to address community risk impacts associated with the proposed Baywood Hotel project in San José, California. The project proposes to demolish the existing two single-family residences and construct an 11-story hotel with 105 rooms, which would be located on the third through 11th floors. The hotel would include two underground parking levels and one above ground parking level (on the second floor) to accommodate 70 parking spaces. The issue addressed in this air quality study is localized community risk due to construction emissions from the project. This analysis was conducted following guidance provided by the Bay Area Air Quality Management District (BAAQMD).[1]

Setting

The project is located in Santa Clara County, which is in the San Francisco Bay Area Air Basin. Ambient air quality standards have been established at both the State and federal level. The Bay Area meets all ambient air quality standards with the exception of ground-level ozone, respirable particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$).

Toxic Air Contaminants

Toxic air contaminants (TAC) are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer) and include, but are not limited to, the criteria air pollutants. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter [DPM] near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, State, and federal level.

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs (based on the Bay Area average). According to the California Air Resources Board (CARB), diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB, and are listed as carcinogens either under the State's Proposition 65 or under the Federal Hazardous Air Pollutants programs.

Regulatory Agencies

CARB has adopted and implemented a number of regulations for stationary and mobile sources to reduce emissions of DPM. Several of these regulatory programs affect medium and heavy-duty diesel trucks that represent the bulk of DPM emissions from California highways. These regulations include the solid waste collection vehicle (SWCV) rule, in-use public and utility fleets, and the heavy-duty diesel truck and bus regulations. In 2008, CARB approved a new

[1] Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, May 2017.

regulation to reduce emissions of DPM and nitrogen oxides from existing on-road heavy-duty diesel fueled vehicles.[2] The regulation requires affected vehicles to meet specific performance requirements between 2014 and 2023, with all affected diesel vehicles required to have 2010 model-year engines or equivalent by 2023. These requirements are phased in over the compliance period and depend on the model year of the vehicle.

The BAAQMD is the regional agency tasked with managing air quality in the region. At the State level, the CARB (a part of the California Environmental Protection Agency [EPA]) oversees regional air district activities and regulates air quality at the State level. The BAAQMD has published California Environmental Quality Act (CEQA) Air Quality Guidelines that are used in this assessment to evaluate air quality impacts of projects.[3] The detailed community risk modeling methodology used in this assessment is contained in *Attachment 1*.

The San José Envision 2040 General Plan includes goals, policies, and actions to reduce exposure of the City's sensitive population to exposure of air pollution and toxic air contaminants or TACs. The following goals, policies, and actions are applicable to the proposed project:

Applicable Goals – Toxic Air Contaminants

Goal MS-11 Minimize exposure of people to air pollution and toxic air contaminants such as ozone, carbon monoxide, lead, and particulate matter.

Applicable Policies – Toxic Air Contaminants

MS-11.1 Require completion of air quality modeling for sensitive land uses such as new residential developments that are located near sources of pollution such as freeways and industrial uses. Require new residential development projects and projects categorized as sensitive receptors to incorporate effective mitigation into project designs or be located an adequate distance from sources of toxic air contaminants (TACs) to avoid significant risks to health and safety.

MS-11.4 Encourage the installation of appropriate air filtration at existing schools, residences, and other sensitive receptor uses adversely affected by pollution sources.

MS-11.5 Encourage the use of pollution absorbing trees and vegetation in buffer areas between substantial sources of TACs and sensitive land uses.

Actions – Toxic Air Contaminants

MS-11.7 Consult with BAAQMD to identify stationary and mobile TAC sources and determine the need for and requirements of a health risk assessment for proposed developments.

[2] Available online: http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm. Accessed: June 9, 2015.
[3] BAAQMD, 2011, *op. cit.*

Sensitive Receptors

There are groups of people more affected by air pollution than others. CARB has identified the following persons who are most likely to be affected by air pollution: children under 16, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, and elementary schools. The closest sensitive receptor to the project site is the residence adjacent to the western site boundary. There are additional residences at farther distances from the site in all directions.

Significance Thresholds

In June 2010, BAAQMD adopted thresholds of significance to assist in the review of projects under CEQA. These Thresholds were designed to establish the level at which BAAQMD believed air pollution emissions would cause significant environmental impacts under CEQA and were posted on BAAQMD's website and included in the Air District's updated CEQA Guidelines (updated May 2017). The significance thresholds identified by BAAQMD and used in this analysis are summarized in Table 1.

Table 1. Community Risk Significance Thresholds

Health Risks and Hazards for Single Sources	
Excess Cancer Risk	>10.0 per one million
Hazard Index	>1.0
Incremental annual $PM_{2.5}$	>0.3 $\mu g/m^3$
Health Risks and Hazards for Combined Sources (Cumulative from all sources within 1,000 foot zone of influence)	
Excess Cancer Risk	>100 per one million
Hazard Index	>10.0
Annual Average $PM_{2.5}$	>0.8 $\mu g/m^3$
Note: $PM_{2.5}$ = fine particulate matter or particulates with an aerodynamic diameter of 2.5µm or less;	

Project Construction Activity

Construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM_{10} and $PM_{2.5}$. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. The BAAQMD CEQA Air Quality Guidelines consider these impacts to be less-than-significant if best management practices are employed to reduce these emissions. *Mitigation Measure AQ-1 would implement BAAQMD-required best management practices.*

Construction equipment and associated heavy-duty truck traffic generate diesel exhaust, which is a known TAC. These exhaust air pollutant emissions would not be considered to contribute substantially to existing or projected air quality violations. Construction exhaust emissions may still pose health risks for sensitive receptors such as surrounding residents. The primary community risk impact issues associated with construction emissions are cancer risk and exposure to $PM_{2.5}$. Diesel exhaust poses both a potential health and nuisance impact to nearby receptors. A health risk assessment of the project construction activities was conducted that evaluated potential health effects of sensitive receptors at these nearby residences from construction emissions of DPM and $PM_{2.5}$.[4] Dispersion modeling was conducted to predict the off-site concentrations resulting from project construction, so that lifetime cancer risks and non-cancer health effects could be evaluated.

Construction Period Emission Modeling

Construction activity is anticipated to include demolition, site preparation, grading, trenching, building construction, and paving. The California Emissions Estimator Model (CalEEMod) Version 2016.3.2 was used to predict annual emissions for construction. CalEEMod provides emission estimates for both on-site and off-site construction activities. On-site activities are primarily made up of construction equipment emissions, while off-site activity includes worker, hauling, and vendor traffic. Construction equipment usage and the construction schedule were based on applicant provided information for a project of this size. The proposed project land uses were input into CalEEMod, which included 105 rooms entered as "Hotel" and 70 spaces entered as "Enclosed Parking with Elevator". Information from the project plans was incorporated into the model, which included 2,327 sf of building demolition, 14,200 cubic yards (cy) of export for the grading phase, 100 one-way cement truck trips during building construction, and two added one-way truck trips to account for 8 tons for pavement demolition.

The earliest possible construction start date of February 2019 was used. The applicant provided schedule estimated 478 construction workdays over 21 months. *Attachment 2* includes the CalEEMod output values for construction emissions, information for schedule, equipment usage, and truck hauling.

On-Site Construction TAC Emissions

Construction period emissions were computed using CalEEMod along with projected construction activity, as described above. The CalEEMod model provided total annual PM_{10} exhaust emissions (assumed to be DPM) for the off-road construction equipment for the project and for the exhaust emissions from on-road vehicles of 0.0957 tons (191 pounds) over the approximate 21-month construction period. The on-road emissions are a result of haul truck travel during demolition and grading activities, worker travel, and vendor deliveries during construction. A trip length of one mile was used to represent vehicle travel while at or near the construction site. It was assumed that these emissions from on-road vehicles traveling at or near the site would occur at the construction site. Fugitive dust $PM_{2.5}$ emissions were also computed and included in this analysis. The model predicts emissions of 0.0395 tons (79 pounds) of on-site fugitive $PM_{2.5}$.

[4] DPM is identified by California as a toxic air contaminant due to the potential to cause cancer.

Dispersion Modeling

The U.S. EPA AERMOD dispersion model was used to predict concentrations of DPM and $PM_{2.5}$ concentrations at sensitive receptors (residences) that would be present in the vicinity of the project site during construction activities. Emission sources for the construction site were grouped into two categories: exhaust emissions of DPM and fugitive $PM_{2.5}$ dust emissions. Combustion equipment exhaust emissions were modeled as a series of point sources with a nine-foot release height (construction equipment exhaust stack height) placed at 6-meter (20-foot) intervals throughout the construction site. This resulted in 42 individual point sources being used to represent mobile equipment DPM exhaust emissions in the construction area, with DPM emissions occurring throughout the project construction site. Emissions from vehicle travel on- and off-site were distributed among the point sources throughout the site. Construction fugitive $PM_{2.5}$ dust emissions were modeled as an area source encompassing the entire construction site with a near ground level release height of two meters. Construction emissions were modeled as occurring daily between 7 a.m. and 4 p.m., when the majority of construction activity would occur. Figure 1 shows the project site, emission source locations, and nearby sensitive receptor locations where health impacts were evaluated.

The modeling used a five-year data set (2006-2010) of hourly meteorological data from the San José Airport that was prepared for use with the AERMOD model by the BAAQMD. Annual DPM and $PM_{2.5}$ concentrations from construction activities during the 2019-2020 period were calculated using the model. DPM and $PM_{2.5}$ concentrations were calculated at nearby sensitive receptors. Receptor heights of 1.5 meters (5 feet) and 4.5 meters (15 feet) were used to represent the breathing heights of residents in nearby homes and apartment buildings on the first and second floor levels, respectively.

Predicted Cancer Risk and Hazards

Figure 1 shows the locations where the maximum-modeled DPM and $PM_{2.5}$ concentrations occurred. The maximum DPM and $PM_{2.5}$ concentrations occurred at a single-family home southeast of the project site. The maximum $PM_{2.5}$ concentration occurred at the first-floor level (1.5 meters) and the maximum DPM concentration occurred at the second-floor level (4.5 meters). Using the maximum annual modeled DPM concentration, the maximum increased cancer risk at the location of the maximally exposed individual (MEI) was calculated using BAAQMD recommended methods. The cancer risk calculations are based on applying the BAAQMD recommended age sensitivity factors to the TAC concentrations. Age-sensitivity factors reflect the greater sensitivity of infants and small children to cancer causing TACs. BAAQMD-recommended exposure parameters were used for the cancer risk calculations, as described in *Attachment 1*. Infant and adult exposures were assumed to occur at all residences through the entire construction period.

Results of this assessment indicate that the maximum increased residential cancer risks would be 45.3 in one million for an infant exposure and 0.8 in one million for an adult exposure. The maximum residential excess cancer risk would be above the BAAQMD significance threshold of 10.0 in one million. ***Implementation of Mitigation Measures AQ-1 and AQ-2 would reduce this impact to a level of less than significant.***

Predicted Annual $PM_{2.5}$ Concentration

The maximum-modeled annual $PM_{2.5}$ concentration, which is based on combined exhaust and fugitive dust emissions, was 0.41 $\mu g/m^3$. This maximum annual $PM_{2.5}$ concentration would exceed the BAAQMD significance threshold of greater than 0.3 $\mu g/m^3$. *Implementation of Mitigation Measures AQ-1 and AQ-2 would reduce this impact to a level of less than significant.*

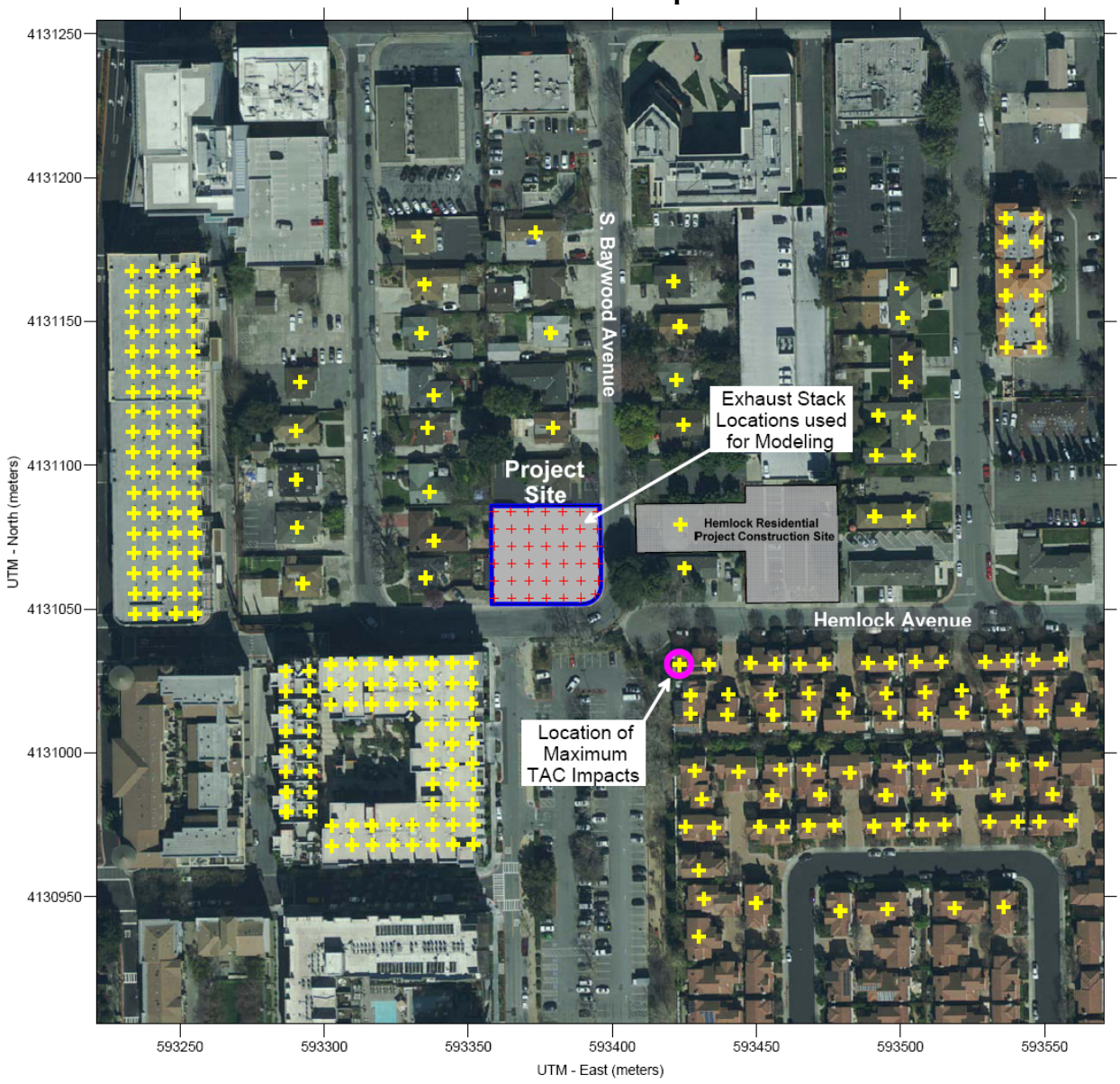
Non-Cancer Hazards

The maximum modeled annual residential DPM concentration (i.e., from construction exhaust) was 0.1794 $\mu g/m^3$. The maximum computed HI based on this DPM concentration is 0.04, which is lower than the BAAQMD significance criterion of a HI greater than 1.0.

The project would have a *significant* impact with respect to community risk caused by project construction activities, since maximum cancer risk and the maximum annual $PM_{2.5}$ concentration are above the single-source thresholds of 10.0 per million for cancer risk and 0.3 $\mu g/m^3$ for annual $PM_{2.5}$ concentration.

Attachment 2 includes the emission calculations and source information used in the modeling. *Attachment 3* includes the cancer risk calculations.

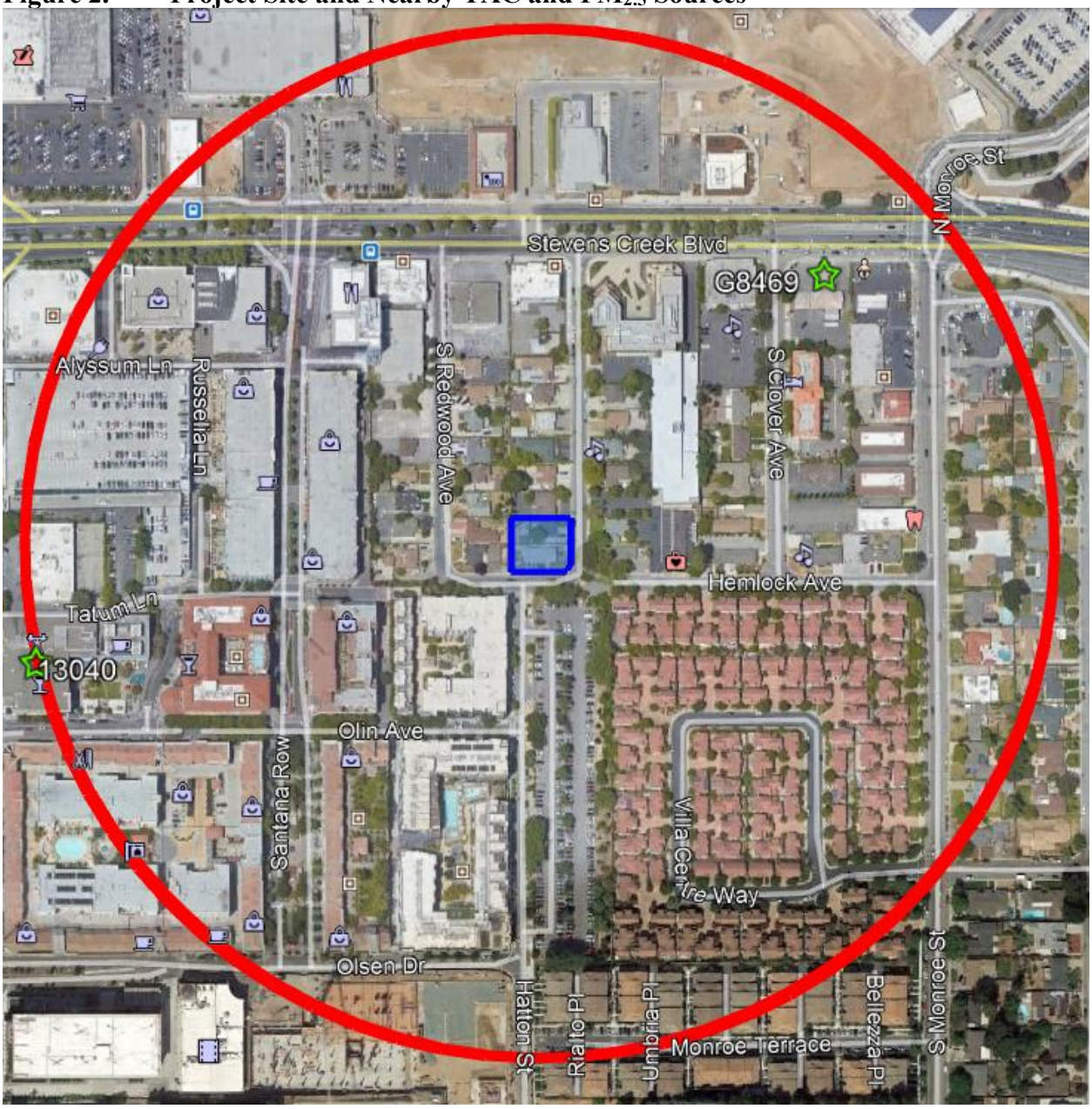
Figure 1. Project Construction Site and Locations of Off-Site Sensitive Receptors and Maximum TAC Impacts



Cumulative Community Risk Impacts on Construction MEI

Community health risk assessments typically look at all substantial sources of TACs that can affect sensitive receptors that are located within 1,000 feet of the MEI. These sources include freeways or highways, busy surface streets and stationary sources identified by BAAQMD. As shown in Figure 2, substantial source of TAC and $PM_{2.5}$ emissions in the area include Stevens Creek Boulevard, Plant #G8469, and Plant #13040.

Figure 2. Project Site and Nearby TAC and $PM_{2.5}$ Sources



Local High-Volume Roadways

For local roadways, BAAQMD has provided the *Roadway Screening Analysis Calculator* to assess whether roadways with traffic volumes of over 10,000 vehicles per day may have a potentially significant effect on a proposed project. Two adjustments were made to the cancer risk predictions made by this calculator: (1) adjustment for latest vehicle emissions rates predicted using EMFAC2014 and (2) adjustment of cancer risk to reflect new Office of Environmental Health Hazard Assessment (OEHHA) guidance (see *Attachment 1*).

The calculator uses the older EMFAC2011 emission rates for the year 2014. Overall, emission rates will decrease by the time the project is constructed and occupied. The project is not likely to be occupied prior to at least 2021. In addition, a new version of the emissions factor model, EMFAC2014 was made available since that tool was developed. This version predicts lower emission rates. An adjustment factor of 0.5 was developed by comparing emission rates of total organic gases (TOG) for running exhaust and running losses developed using EMFAC2011 for year 2014 and those from EMFAC2014 for year 2018 or later. The predicted cancer risk was then adjusted using a factor of 1.3744 to account for new OEHHA guidance. This factor was provided by BAAQMD for use with their CEQA screening tools that are used to predict cancer risk.[3]

The average daily traffic (ADT) volume on Stevens Creek Boulevard west of S. Clover Avenue is estimated to be approximately 44,400 vehicles. This estimate was based on the peak-hour traffic volumes included in traffic data for the area for cumulative conditions. The AM and PM peak-hour volumes were averaged and then multiplied by 10 to estimate the ADT. Using the BAAQMD *Roadway Screening Analysis Calculator* for Santa Clara County for east-west directional roadways and at a distance of approximately 700 feet south of the roadway (the residential MEI), estimated cancer risk from the roadway traffic would be 2.61 per million and $PM_{2.5}$ concentration would be 0.09 $\mu g/m^3$. The chronic or acute Hazard Index (HI) for the roadway would be below 0.01.

Stationary Sources

Permitted stationary sources of air pollution near the project site were identified using the BAAQMD's *Stationary Source Risk and Hazard Analysis Tool*. This mapping tool uses Google Earth to identify the location of stationary sources and their estimated risk and hazard impacts. A Stationary Source Information Form (SSIF) containing the identified sources was prepared and submitted to BAAQMD. They provided updated risk levels, emissions and adjustments to account for new OEHHA guidance. The adjusted risk values were then adjusted with the appropriate distance multiplier values provided by BAAQMD or the emissions information was used in refined modeling. Plant #G8469 is the Valley Fair 76 gas station located at 2850 Stevens Creek Boulevard, approximately 750 feet northeast of the residential MEI. Plant #13040 are the FRIT Santana Row boilers and diesel generators located at 400 S. Winchester Boulevard Building 13, approximately 1,000 feet west of the residential MEI. The risk and hazard index from the gas station were adjusted for distance based on BAAQMD distance adjustment factors.[5] When adjusted for distance, the gas station poses a screening level excess cancer risk of 0.07 per million and a HI of less than 0.01. There are no $PM_{2.5}$ emissions from the gas station. When adjusted for distance, the boilers and diesel generators poses a screening level excess cancer risk of 0.02 per million, a HI of less than 0.01, and a $PM_{2.5}$ concentration of less than 0.01 $\mu g/m^3$.

[5] BAAQMD provides distance adjustment multipliers for stationary sources: (1) *Distance Adjustment Multiplier Tool for Diesel Internal Combustion (IC) Engines* and (2) *Distance Adjustment Multiplier Tool for Gasoline Dispensing Facilities (GDF)*

Cumulative Projects

In addition to existing nearby TAC sources and construction of the project, there could be other projects in the area with potentially active construction sites that would occur during the proposed project construction period. One such project was identified, the Hemlock Residential Project, on the opposite side (east) of S. Baywood Avenue. The location of this project relative to the proposed project is shown in Figure 1. Emissions from construction of the Hemlock Residential Project were assumed to occur during the same time as the propose project. Construction emissions for the Hemlock Residential Project was also evaluated in this assessment.

As shown in Table 2, the project would have a *less-than-significant* impact with respect to community risk caused by project construction activities, since the cancer risk and the annual $PM_{2.5}$ concentration are below the combined-source BAAQMD cumulative thresholds of 100.0 per million for cancer risk and 0.8 $\mu g/m^3$ for $PM_{2.5}$. The stationary source calculations are contained in *Attachment 4.*

Table 2. Cumulative TAC Levels at Construction MEI

Source	Cancer Risk (per million)	$PM_{2.5}$ Concentration ($\mu g/m^3$)	Acute or Chronic Hazard (HI)
Unmitigated Project Construction	**45.3 (infant)**	**0.41**	0.04
Unmitigated Hemlock Residential Project	9.2 (infant)	0.05	<0.01
Stevens Creek Boulevard	2.6	0.09	<0.01
Plant #G8469 – Gas Station	0.1	NA	<0.01
Plant #13040 – Boilers and Diesel Generators	<0.1	<0.01	<0.01
Cumulative Total	<57.3	<0.56	<0.08
BAAQMD Thresholds	*100*	*0.8*	*10.0*
Exceed Threshold?	No	No	No

Mitigation Measure AQ-1: **Include basic measures to control dust and exhaust during construction.**

During any construction period ground disturbance, the applicant shall ensure that the project contractor implement measures to control dust and exhaust. Implementation of the measures recommended by BAAQMD and listed below would reduce the air quality impacts associated with grading and new construction to a less-than-significant level. The contractor shall implement the following best management practices that are required of all projects:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.

- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).

- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

- Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Mitigation Measure AQ-2: **Selection of equipment during construction to minimize emissions. Such equipment selection would include the following:**

The project shall develop a plan demonstrating that the off-road equipment used on-site to construct the project would achieve a fleet-wide average 78 percent reduction in DPM exhaust emissions or greater. One feasible plan to achieve this reduction would include the following:

- All diesel-powered off-road equipment, larger than 25 horsepower, operating on the site for more than two days continuously shall, at a minimum, meet U.S. EPA particulate matter emissions standards for Tier 3 engines with CARB-certified Level 3 Diesel Particulate Filters[6] or equivalent. The use of equipment meeting U.S. EPA Tier 4 standards for particulate matter would meet this requirement. Alternatively, the use of equipment that includes alternatively-fueled equipment (i.e., non-diesel) would meet this requirement. Other measures may be the use of added exhaust devices, or a combination of measures, provided that these measures are approved by the City and demonstrated to reduce community risk impacts to less-than-significant.

[6] See http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm

Effectiveness of Mitigation

Implementation of *Mitigation Measure 1* is considered to reduce exhaust emissions by 5 percent and fugitive dust emissions by over 50 percent. Implementation of *Mitigation Measure 2* would further reduce on-site diesel exhaust emissions by 89 percent. With mitigation, the increased lifetime residential cancer risk from construction, assuming infant exposure, would be less than 4.8 in one million. This cancer risk would be below the BAAQMD threshold of 10 in one million. With mitigation, the annual $PM_{2.5}$ concentrations from construction would be less than 0.09 $\mu g/m^3$ for a residential exposure, which would less than the BAAQMD threshold of 0.3 $\mu g/m^3$. *After implementation of these recommended measures, the project would have a less-than-significant impact with respect to community risk caused by construction activities.*

Supporting Documentation

Attachment 1 is the methodology used to compute community risk impacts, including the methods to compute lifetime cancer risk from exposure to project emissions.

Attachment 2 includes the CalEEMod output for the project construction TACs. Also included are any modeling assumptions.

Attachment 3 is the construction health risk assessment. AERMOD dispersion modeling files for this assessment, which are quite voluminous, are available upon request and would be provided in digital format.

Attachment 4 includes the screening community risk calculations from sources affecting the project.

Attachment 1: Health Risk Calculation Methodology

A health risk assessment (HRA) for exposure to Toxic Air Contaminates (TACs) requires the application of a risk characterization model to the results from the air dispersion model to estimate potential health risk at each sensitive receptor location. The State of California Office of Environmental Health Hazard Assessment (OEHHA) and California Air Resources Board (CARB) develop recommended methods for conducting health risk assessments. The most recent OEHHA risk assessment guidelines were published in February of 2015.[7] These guidelines incorporate substantial changes designed to provide for enhanced protection of children, as required by State law, compared to previous published risk assessment guidelines. CARB has provided additional guidance on implementing OEHHA's recommended methods.[8] This HRA used the recent 2015 OEHHA risk assessment guidelines and CARB guidance. The BAAQMD has adopted recommended procedures for applying the newest OEHHA guidelines as part of Regulation 2, Rule 5: New Source Review of Toxic Air Contaminants.[9] Exposure parameters from the OEHHA guidelines and the recent BAAQMD HRA Guidelines were used in this evaluation.

Cancer Risk

Potential increased cancer risk from inhalation of TACs are calculated based on the TAC concentration over the period of exposure, inhalation dose, the TAC cancer potency factor, and an age sensitivity factor to reflect the greater sensitivity of infants and children to cancer causing TACs. The inhalation dose depends on a person's breathing rate, exposure time and frequency of exposure, and the exposure duration. These parameters vary depending on the age, or age range, of the persons being exposed and whether the exposure is considered to occur at a residential location or other sensitive receptor location.

The current OEHHA guidance recommends that cancer risk be calculated by age groups to account for different breathing rates and sensitivity to TACs. Specifically, they recommend evaluating risks for the third trimester of pregnancy to age zero, ages zero to less than two (infant exposure), ages two to less than 16 (child exposure), and ages 16 to 70 (adult exposure). Age sensitivity factors (ASFs) associated with the different types of exposure are an ASF of 10 for the third trimester and infant exposures, an ASF of 3 for a child exposure, and an ASF of 1 for an adult exposure. Also associated with each exposure type are different breathing rates, expressed as liters per kilogram of body weight per day (L/kg-day). As recommended by the BAAQMD, 95th percentile breathing rates are used for the third trimester and infant exposures, and 80th percentile breathing rates for child and adult exposures. Additionally, CARB and the BAAQMD recommend the use of a residential exposure duration of 30 years for sources with long-term emissions (e.g., roadways).

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[7] OEHHA, 2015. *Air Toxics Hot Spots Program Risk Assessment Guidelines, The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*. Office of Environmental Health Hazard Assessment. February.

[8] CARB, 2015. *Risk Management Guidance for Stationary Sources of Air Toxics*. July 23.

[9] BAAQMD, 2016. *BAAQMD Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines*. December 2016.

Under previous OEHHA and BAAQMD HRA guidance, residential receptors are assumed to be at their home 24 hours a day, or 100 percent of the time. In the 2015 Risk Assessment Guidance, OEHHA includes adjustments to exposure duration to account for the fraction of time at home (FAH), which can be less than 100 percent of the time, based on updated population and activity statistics. The FAH factors are age-specific and are: 0.85 for third trimester of pregnancy to less than 2 years old, 0.72 for ages 2 to less than 16 years, and 0.73 for ages 16 to 70 years. Use of the FAH factors is allowed by the BAAQMD if there are no schools in the project vicinity that would have a cancer risk of one in a million or greater assuming 100 percent exposure (FAH = 1.0).

Functionally, cancer risk is calculated using the following parameters and formulas:

Cancer Risk (per million) = $CPF \times Inhalation\ Dose \times ASF \times ED/AT \times FAH \times 10^6$

Where:

CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = $C_{air} \times DBR \times A \times (EF/365) \times 10^{-6}$

Where:

C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

The health risk parameters used in this evaluation are summarized as follows:

Parameter	*Exposure Type* →	Infant		Child		Adult
	Age Range →	3rd Trimester	0<2	2 < 9	2 < 16	16 - 30
DPM Cancer Potency Factor $(mg/kg\text{-}day)^{-1}$		1.10E+00	1.10E+00	1.10E+00	1.10E+00	1.10E+00
Daily Breathing Rate (L/kg-day)*		361	1,090	631	572	261
Inhalation Absorption Factor		1	1	1	1	1
Averaging Time (years)		70	70	70	70	70
Exposure Duration (years)		0.25	2	14	14	14
Exposure Frequency (days/year)		350	350	350	350	350
Age Sensitivity Factor		10	10	3	3	1
Fraction of Time at Home		0.85-1.0	0.85-1.0	0.72-1.0	0.72-1.0	0.73

* 95th percentile breathing rates for 3rd trimester and infants and 80th percentile for children and adults

Non-Cancer Hazards

Potential non-cancer health hazards from TAC exposure are expressed in terms of a hazard index (HI), which is the ratio of the TAC concentration to a reference exposure level (REL). OEHHA has defined acceptable concentration levels for contaminants that pose non-cancer health hazards. TAC concentrations below the REL are not expected to cause adverse health impacts, even for sensitive individuals. The total HI is calculated as the sum of the HIs for each TAC evaluated and the total HI is compared to the BAAQMD significance thresholds to determine whether a significant non-cancer health impact from a project would occur.

Typically, for residential projects located near roadways with substantial TAC emissions, the primary TAC of concern with non-cancer health effects is diesel particulate matter (DPM). For DPM, the chronic inhalation REL is 5 micrograms per cubic meter ($\mu g/m^3$).

Annual $PM_{2.5}$ Concentrations

While not a TAC, fine particulate matter ($PM_{2.5}$) has been identified by the BAAQMD as a pollutant with potential non-cancer health effects that should be included when evaluating potential community health impacts under the California Environmental Quality Act (CEQA). The thresholds of significance for $PM_{2.5}$ (project level and cumulative) are in terms of an increase in the annual average concentration. When considering $PM_{2.5}$ impacts, the contribution from all sources of $PM_{2.5}$ emissions should be included. For projects with potential impacts from nearby local roadways, the $PM_{2.5}$ impacts should include those from vehicle exhaust emissions, $PM_{2.5}$ generated from vehicle tire and brake wear, and fugitive emissions from re-suspended dust on the roads.

Attachment 2: CalEEMod Modeling Output

18-054 Baywood Hotel, San Jose - Santa Clara County, Annual

18-054 Baywood Hotel, San Jose

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	70.00	Space	0.00	32,959.00	0
Hotel	105.00	Room	3.50	90,161.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E 2020 CO2 Rate = 290

Land Use - Applicant Provided Land Uses

Construction Phase - Applicant Provided Schedule

Off-road Equipment - Applicant Provided Equip and Hours

Off-road Equipment - Applicant Provided Equip and Hours

Off-road Equipment - Applicant Provided Equip and Hours

Off-road Equipment - Applicant Provided Equip and Hours

Off-road Equipment - Applicant Provided Equip and Hours

Off-road Equipment - Applicant Provided Equip and Hours

Off-road Equipment - Applicant Provided Equip and Hours

Trips and VMT - 1 Mile trips, Cement Trucks 50 total round trips = 100 one-way trips, 8 tons Demo = 1 demo hauling round trip = 2 trip, 11 + 2 = 13

Demolition - Applicant Provided Demo Volume 2327sf

Grading - Applicant Provided Volumes 14,200cy export

Woodstoves -

Water And Wastewater - 100% Aerobic

Construction Off-road Equipment Mitigation - BMPs, Tier 3 DPF 3 Mitigation

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	18.00	153.00
tblConstructionPhase	NumDays	230.00	152.00
tblConstructionPhase	NumDays	20.00	41.00
tblConstructionPhase	NumDays	8.00	43.00
tblConstructionPhase	NumDays	18.00	22.00
tblConstructionPhase	NumDays	5.00	45.00
tblConstructionPhase	PhaseEndDate	3/25/2020	10/31/2020
tblConstructionPhase	PhaseEndDate	2/4/2020	3/31/2020
tblConstructionPhase	PhaseEndDate	2/28/2019	3/31/2019
tblConstructionPhase	PhaseEndDate	3/19/2019	7/31/2019
tblConstructionPhase	PhaseEndDate	2/28/2020	12/1/2020
tblConstructionPhase	PhaseEndDate	3/7/2019	5/31/2019
tblConstructionPhase	PhaseEndDate	3/19/2019	8/31/2019

tblConstructionPhase	PhaseStartDate	2/29/2020	4/1/2020
tblConstructionPhase	PhaseStartDate	3/20/2019	9/1/2019
tblConstructionPhase	PhaseStartDate	3/8/2019	6/1/2019
tblConstructionPhase	PhaseStartDate	2/5/2020	11/1/2020
tblConstructionPhase	PhaseStartDate	3/1/2019	4/1/2019
tblConstructionPhase	PhaseStartDate	3/20/2019	8/1/2019
tblGrading	AcresOfGrading	0.00	4.00
tblGrading	MaterialExported	0.00	14,200.00
tblLandUse	LandUseSquareFeet	28,000.00	32,959.00
tblLandUse	LandUseSquareFeet	152,460.00	90,161.00
tblLandUse	LotAcreage	0.63	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	10.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	8.00	3.00
tblOffRoadEquipment	UsageHours	7.00	5.00
tblOffRoadEquipment	UsageHours	8.00	3.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	8.00	3.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripNumber	11.00	13.00
tblTripsAndVMT	HaulingTripNumber	0.00	100.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00

tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0693	0.8214	0.3802	8.3000e-004	0.0754	0.0334	0.1088	0.0388	0.0309	0.0697	0.0000	75.8938	75.8938	0.0186	0.0000	76.3578
2020	0.6158	1.0343	1.0263	1.7500e-003	2.5000e-003	0.0623	0.0648	6.8000e-004	0.0618	0.0625	0.0000	150.8159	150.8159	0.0149	0.0000	151.1878
Maximum	**0.6158**	**1.0343**	**1.0263**	**1.7500e-003**	**0.0754**	**0.0623**	**0.1088**	**0.0388**	**0.0618**	**0.0697**	**0.0000**	**150.8159**	**150.8159**	**0.0186**	**0.0000**	**151.1878**

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	0.0222	0.4601	0.4161	8.3000e-004	0.0359	2.4300e-003	0.0383	9.4800e-003	2.4200e-003	0.0119	0.0000	75.8938	75.8938	0.0186	0.0000	76.3577
2020	0.5150	0.8089	1.0476	1.7500e-003	2.5000e-003	7.8000e-003	0.0103	6.8000e-004	7.8000e-003	8.4800e-003	0.0000	150.8157	150.8157	0.0149	0.0000	151.1877
Maximum	**0.5150**	**0.8089**	**1.0476**	**1.7500e-003**	**0.0359**	**7.8000e-003**	**0.0383**	**9.4800e-003**	**7.8000e-003**	**0.0119**	**0.0000**	**150.8157**	**150.8157**	**0.0186**	**0.0000**	**151.1877**

	ROG	NOx	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	**21.61**	**31.62**	**-4.07**	**0.00**	**50.70**	**89.31**	**71.98**	**74.23**	**88.98**	**84.58**	**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	**2-1-2019**	**4-30-2019**	0.3023	0.1243
2	**5-1-2019**	**7-31-2019**	0.3019	0.1862
3	**8-1-2019**	**10-31-2019**	0.1568	0.0971
4	**11-1-2019**	**1-31-2020**	0.1871	0.1146
5	**2-1-2020**	**4-30-2020**	0.3192	0.2416
6	**5-1-2020**	**7-31-2020**	0.6274	0.5157
7	**8-1-2020**	**9-30-2020**	0.4160	0.3420
		Highest	0.6274	0.5157

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/1/2019	3/31/2019	5	41	
2	Site Preparation	Site Preparation	4/1/2019	5/31/2019	5	45	
3	Grading	Grading	6/1/2019	7/31/2019	5	43	
4	Trenching	Trenching	8/1/2019	8/31/2019	5	22	
5	Building Construction	Building Construction	9/1/2019	3/31/2020	5	152	
6	Paving	Paving	11/1/2020	12/1/2020	5	22	

7	Architectural Coating	Architectural Coating	4/1/2020	10/31/2020	5	153	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 135,242; Non-Residential Outdoor: 45,081; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	3.00	81	0.73
Demolition	Excavators	1	3.00	158	0.38
Demolition	Rubber Tired Dozers	1	3.00	247	0.40
Site Preparation	Rubber Tired Dozers	1	4.00	247	0.40
Site Preparation	Rubber Tired Dozers	1	4.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Excavators	0	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	5.00	231	0.29
Building Construction	Forklifts	1	1.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Architectural Coating	Air Compressors	10	4.00	78	0.48
Paving	Cement and Mortar Mixers	1	4.00	9	0.56
Paving	Pavers	0	8.00	130	0.42
Paving	Paving Equipment	1	4.00	132	0.36
Paving	Rollers	0	6.00	80	0.38

Paving	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	3	8.00	0.00	13.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Grading	1	3.00	0.00	1,775.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Trenching	1	3.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Building Construction	2	52.00	20.00	100.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	10	10.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Paving	2	5.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 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					1.1500e-003	0.0000	1.1500e-003	1.7000e-004	0.0000	1.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	0.0143	0.1410	0.0865	1.5000e-004		7.2800e-003	7.2800e-003		6.8400e-003	6.8400e-003	0.0000	13.5938	13.5938	3.2800e-003	0.0000	13.6759
Total	**0.0143**	**0.1410**	**0.0865**	**1.5000e-004**	**1.1500e-003**	**7.2800e-003**	**8.4300e-003**	**1.7000e-004**	**6.8400e-003**	**7.0100e-003**	**0.0000**	**13.5938**	**13.5938**	**3.2800e-003**	**0.0000**	**13.6759**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	7.0000e-004	1.2000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0842	0.0842	1.0000e-005	0.0000	0.0845
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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-004	1.0000e-004	1.2100e-003	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1376	0.1376	1.0000e-005	0.0000	0.1377
Total	**2.2000e-004**	**8.0000e-004**	**1.3300e-003**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.2218**	**0.2218**	**2.0000e-005**	**0.0000**	**0.2222**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.2000e-004	0.0000	5.2000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5500e-003	0.0719	0.0946	1.5000e-004		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	13.5938	13.5938	3.2800e-003	0.0000	13.6759
Total	**3.5500e-003**	**0.0719**	**0.0946**	**1.5000e-004**	**5.2000e-004**	**5.4000e-004**	**1.0600e-003**	**4.0000e-005**	**5.4000e-004**	**5.8000e-004**	**0.0000**	**13.5938**	**13.5938**	**3.2800e-003**	**0.0000**	**13.6759**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	7.0000e-004	1.2000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0842	0.0842	1.0000e-005	0.0000	0.0845
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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-004	1.0000e-004	1.2100e-003	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1376	0.1376	1.0000e-005	0.0000	0.1377
Total	**2.2000e-004**	**8.0000e-004**	**1.3300e-003**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.2218**	**0.2218**	**2.0000e-005**	**0.0000**	**0.2222**

3.3 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					0.0678	0.0000	0.0678	0.0372	0.0000	0.0372	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0255	0.2717	0.0964	1.9000e-004		0.0133	0.0133		0.0122	0.0122	0.0000	17.2566	17.2566	5.4600e-003	0.0000	17.3931
Total	**0.0255**	**0.2717**	**0.0964**	**1.9000e-004**	**0.0678**	**0.0133**	**0.0810**	**0.0372**	**0.0122**	**0.0494**	**0.0000**	**17.2566**	**17.2566**	**5.4600e-003**	**0.0000**	**17.3931**

Unmitigated Construction Off-Site

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

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	7.0000e-005	8.3000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0944	0.0944	0.0000	0.0000	0.0945
Total	**1.4000e-004**	**7.0000e-005**	**8.3000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0944**	**0.0944**	**0.0000**	**0.0000**	**0.0945**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0305	0.0000	0.0305	8.3800e-003	0.0000	8.3800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.7000e-003	0.0910	0.1019	1.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	17.2566	17.2566	5.4600e-003	0.0000	17.3931
Total	**4.7000e-003**	**0.0910**	**0.1019**	**1.9000e-004**	**0.0305**	**5.2000e-004**	**0.0310**	**8.3800e-003**	**5.2000e-004**	**8.9000e-003**	**0.0000**	**17.2566**	**17.2566**	**5.4600e-003**	**0.0000**	**17.3931**

Mitigated Construction Off-Site

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

Worker	1.4000e-004	7.0000e-005	8.3000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0944	0.0944	0.0000	0.0000	0.0945
Total	**1.4000e-004**	**7.0000e-005**	**8.3000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0944**	**0.0944**	**0.0000**	**0.0000**	**0.0945**

3.4 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					2.9200e-003	0.0000	2.9200e-003	3.5000e-004	0.0000	3.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.0100e-003	0.0503	0.0495	7.0000e-005		3.3500e-003	3.3500e-003		3.0900e-003	3.0900e-003	0.0000	5.9984	5.9984	1.9000e-003	0.0000	6.0459
Total	**5.0100e-003**	**0.0503**	**0.0495**	**7.0000e-005**	**2.9200e-003**	**3.3500e-003**	**6.2700e-003**	**3.5000e-004**	**3.0900e-003**	**3.4400e-003**	**0.0000**	**5.9984**	**5.9984**	**1.9000e-003**	**0.0000**	**6.0459**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1500e-003	0.0951	0.0159	1.2000e-004	7.7000e-004	1.2000e-004	8.9000e-004	2.1000e-004	1.2000e-004	3.3000e-004	0.0000	11.4978	11.4978	1.3400e-003	0.0000	11.5314
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	4.0000e-005	4.8000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0541	0.0541	0.0000	0.0000	0.0542
Total	**2.2300e-003**	**0.0951**	**0.0163**	**1.2000e-004**	**8.2000e-004**	**1.2000e-004**	**9.4000e-004**	**2.2000e-004**	**1.2000e-004**	**3.4000e-004**	**0.0000**	**11.5519**	**11.5519**	**1.3400e-003**	**0.0000**	**11.5855**

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					1.3200e-003	0.0000	1.3200e-003	8.0000e-005	0.0000	8.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6300e-003	0.0373	0.0504	7.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	5.9984	5.9984	1.9000e-003	0.0000	6.0459
Total	**1.6300e-003**	**0.0373**	**0.0504**	**7.0000e-005**	**1.3200e-003**	**3.9000e-004**	**1.7100e-003**	**8.0000e-005**	**3.9000e-004**	**4.7000e-004**	**0.0000**	**5.9984**	**5.9984**	**1.9000e-003**	**0.0000**	**6.0459**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1500e-003	0.0951	0.0159	1.2000e-004	7.7000e-004	1.2000e-004	8.9000e-004	2.1000e-004	1.2000e-004	3.3000e-004	0.0000	11.4978	11.4978	1.3400e-003	0.0000	11.5314
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	4.0000e-005	4.8000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0541	0.0541	0.0000	0.0000	0.0542
Total	**2.2300e-003**	**0.0951**	**0.0163**	**1.2000e-004**	**8.2000e-004**	**1.2000e-004**	**9.4000e-004**	**2.2000e-004**	**1.2000e-004**	**3.4000e-004**	**0.0000**	**11.5519**	**11.5519**	**1.3400e-003**	**0.0000**	**11.5855**

3.5 Trenching - 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	2.5600e-003	0.0257	0.0253	3.0000e-005		1.7200e-003	1.7200e-003		1.5800e-003	1.5800e-003	0.0000	3.0690	3.0690	9.7000e-004	0.0000	3.0932
Total	**2.5600e-003**	**0.0257**	**0.0253**	**3.0000e-005**		**1.7200e-003**	**1.7200e-003**		**1.5800e-003**	**1.5800e-003**	**0.0000**	**3.0690**	**3.0690**	**9.7000e-004**	**0.0000**	**3.0932**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	2.0000e-005	2.4000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0277	0.0277	0.0000	0.0000	0.0277
Total	**4.0000e-005**	**2.0000e-005**	**2.4000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0277**	**0.0277**	**0.0000**	**0.0000**	**0.0277**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.4000e-004	0.0191	0.0258	3.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	3.0690	3.0690	9.7000e-004	0.0000	3.0932
Total	**8.4000e-004**	**0.0191**	**0.0258**	**3.0000e-005**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**	**0.0000**	**3.0690**	**3.0690**	**9.7000e-004**	**0.0000**	**3.0932**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	2.0000e-005	2.4000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0277	0.0277	0.0000	0.0000	0.0277
Total	**4.0000e-005**	**2.0000e-005**	**2.4000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0277**	**0.0277**	**0.0000**	**0.0000**	**0.0277**

3.6 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	0.0146	0.1711	0.0688	1.7000e-004		7.5200e-003	7.5200e-003		6.9200e-003	6.9200e-003	0.0000	14.8348	14.8348	4.6900e-003	0.0000	14.9522
Total	**0.0146**	**0.1711**	**0.0688**	**1.7000e-004**		**7.5200e-003**	**7.5200e-003**		**6.9200e-003**	**6.9200e-003**	**0.0000**	**14.8348**	**14.8348**	**4.6900e-003**	**0.0000**	**14.9522**

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	7.0000e-005	3.0700e-003	5.1000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.3708	0.3708	4.0000e-005	0.0000	0.3718
Vendor	1.9000e-003	0.0613	0.0176	7.0000e-005	8.0000e-004	1.5000e-004	9.5000e-004	2.3000e-004	1.4000e-004	3.8000e-004	0.0000	6.9773	6.9773	7.5000e-004	0.0000	6.9960
Worker	2.7700e-003	1.3100e-003	0.0167	2.0000e-005	1.6800e-003	2.0000e-005	1.7000e-003	4.5000e-004	2.0000e-005	4.7000e-004	0.0000	1.8974	1.8974	9.0000e-005	0.0000	1.8997
Total	**4.7400e-003**	**0.0656**	**0.0349**	**9.0000e-005**	**2.5200e-003**	**1.7000e-004**	**2.6900e-003**	**6.9000e-004**	**1.6000e-004**	**8.6000e-004**	**0.0000**	**9.2455**	**9.2455**	**8.8000e-004**	**0.0000**	**9.2676**

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	4.0600e-003	0.0792	0.0898	1.7000e-004		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	14.8348	14.8348	4.6900e-003	0.0000	14.9521
Total	**4.0600e-003**	**0.0792**	**0.0898**	**1.7000e-004**		**4.7000e-004**	**4.7000e-004**		**4.7000e-004**	**4.7000e-004**	**0.0000**	**14.8348**	**14.8348**	**4.6900e-003**	**0.0000**	**14.9521**

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	7.0000e-005	3.0700e-003	5.1000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.3708	0.3708	4.0000e-005	0.0000	0.3718
Vendor	1.9000e-003	0.0613	0.0176	7.0000e-005	8.0000e-004	1.5000e-004	9.5000e-004	2.3000e-004	1.4000e-004	3.8000e-004	0.0000	6.9773	6.9773	7.5000e-004	0.0000	6.9960
Worker	2.7700e-003	1.3100e-003	0.0167	2.0000e-005	1.6800e-003	2.0000e-005	1.7000e-003	4.5000e-004	2.0000e-005	4.7000e-004	0.0000	1.8974	1.8974	9.0000e-005	0.0000	1.8997
Total	**4.7400e-003**	**0.0656**	**0.0349**	**9.0000e-005**	**2.5200e-003**	**1.7000e-004**	**2.6900e-003**	**6.9000e-004**	**1.6000e-004**	**8.6000e-004**	**0.0000**	**9.2455**	**9.2455**	**8.8000e-004**	**0.0000**	**9.2676**

3.6 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.7900e-003	0.1148	0.0478	1.2000e-004		4.9100e-003	4.9100e-003		4.5100e-003	4.5100e-003	0.0000	10.8425	10.8425	3.5100e-003	0.0000	10.9302
Total	**9.7900e-003**	**0.1148**	**0.0478**	**1.2000e-004**		**4.9100e-003**	**4.9100e-003**		**4.5100e-003**	**4.5100e-003**	**0.0000**	**10.8425**	**10.8425**	**3.5100e-003**	**0.0000**	**10.9302**

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	5.0000e-005	2.2100e-003	3.6000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.2777	0.2777	3.0000e-005	0.0000	0.2784
Vendor	1.2300e-003	0.0435	0.0121	5.0000e-005	6.0000e-004	7.0000e-005	6.7000e-004	1.8000e-004	7.0000e-005	2.4000e-004	0.0000	5.2181	5.2181	5.1000e-004	0.0000	5.2308
Worker	1.8700e-003	8.6000e-004	0.0111	2.0000e-005	1.2600e-003	2.0000e-005	1.2700e-003	3.4000e-004	2.0000e-005	3.5000e-004	0.0000	1.3743	1.3743	6.0000e-005	0.0000	1.3758

Total	**3.1500e-003**	**0.0465**	**0.0235**	**7.0000e-005**	**1.9000e-003**	**9.0000e-005**	**1.9800e-003**	**5.3000e-004**	**9.0000e-005**	**6.0000e-004**	**0.0000**	**6.8701**	**6.8701**	**6.0000e-004**	**0.0000**	**6.8850**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.0300e-003	0.0592	0.0671	1.2000e-004		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	10.8425	10.8425	3.5100e-003	0.0000	10.9301
Total	**3.0300e-003**	**0.0592**	**0.0671**	**1.2000e-004**		**3.5000e-004**	**3.5000e-004**		**3.5000e-004**	**3.5000e-004**	**0.0000**	**10.8425**	**10.8425**	**3.5100e-003**	**0.0000**	**10.9301**

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	5.0000e-005	2.2100e-003	3.6000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.2777	0.2777	3.0000e-005	0.0000	0.2784
Vendor	1.2300e-003	0.0435	0.0121	5.0000e-005	6.0000e-004	7.0000e-005	6.7000e-004	1.8000e-004	7.0000e-005	2.4000e-004	0.0000	5.2181	5.2181	5.1000e-004	0.0000	5.2308
Worker	1.8700e-003	8.6000e-004	0.0111	2.0000e-005	1.2600e-003	2.0000e-005	1.2700e-003	3.4000e-004	2.0000e-005	3.5000e-004	0.0000	1.3743	1.3743	6.0000e-005	0.0000	1.3758
Total	**3.1500e-003**	**0.0465**	**0.0235**	**7.0000e-005**	**1.9000e-003**	**9.0000e-005**	**1.9800e-003**	**5.3000e-004**	**9.0000e-005**	**6.0000e-004**	**0.0000**	**6.8701**	**6.8701**	**6.0000e-004**	**0.0000**	**6.8850**

3.7 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.4600e-003	0.0138	0.0156	3.0000e-005		6.7000e-004	6.7000e-004		6.2000e-004	6.2000e-004	0.0000	2.2206	2.2206	6.6000e-004	0.0000	2.2371
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.4600e-003**	**0.0138**	**0.0156**	**3.0000e-005**		**6.7000e-004**	**6.7000e-004**		**6.2000e-004**	**6.2000e-004**	**0.0000**	**2.2206**	**2.2206**	**6.6000e-004**	**0.0000**	**2.2371**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	3.0000e-005	3.6000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0447	0.0447	0.0000	0.0000	0.0448
Total	**6.0000e-005**	**3.0000e-005**	**3.6000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0447**	**0.0447**	**0.0000**	**0.0000**	**0.0448**

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	5.5000e-004	0.0107	0.0171	3.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	2.2206	2.2206	6.6000e-004	0.0000	2.2371
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.5000e-004**	**0.0107**	**0.0171**	**3.0000e-005**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**	**0.0000**	**2.2206**	**2.2206**	**6.6000e-004**	**0.0000**	**2.2371**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	3.0000e-005	3.6000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0447	0.0447	0.0000	0.0000	0.0448
Total	**6.0000e-005**	**3.0000e-005**	**3.6000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0447**	**0.0447**	**0.0000**	**0.0000**	**0.0448**

3.8 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4770					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1235	0.8588	0.9340	1.5200e-003		0.0566	0.0566		0.0566	0.0566	0.0000	130.2159	130.2159	0.0101	0.0000	130.4680
Total	**0.6005**	**0.8588**	**0.9340**	**1.5200e-003**		**0.0566**	**0.0566**		**0.0566**	**0.0566**	**0.0000**	**130.2159**	**130.2159**	**0.0101**	**0.0000**	**130.4680**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.5000e-004	3.9000e-004	5.0200e-003	1.0000e-005	5.7000e-004	1.0000e-005	5.8000e-004	1.5000e-004	1.0000e-005	1.6000e-004	0.0000	0.6221	0.6221	3.0000e-005	0.0000	0.6228
Total	**8.5000e-004**	**3.9000e-004**	**5.0200e-003**	**1.0000e-005**	**5.7000e-004**	**1.0000e-005**	**5.8000e-004**	**1.5000e-004**	**1.0000e-005**	**1.6000e-004**	**0.0000**	**0.6221**	**0.6221**	**3.0000e-005**	**0.0000**	**0.6228**

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	0.4770					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0303	0.6921	0.9345	1.5200e-003		7.2700e-003	7.2700e-003		7.2700e-003	7.2700e-003	0.0000	130.2158	130.2158	0.0101	0.0000	130.4678
Total	**0.5073**	**0.6921**	**0.9345**	**1.5200e-003**		**7.2700e-003**	**7.2700e-003**		**7.2700e-003**	**7.2700e-003**	**0.0000**	**130.2158**	**130.2158**	**0.0101**	**0.0000**	**130.4678**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.5000e-004	3.9000e-004	5.0200e-003	1.0000e-005	5.7000e-004	1.0000e-005	5.8000e-004	1.5000e-004	1.0000e-005	1.6000e-004	0.0000	0.6221	0.6221	3.0000e-005	0.0000	0.6228
Total	**8.5000e-004**	**3.9000e-004**	**5.0200e-003**	**1.0000e-005**	**5.7000e-004**	**1.0000e-005**	**5.8000e-004**	**1.5000e-004**	**1.0000e-005**	**1.6000e-004**	**0.0000**	**0.6221**	**0.6221**	**3.0000e-005**	**0.0000**	**0.6228**

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	115.7787	115.7787	0.0116	2.4000e-003	116.7820
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	115.7787	115.7787	0.0116	2.4000e-003	116.7820
NaturalGas Mitigated	0.0215	0.1958	0.1645	1.1800e-003		0.0149	0.0149		0.0149	0.0149	0.0000	213.1902	213.1902	4.0900e-003	3.9100e-003	214.4571
NaturalGas Unmitigated	0.0215	0.1958	0.1645	1.1800e-003		0.0149	0.0149		0.0149	0.0149	0.0000	213.1902	213.1902	4.0900e-003	3.9100e-003	214.4571

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					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	3.99503e+006	0.0215	0.1958	0.1645	1.1800e-003		0.0149	0.0149		0.0149	0.0149	0.0000	213.1902	213.1902	4.0900e-003	3.9100e-003	214.4571
Total		**0.0215**	**0.1958**	**0.1645**	**1.1800e-003**		**0.0149**	**0.0149**		**0.0149**	**0.0149**	**0.0000**	**213.1902**	**213.1902**	**4.0900e-003**	**3.9100e-003**	**214.4571**

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					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	3.99503e+006	0.0215	0.1958	0.1645	1.1800e-003		0.0149	0.0149		0.0149	0.0149	0.0000	213.1902	213.1902	4.0900e-003	3.9100e-003	214.4571
Total		**0.0215**	**0.1958**	**0.1645**	**1.1800e-003**		**0.0149**	**0.0149**		**0.0149**	**0.0149**	**0.0000**	**213.1902**	**213.1902**	**4.0900e-003**	**3.9100e-003**	**214.4571**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	193140	25.4060	2.5400e-003	5.3000e-004	25.6261

Hotel	687027	90.3727	9.0400e-003	1.8700e-003	91.1559
Total		**115.7787**	**0.0116**	**2.4000e-003**	**116.7820**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	193140	25.4060	2.5400e-003	5.3000e-004	25.6261
Hotel	687027	90.3727	9.0400e-003	1.8700e-003	91.1559
Total		**115.7787**	**0.0116**	**2.4000e-003**	**116.7820**

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	0.4021	1.0000e-005	1.6100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.1300e-003	3.1300e-003	1.0000e-005	0.0000	3.3300e-003
Unmitigated	0.4021	1.0000e-005	1.6100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.1300e-003	3.1300e-003	1.0000e-005	0.0000	3.3300e-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	0.0477					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3543					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	1.6100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.1300e-003	3.1300e-003	1.0000e-005	0.0000	3.3300e-003
Total	**0.4021**	**1.0000e-005**	**1.6100e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.1300e-003**	**3.1300e-003**	**1.0000e-005**	**0.0000**	**3.3300e-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	0.0477					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3543					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	1.6100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.1300e-003	3.1300e-003	1.0000e-005	0.0000	3.3300e-003
Total	**0.4021**	**1.0000e-005**	**1.6100e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.1300e-003**	**3.1300e-003**	**1.0000e-005**	**0.0000**	**3.3300e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.9744	3.4500e-003	2.0900e-003	3.6838
Unmitigated	2.9744	3.4500e-003	2.0900e-003	3.6838

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	2.66351 / 0.295946	2.9744	3.4500e-003	2.0900e-003	3.6838
Total		**2.9744**	**3.4500e-003**	**2.0900e-003**	**3.6838**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e

Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	2.66351 / 0.295946	2.9744	3.4500e-003	2.0900e-003	3.6838
Total		**2.9744**	**3.4500e-003**	**2.0900e-003**	**3.6838**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	11.6700	0.6897	0.0000	28.9118
Unmitigated	11.6700	0.6897	0.0000	28.9118

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000

Hotel	57.49	11.6700	0.6897	0.0000	28.9118
Total		**11.6700**	**0.6897**	**0.0000**	**28.9118**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Hotel	57.49	11.6700	0.6897	0.0000	28.9118
Total		**11.6700**	**0.6897**	**0.0000**	**28.9118**

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

Project Name: Baywood Hotel Project

Project Size

105 hotel	Dwelling Units	0.28	total project acres disturbed
90,161 SF	s.f. residential hotel		s.f. retail
	s.f. office/commercial		s.f. other, specify:
	s.f. other, specify:		
32959	s.f. parking garage	70	spaces
	s.f. parking lot		spaces

Construction Hours 7 am to 5 pm

Complete ALL Portions in Yellow

Qty	Description	HP	Load Factor	Hours/day	Total Work Days	Avg. Hours per day	Comments
	Demolition	**Start Date:**	**2/1/19**	**Total phase:**	**41**		**Overall Import/Export Volumes**
		End Date:	**3/31/2019**				
1	Concrete/Industrial Saws	81	0.73	8	14	3	**Demolition Volume**
1	Excavators	162	0.38	8	14	3	Square footage of buildings to be demolished
1	Rubber-Tired Dozers	255	0.4	8	13	3	(*or* total tons to be hauled)
	Tractors/Loaders/Backhoes	97	0.37			0	2,327 square feet *or*
							_?_ Hauling volume (tons)
	Site Preperation	**Start Date:**	**4/1/2019**	**Total phase:**	**45**		Any pavement demolished and hauled? 2 **tons**
		End Date:	**5/31/2019**				**Soil Hauling Volume**
1	Graders	174	0.41	8	25	4	
1	Rubber Tired Dozers	255	0.4	8	20	4	Export volume = **_?_** cubic yards? See below
	Tractors/Loaders/Backhoes	97	0.37			0	Import volume = **_?_** cubic yards?
	Grading / Excavation	**Start Date:**	**6/1/2019**	**Total phase:**	**43**		
		End Date:	**7/31/2019**				**Soil Hauling Volume**
	Scrapers	**361**	**0.48**			0	
	Excavators	162	0.38			0	Export volume = **_14,200_** cubic yards
	Graders	174	0.41			0	Import volume = **_0_** cubic yards?
	Rubber Tired Dozers	255	0.4			0	
1	Tractors/Loaders/Backhoes	97	0.37	8	43	8	
	Other Equipment?						
	Trenching	**Start Date:**	**8/1/2019**	**Total phase:**	**22**		
		End Date:	**8/31/2019**				
1	Tractor/Loader/Backhoe	97	0.37	8	22	8	
	Excavators	162	0.38			0	
	Other Equipment?						
	Building - Exterior	**Start Date:**	**9/1/2019**	**Total phase:**	**152**		**Cement Trucks 50 Total Round-Trips**
		End Date:	**3/31/2020**				
1	Cranes	226	0.29	8	100	5	Electric? (Y/N) ___ Otherwise assumed diesel
1	Forklifts	89	0.2	4	52	1	Liquid Propane (LPG)? (Y/N) ___ Otherwise Assumed diesel
	Generator Sets	84	0.74			0	Or temporary line power? Yes
	Tractors/Loaders/Backhoes	97	0.37			0	otherwise, assume diesel generator
	Welders	46	0.45			0	
	Other Equipment?					0	
	Building - Interior/Architectural Coating	**Start Date:**	**4/1/2020**	**Total phase:**	**153**		
		End Date:	**10/31/2020**				
112	Air Compressors	78	0.48	4	163	4	
	Aerial Lift	62	0.31			0	
	Other Equipment?						
	Paving	**Start Date:**	**11/1/2020**	**Total phase:**	**22**		
		Start Date:	**12/1/2020**				
1	Cement and Mortar Mixers	9	0.56	8	11	4	
	Pavers	125	0.42			0	
1	Paving Equipment	130	0.36	8	111	40	**Asphalt? ___ cubic yards or ____ round trips? n/a**
	Rollers	80	0.38			0	
	Tractors/Loaders/Backhoes	97	0.37			0	
	Other Equipment?						

Equipment listed in this sheet is to provide an example of inputs
It is assumed that water trucks would be used during grading

Add or subtract phases and equipment, as appropriate
Modify horepower or load factor, as appropriate

Typical Equipment Type & Load Factors

OFFROAD Equipment Type	HP	Load Factor
Aerial Lifts	62	0.31
Air Compressors	78	0.48
Bore/Drill Rigs	205	0.5
Cement and Mortar Mixers	9	0.56
Concrete/Industrial Saws	81	0.73
Cranes	226	0.29
Crawler Tractors	208	0.43
Crushing/Proc. Equipment	85	0.78
Dumpers/Tenders	16	0.38
Excavators	162	0.38
Forklifts	89	0.2
Generator Sets	84	0.74
Graders	174	0.41
Off-Highway Tractors	122	0.44
Off-Highway Trucks	400	0.38
Other Construction Equipment	171	0.42
Other General Industrial Equipment	150	0.34
Other Material Handling Equipment	167	0.4
Pavers	125	0.42
Paving Equipment	130	0.36
Plate Compactors	8	0.43
Pressure Washers	13	0.2
Pumps	84	0.74
Rollers	80	0.38
Rough Terrain Forklifts	100	0.4
Rubber Tired Dozers	255	0.4
Rubber Tired Loaders	199	0.36
Scrapers	361	0.48
Signal Boards	6	0.82
Skid Steer Loaders	64	0.37
Surfacing Equipment	253	0.3
Sweepers/Scrubbers	64	0.46
Tractors/Loaders/Backhoes	97	0.37
Trenchers	80	0.5
Welders	46	0.45

Attachment 3: Construction Health Risk Calculations

Baywood Hotel, San Jose, CA

DPM Construction Emissions and Modeling Emission Rates - Unmitigated

Construction Year	Activity	DPM (ton/year)	Source Type	No. Sources	DPM Emissions (lb/yr)	DPM Emissions (lb/hr)	DPM Emissions (g/s)	Emissions per Point Source (g/s)
2019	Construction	0.0334	Point	42	66.8	0.02033	2.56E-03	6.10E-05
2020	Construction	0.0623	Point	42	124.6	0.03793	4.78E-03	1.14E-04
Total		***0.0957***			***191***	***0.0583***	***0.0073***	
		hr/day =	9	(7am - 4pm)				
		days/yr =	365					
		hours/year =	3285					

PM2.5 Fugitive Dust Construction Emissions for Modeling - Unmitigated

Construction Year	Activity	Area Source	PM2.5 Emissions (ton/year)	PM2.5 Emissions (lb/yr)	PM2.5 Emissions (lb/hr)	PM2.5 Emissions (g/s)	Modeled Area (m^2)	PM2.5 Emission Rate $g/s/m^2$
2019	Construction	CON_FUG	0.0388	77.6	0.02362	2.98E-03	1,285	2.32E-06
2020	Construction	CON_FUG	0.00068	1.4	0.00041	5.22E-05	1,285	4.06E-08
Total			***0.0395***	***79.0***	***0.0240***	***0.0030***		
		hr/day =	9	(7am - 4pm)				
		days/yr =	365					
		hours/year =	3285					

DPM Construction Emissions and Modeling Emission Rates - With Mitigation

Construction Year	Activity	DPM (ton/year)	Source Type	No. Sources	DPM Emissions (lb/yr)	DPM Emissions (lb/hr)	DPM Emissions (g/s)	Emissions per Point Source (g/s)
2019	Construction	0.00243	Point	42	4.9	0.00148	1.86E-04	4.44E-06
2020	Construction	0.00780	Point	42	15.6	0.00475	5.98E-04	1.42E-05
Total		***0.0102***			***20***	***0.0062***	***0.0008***	
		hr/day =	9	(7am - 4pm)				
		days/yr =	365					
		hours/year =	3285					

PM2.5 Fugitive Dust Construction Emissions for Modeling - With Mitigation

Construction Year	Activity	Area Source	PM2.5 Emissions (ton/year)	PM2.5 Emissions (lb/yr)	PM2.5 Emissions (lb/hr)	PM2.5 Emissions (g/s)	Modeled Area (m^2)	PM2.5 Emission Rate $g/s/m^2$
2019	Construction	CON_FUG	0.00948	19.0	0.00577	7.27E-04	1,285	5.66E-07
2020	Construction	CON_FUG	0.00068	1.4	0.00041	5.22E-05	1,285	4.06E-08
Total			***0.0102***	***20.3***	***0.0062***	***0.0008***		
		hr/day =	9	(7am - 4pm)				
		days/yr =	365					
		hours/year =	3285					

Baywood Hotel, San Jose, CA
Construction Health Impacts Summary

Maximum Impacts at Construction MEI Location - Unmitigated

Emissions Year	Maximum Concentrations: Exhaust PM10/DPM ($\mu g/m^3$)	Maximum Concentrations: Fugitive PM2.5 ($\mu g/m^3$)	Cancer Risk (per million): Infant	Cancer Risk (per million): Adult	Hazard Index (-)	Maximum Annual PM2.5 Concentration ($\mu g/m^3$)
2019	0.0962	0.2584	15.8	0.3	0.019	0.41
2020	0.1794	0.0045	29.5	0.5	0.036	0.18
Total	-	-	**45.3**	**0.8**		
Maximum	0.1794	0.2584	-	-	**0.036**	**0.41**

Maximum Impacts at Construction MEI Location - With Mitigation

Emissions Year	Maximum Concentrations: Exhaust PM10/DPM ($\mu g/m^3$)	Maximum Concentrations: Fugitive PM2.5 ($\mu g/m^3$)	Cancer Risk (per million): Infant	Cancer Risk (per million): Adult	Hazard Index (-)	Maximum Annual PM2.5 Concentration ($\mu g/m^3$)
2019	0.0070	0.0630	1.1	0.0	0.001	0.09
2020	0.0225	0.0045	3.7	0.1	0.004	0.03
Total	-	-	**4.8**	**0.1**		
Maximum	0.0225	0.0630	-	-	**0.004**	**0.09**

Maximum Impacts at Baywood Hotel Construction MEI Location - Unmitigated
From Construction Activities for the Hemlock Residential Project

Emissions Year	Maximum Concentrations: Exhaust PM10/DPM ($\mu g/m^3$)	Maximum Concentrations: Fugitive PM2.5 ($\mu g/m^3$)	Cancer Risk (per million): Infant	Cancer Risk (per million): Adult	Hazard Index (-)	Maximum Annual PM2.5 Concentration ($\mu g/m^3$)
2019	0.0156	0.0319	2.6	0.0	0.003	0.05
2020	0.0405	0.0009	6.7	0.1	0.008	0.04
Total	-	-	**9.2**	**0.2**		
Maximum	0.0405	0.0319	-	-	**0.008**	**0.05**

Maximum Impacts at Baywood Hotel Construction MEI Location - With Mitigation
From Construction Activities for the Hemlock Residential Project

Emissions Year	Maximum Concentrations: Exhaust PM10/DPM ($\mu g/m^3$)	Maximum Concentrations: Fugitive PM2.5 ($\mu g/m^3$)	Cancer Risk (per million): Infant	Cancer Risk (per million): Adult	Hazard Index (-)	Maximum Annual PM2.5 Concentration ($\mu g/m^3$)
2019	0.0014	0.0081	0.2	0.0	0.000	0.01
2020	0.0051	0.0009	0.8	0.0	0.001	0.01
Total	-	-	**1.1**	**0.0**		
Maximum	0.0051	0.0081	-	-	**0.001**	**0.01**

Baywood Hotel, San Jose, CA - Without Mitigation
Maximum DPM Cancer Risk Calculations From Construction
Impacts at Off-Site Receptors - 1.5 meter height

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant/Child				Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 9**	**2 - 16**	**16 - 30**
Parameter					
ASF =	10	10	3	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	631	572	261
A =	1	1	1	1	1
EF =	350	350	350	350	350
AT =	70	70	70	70	70
FAH =	1.00	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information			Infant/Child	Adult - Exposure Information			Adult		
			DPM Conc (ug/m3)		Age	Cancer	Modeled DPM Conc (ug/m3)		Age	Cancer		
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Annual**	**Sensitivity Factor**	**Risk (per million)**	**Year**	**Annual**	**Sensitivity Factor**	**Risk (per million)**	**Fugitive PM2.5**	**Total PM2.5**
0	0.25	-0.25 - 0*	-	-	10	-	-	-	-	-		
1	1	0 - 1	2019	0.0805	10	13.22	2019	0.0805	1	0.23	0.3281	0.409
2	1	1 - 2	2020	0.1501	10	24.65	2020	0.1501	1	0.43	0.0057	0.156
3	1	2 - 3		0.0000	3	0.00		0.0000	1	0.00		
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00		
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00		
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00		
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00		
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00		
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00		
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00		
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00		
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00		
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00		
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00		
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00		
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00		
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00		
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00		
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00		
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00		
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00		
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00		
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00		
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00		
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00		
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00		
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00		
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00		
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00		
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00		
Total Increased Cancer Risk						**37.87**				**0.66**		

* Third trimester of pregnancy

Baywood Hotel, San Jose, CA - Without Mitigation
Maximum DPM Cancer Risk Calculations From Construction
Impacts at Off-Site Receptors - 4.5 meter height

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant/Child				Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 9**	**2 - 16**	**16 - 30**
Parameter					
ASF =	10	10	3	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	631	572	261
A =	1	1	1	1	1
EF =	350	350	350	350	350
AT =	70	70	70	70	70
FAH =	1.00	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information			Infant/Child	Adult - Exposure Information			Adult		
			DPM Conc (ug/m3)		Age	Cancer	Modeled DPM Conc (ug/m3)		Age	Cancer		
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Annual**	**Sensitivity Factor**	**Risk (per million)**	**Year**	**Annual**	**Sensitivity Factor**	**Risk (per million)**	**Fugitive PM2.5**	**Total PM2.5**
0	0.25	-0.25 - 0*	-	-	10	-	-	-	-	-		
1	1	0 - 1	2019	0.0962	10	15.80	2019	0.0962	1	0.28	0.2584	0.355
2	1	1 - 2	2020	0.1794	10	29.47	2020	0.1794	1	0.52	0.0045	0.184
3	1	2 - 3		0.0000	3	0.00		0.0000	1	0.00		
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00		
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00		
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00		
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00		
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00		
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00		
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00		
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00		
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00		
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00		
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00		
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00		
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00		
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00		
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00		
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00		
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00		
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00		
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00		
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00		
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00		
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00		
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00		
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00		
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00		
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00		
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00		
Total Increased Cancer Risk						**45.27**				**0.79**		

* Third trimester of pregnancy

Baywood Hotel, San Jose, CA - With Mitigation
Maximum DPM Cancer Risk Calculations From Construction
Impacts at Off-Site Receptors - 1.5 meter height

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant/Child				Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 9**	**2 - 16**	**16 - 30**
Parameter					
ASF =	10	10	3	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	631	572	261
A =	1	1	1	1	1
EF =	350	350	350	350	350
AT =	70	70	70	70	70
FAH =	1.00	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information			Infant/Child	Adult - Exposure Information			Adult		
			DPM Conc (ug/m3)		Age	Cancer	Modeled DPM Conc (ug/m3)		Age	Cancer		
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Annual**	**Sensitivity Factor**	**Risk (per million)**	**Year**	**Annual**	**Sensitivity Factor**	**Risk (per million)**	**Fugitive PM2.5**	**Total PM2.5**
0	0.25	-0.25 - 0*	-	-	10	-	-	-	-	-		
1	1	0 - 1	2019	0.0059	10	0.96	2019	0.0059	1	0.02	0.0801	0.086
2	1	1 - 2	2020	0.0188	10	3.09	2020	0.0188	1	0.05	0.0057	0.025
3	1	2 - 3		0.0000	3	0.00		0.0000	1	0.00		
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00		
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00		
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00		
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00		
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00		
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00		
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00		
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00		
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00		
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00		
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00		
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00		
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00		
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00		
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00		
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00		
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00		
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00		
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00		
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00		
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00		
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00		
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00		
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00		
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00		
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00		
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00		
Total Increased Cancer Risk						**4.05**				**0.07**		

* Third trimester of pregnancy

Baywood Hotel, San Jose, CA - With Mitigation
Maximum DPM Cancer Risk Calculations From Construction
Impacts at Off-Site Receptors - 4.5 meter height

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant/Child				Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 9**	**2 - 16**	**16 - 30**
Parameter					
ASF =	10	10	3	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	631	572	261
A =	1	1	1	1	1
EF =	350	350	350	350	350
AT =	70	70	70	70	70
FAH =	1.00	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information			Infant/Child	Adult - Exposure Information			Adult		
			DPM Conc (ug/m3)		Age	Cancer	Modeled DPM Conc (ug/m3)		Age	Cancer		
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Annual**	**Sensitivity Factor**	**Risk (per million)**	**Year**	**Annual**	**Sensitivity Factor**	**Risk (per million)**	**Fugitive PM2.5**	**Total PM2.5**
0	0.25	-0.25 - 0*	-	-	10	-	-	-	-	-		
1	1	0 - 1	2019	0.0070	10	1.15	2019	0.0070	1	0.02	0.0630	0.070
2	1	1 - 2	2020	0.0225	10	3.69	2020	0.0225	1	0.06	0.0045	0.027
3	1	2 - 3		0.0000	3	0.00		0.0000	1	0.00		
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00		
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00		
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00		
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00		
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00		
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00		
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00		
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00		
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00		
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00		
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00		
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00		
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00		
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00		
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00		
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00		
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00		
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00		
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00		
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00		
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00		
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00		
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00		
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00		
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00		
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00		
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00		
Total Increased Cancer Risk						**4.84**				**0.08**		

* Third trimester of pregnancy

Hemlock Residential, San Jose, CA - Without Mitigation
Maximum DPM Cancer Risk Calculations From Construction
Impacts at Baywood Hotel Construction MEI Receptors-4.5 meter

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant/Child				Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 9**	**2 - 16**	**16 - 30**
Parameter					
ASF =	10	10	3	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	631	572	261
A =	1	1	1	1	1
EF =	350	350	350	350	350
AT =	70	70	70	70	70
FAH =	1.00	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information				Adult - Exposure Information					
			DPM Conc (ug/m3)				Modeled DPM Conc (ug/m3)					
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Annual**	**Age Sensitivity Factor**	**Infant/Child Cancer Risk (per million)**	**Year**	**Annual**	**Age Sensitivity Factor**	**Adult Cancer Risk (per million)**	**Fugitive PM2.5**	**Total PM2.5**
0	0.25	-0.25 - 0*	-	-	10	-	-	-	-	-		
1	1	0 - 1	2019	0.0156	10	2.56	2019	0.0156	1	0.04	0.0319	0.048
2	1	1 - 2	2020	0.0405	10	6.65	2020	0.0405	1	0.12	0.0009	0.041
3	1	2 - 3		0.0000	3	0.00		0.0000	1	0.00		
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00		
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00		
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00		
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00		
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00		
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00		
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00		
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00		
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00		
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00		
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00		
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00		
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00		
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00		
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00		
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00		
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00		
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00		
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00		
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00		
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00		
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00		
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00		
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00		
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00		
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00		
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00		
Total Increased Cancer Risk						**9.21**				**0.16**		

* Third trimester of pregnancy

Hemlock Residential, San Jose, CA - With Mitigation
Maximum DPM Cancer Risk Calculations From Construction
Impacts at Baywood Hotel Construction MEI Receptors-4.5 meter

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant/Child				Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 9**	**2 - 16**	**16 - 30**
Parameter					
ASF =	10	10	3	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	631	572	261
A =	1	1	1	1	1
EF =	350	350	350	350	350
AT =	70	70	70	70	70
FAH =	1.00	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information				Adult - Exposure Information					
			DPM Conc (ug/m3)				Modeled DPM Conc (ug/m3)					
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Annual**	**Age Sensitivity Factor**	**Infant/Child Cancer Risk (per million)**	**Year**	**Annual**	**Age Sensitivity Factor**	**Adult Cancer Risk (per million)**	**Fugitive PM2.5**	**Total PM2.5**
0	0.25	-0.25 - 0*	-	-	10	-	-	-	-	-		
1	1	0 - 1	2019	0.0014	10	0.23	2019	0.0014	1	0.00	0.0081	0.010
2	1	1 - 2	2020	0.0051	10	0.84	2020	0.0051	1	0.01	0.0009	0.006
3	1	2 - 3		0.0000	3	0.00		0.0000	1	0.00		
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00		
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00		
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00		
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00		
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00		
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00		
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00		
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00		
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00		
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00		
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00		
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00		
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00		
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00		
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00		
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00		
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00		
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00		
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00		
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00		
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00		
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00		
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00		
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00		
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00		
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00		
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00		
Total Increased Cancer Risk						**1.07**				**0.02**		

* Third trimester of pregnancy

Attachment 4: Operational Community Risk

Bay Area Air Quality Management District

Roadway Screening Analysis Calculator

County specific tables containing estimates of risk and hazard impacts from roadways in the Bay Area.

INSTRUCTIONS:

Input the site-specific characteristics of your project by using the drop down menu in the "Search Parameter" box. We recommend that this analysis be used for roadways with 10,000 AADT and above.

• County: Select the County where the project is located. The calculator is only applicable for projects within the nine Bay Area counties.

• Roadway Direction: Select the orientation that best matches the roadway. If the roadway orientation is neither clearly north-south nor east-west, use the highest values predicted from either orientation.

• Side of the Roadway: Identify on which side of the roadway the project is located.

• Distance from Roadway: Enter the distance in feet from the nearest edge of the roadway to the project site. The calculator estimates values for distances greater than 10 feet and less than 1000 feet. For distances greater than 1000 feet, the user can choose to extrapolate values using a distribution curve or apply 1000 feet values for greater distances.

• Annual Average Daily Traffic (ADT): Enter the annual average daily traffic on the roadway. These data may be collected from the city or the county (if the area is unincorporated).

When the user has completed the data entries, the screening level PM2.5 annual average concentration and the cancer risk results will appear in the Results Box on the right. Please note that the roadway tool is not applicable for California State Highways and the District refers the user to the Highway Screening Analysis Tool at: http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx.

Notes and References listed below the Search Boxes

Search Parameters

County	Santa Clara
Roadway Direction	East-West
Side of the Roadway	South
Distance from Roadway	700 feet
Annual Average Daily Traffic (ADT)	44,400

Results

Santa Clara County

EAST-WEST DIRECTIONAL ROADWAY

PM2.5 annual average

0.094 ($\mu g/m^3$)

Cancer Risk

3.79 (per million)

Stevens Creek Boulevard

Cumulative plus project volumes from traffic report
Data for Santa Clara County based on meteorological data collected from San Jose Airport in 1997

Adjusted for 2015 OEHHA and EMFAC2014 for 2018

2.61

(per million)

Note that EMFAC2014 predicts DSL PM2.5 aggragate rates in 2018 that are 46% of EMFAC2011 for 2014. TOG gasoline rates are 56% of EMFAC2011 year 2014 rates. This is for light- and medium-duty vehciles traveling at 30 mph for Bay Area

Notes and References:

1. Emissions were developed using EMFAC2011 for fleet mix in 2014 assuming 10,000 AADT and includes impacts from diesel and gasoline vehicle exhaust, brake and tire wear, and resuspended dust.
2. Roadways were modeled using ~~CALINE4~~ Cal3qhcr air dispersion model assuming a source length of one kilometer. Meteorological data used to estimate the screening values are noted at the bottom of the "Results" box.
3. Cancer risks were estimated for 70 year lifetime exposure starting in 2014 that includes sensitivity values for early life exposures and OEHHA toxicity values adopted in 2013.

Bay Area Air Quality Management District

Risk & Hazard Stationary Source Inquiry Form

This form is required when users request stationary source data from BAAQMD

This form is to be used with the BAAQMD's Google Earth stationary source screening tables.

Click here for guidance on coducting risk & hazard screening, including roadways & freeways, refer to the District's Risk & Hazard Analysis flow chart.

Click here for District's Recommended Methods for Screening and Modeling Local Risks and Hazards document.

Table A: Requester Contact Information

Date of Request	**5/24/2018**
Contact Name	Casey Zaglin
Affiliation	Illingworth & Rodkin, Inc.
Phone	707-794-0400 x23
Email	czaglin@illingworthrodkin.com
Project Name	Baywood Hotel
Address	375 S Baywood Ave
City	San Jose
County	Santa Clara
Type (residential, commercial, mixed use, industrial, etc.)	Hotel
Project Size (# of units or building square feet)	105 rooms
Comments:	

For Air District assistance, the following steps must be completed:

1. Complete all the contact and project information requested in Table A. Incomplete forms will not be processed. Please include a project site map.

2. Download and install the free program Google Earth, **http://www.google.com/earth/download/ge/,** and then download the county specific Google Earth stationary source application files from the District's website, **http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx.** The small points on the map represent stationary sources permitted by the District (Map A on right). These permitted sources include diesel back-up generators, gas stations, dry cleaners, boilers, printers, auto spray booths, etc. Click on a point to view the source's Information Table, including the name, location, and preliminary estimated cancer risk, hazard index, and PM2.5 concentration.

3. Find the project site in Google Earth by inputting the site's address in the Google Earth search box.

4. Identify stationary sources within at least a 1000ft radius of project site. Verify that the location of the source on the map matches with the source's address in the Information Table, by using the Google Earth address search box to confirm the source's address location. Please report any mapping errors to the District.

5. List the stationary source information in Table B section only.

6. Note that a small percentage of the stationary sources have Health Risk Screening Assessment (HRSA) data INSTEAD of screening level data. These sources will be noted by an asterisk next to the Plant Name (Map B on right). If HRSA values are presented, these values have already been modeled and cannot be adjusted further.

7. Email this completed form to District staff. District staff will provide the most recent risk, hazard, and PM2.5 data that are available for the source(s). If this information or data are not available, source emissions data will be provided. Staff will respond to inquiries within three weeks.

Note that a public records request received for the same stationary source information will cancel the processing of your SSIF request.

Submit forms, maps, and questions to Areana Flores at 415-749-4616, or aflores@baaqmd.gov

Table B: Google Earth data

Res MEI

Distance from Receptor (feet) or MEI[1]	Facility Name	Address	Plant No.	Cancer Risk[2]	Hazard Risk[2]	$PM_{2.5}$[2]	Source No.[3]	Type of Source[4]	Fuel Code[5]	Status/Comments	Distance Adjustment Multiplier	Adjusted Cancer Risk Estimate	Adjusted Hazard Risk	Adjusted PM2.5
750	Valley Fair Unocal 76 #253969	2850 Stevens Creek Blvd	G8469	3.23	0.03798363	na				No updated screening values; consider using available screening values with distance multiplier	0.02	0.07	0.00	#VALUE!
1000	FRIT, Santana Row	400 SO WINCHESTER BLVD, BLDG 13	13040	0.4	0	0.023		various boilers & Diesel Generators		updated screening values with 2014 values, consider using screening values	0.04	0.02	0.00	0.00

Footnotes:

1. Maximally exposed individual
2. These Cancer Risk, Hazard Index, and PM2.5 columns represent the values in the Google Earth Plant Information Table.
3. Each plant may have multiple permits and sources.
4. Permitted sources include diesel back-up generators, gas stations, dry cleaners, boilers, printers, auto spray booths, etc.
5. Fuel codes: 98 = diesel, 189 = Natural Gas.
6. If a Health Risk Screening Assessment (HRSA) was completed for the source, the application number will be listed here.
7. The date that the HRSA was completed.
8. Engineer who completed the HRSA. For District purposes only.
9. All HRSA completed before 1/5/2010 need to be multiplied by an age sensitivity factor of 1.7.
10. The HRSA "Chronic Health" number represents the Hazard Index.
11. Further information about common sources:
    a. Sources that only include diesel internal combustion engines can be adjusted using the BAAQMD's Diesel Multiplier worksheet.
    b. The risk from natural gas boilers used for space heating when <25 MM BTU/hr would have an estimated cancer risk of one in a million or less, and a chronic hazard
    c. BAAQMD Reg 11 Rule 16 required that all co-residential (sharing a wall, floor, ceiling or is in the same building as a residential unit) dry cleaners cease use of perc on July 1, 2010. Therefore, there is no cancer risk, hazard or PM2.5 concentrations from co-residential dry cleaning businesses in the BAAQMD.
    d. Non co-residential dry cleaners must phase out use of perc by Jan. 1, 2023. Therefore, the risk from these dry cleaners does not need to be factored in over a 70-year period, but
    e. Gas stations can be adjusted using BAAQMD's Gas Station Distance Mulitplier worksheet.
    f. Unless otherwise noted, exempt sources are considered insignificant. See BAAQMD Reg 2 Rule 1 for a list of exempt sources.
    g. This spray booth is considered to be insignificant.

Date last updated:
03/13/2018

Baywood Hotel Project
Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	70.00	Space	0.00	32,959.00	0
Hotel	105.00	Room	0.30	90,161.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - 290 lb/MWh CO2 is based on PG&E's current intensity factor

Land Use - lot acreage is acreage of the project site
square footages come from latest plans

Construction Phase - Construction phasing based on information provided by applicant

Vehicle Trips - Based on trip rates in the TIA

Energy Use -

Mobile Land Use Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	153.00
tblConstructionPhase	NumDays	100.00	174.00

tblConstructionPhase	NumDays	10.00	41.00
tblConstructionPhase	NumDays	2.00	43.00
tblConstructionPhase	NumDays	1.00	45.00
tblGrading	AcresOfGrading	22.50	0.50
tblLandUse	LandUseSquareFeet	28,000.00	32,959.00
tblLandUse	LandUseSquareFeet	152,460.00	90,161.00
tblLandUse	LotAcreage	0.63	0.00
tblLandUse	LotAcreage	3.50	0.30
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblTripsAndVMT	VendorTripNumber	0.00	20.00
tblTripsAndVMT	VendorTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	13.00	52.00
tblTripsAndVMT	WorkerTripNumber	52.00	18.00
tblVehicleTrips	ST_TR	8.19	12.23
tblVehicleTrips	SU_TR	5.95	12.23
tblVehicleTrips	WD_TR	8.17	12.23

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	0.1322	1.2680	0.9981	1.7700e-003	0.0329	0.0698	0.1027	0.0133	0.0651	0.0785	0.0000	156.0458	156.0458	0.0372	0.0000	156.9750
2020	0.5535	0.6488	0.6113	1.0600e-003	0.0123	0.0369	0.0492	3.2700e-003	0.0348	0.0380	0.0000	90.7085	90.7085	0.0201	0.0000	91.2103

Maximum	**0.5535**	**1.2680**	**0.9981**	**1.7700e-003**	**0.0329**	**0.0698**	**0.1027**	**0.0133**	**0.0651**	**0.0785**	**0.0000**	**156.0458**	**156.0458**	**0.0372**	**0.0000**	**156.9750**

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	0.1322	1.2680	0.9981	1.7700e-003	0.0329	0.0698	0.1027	0.0133	0.0651	0.0785	0.0000	156.0456	156.0456	0.0372	0.0000	156.9749
2020	0.5535	0.6488	0.6113	1.0600e-003	0.0123	0.0369	0.0492	3.2700e-003	0.0348	0.0380	0.0000	90.7084	90.7084	0.0201	0.0000	91.2102
Maximum	**0.5535**	**1.2680**	**0.9981**	**1.7700e-003**	**0.0329**	**0.0698**	**0.1027**	**0.0133**	**0.0651**	**0.0785**	**0.0000**	**156.0456**	**156.0456**	**0.0372**	**0.0000**	**156.9749**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	2-1-2019	4-30-2019	0.3064	0.3064
2	5-1-2019	7-31-2019	0.3166	0.3166
3	8-1-2019	10-31-2019	0.4659	0.4659
4	11-1-2019	1-31-2020	0.4607	0.4607
5	2-1-2020	4-30-2020	0.4240	0.4240
6	5-1-2020	7-31-2020	0.2700	0.2700
7	8-1-2020	9-30-2020	0.1790	0.1790
		Highest	0.4659	0.4659

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	0.4021	1.0000e-005	1.6100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.1300e-003	3.1300e-003	1.0000e-005	0.0000	3.3300e-003
Energy	0.0215	0.1958	0.1645	1.1800e-003		0.0149	0.0149		0.0149	0.0149	0.0000	328.9689	328.9689	0.0157	6.3000e-003	331.2391
Mobile	0.3019	1.2088	3.2606	0.0103	0.9073	9.0300e-003	0.9163	0.2429	8.4400e-003	0.2513	0.0000	941.7904	941.7904	0.0343	0.0000	942.6489
Waste						0.0000	0.0000		0.0000	0.0000	11.6700	0.0000	11.6700	0.6897	0.0000	28.9118
Water						0.0000	0.0000		0.0000	0.0000	0.8450	2.0321	2.8771	0.0870	2.0900e-003	5.6751
Total	**0.7256**	**1.4046**	**3.4267**	**0.0115**	**0.9073**	**0.0239**	**0.9312**	**0.2429**	**0.0233**	**0.2662**	**12.5150**	**1,272.7945**	**1,285.3095**	**0.8267**	**8.3900e-003**	**1,308.4783**

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	0.4021	1.0000e-005	1.6100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.1300e-003	3.1300e-003	1.0000e-005	0.0000	3.3300e-003
Energy	0.0215	0.1958	0.1645	1.1800e-003		0.0149	0.0149		0.0149	0.0149	0.0000	328.9689	328.9689	0.0157	6.3000e-003	331.2391
Mobile	0.3019	1.2088	3.2606	0.0103	0.9073	9.0300e-003	0.9163	0.2429	8.4400e-003	0.2513	0.0000	941.7904	941.7904	0.0343	0.0000	942.6489
Waste						0.0000	0.0000		0.0000	0.0000	11.6700	0.0000	11.6700	0.6897	0.0000	28.9118
Water						0.0000	0.0000		0.0000	0.0000	0.8450	2.0321	2.8771	0.0870	2.0900e-003	5.6751
Total	**0.7256**	**1.4046**	**3.4267**	**0.0115**	**0.9073**	**0.0239**	**0.9312**	**0.2429**	**0.0233**	**0.2662**	**12.5150**	**1,272.7945**	**1,285.3095**	**0.8267**	**8.3900e-003**	**1,308.4783**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/1/2019	3/31/2019	5	41	
2	Site Preparation	Site Preparation	4/1/2019	5/31/2019	5	45	
3	Grading	Grading	6/1/2019	7/31/2019	5	43	
4	Trenching	Trenching	8/1/2019	8/31/2019	5	22	
5	Building Construction	Building Construction	9/1/2019	4/30/2020	5	174	
6	Architectural Coating	Architectural Coating	5/1/2020	12/1/2020	5	153	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 135,242; Non-Residential Outdoor: 45,081; Striped Parking

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Trenching	Cranes	1	4.00	231	0.29
Trenching	Forklifts	2	6.00	89	0.20
Trenching	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cement and Mortar Mixers	4	6.00	9	0.56
Building Construction	Cranes	1	4.00	231	0.29

Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Pavers	1	7.00	130	0.42
Building Construction	Rollers	1	7.00	80	0.38
Building Construction	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	5	52.00	20.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	10	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	0.0195	0.1764	0.1577	2.5000e-004		0.0110	0.0110		0.0105	0.0105	0.0000	21.5665	21.5665	4.1100e-003	0.0000	21.6693
Total	**0.0195**	**0.1764**	**0.1577**	**2.5000e-004**		**0.0110**	**0.0110**		**0.0105**	**0.0105**	**0.0000**	**21.5665**	**21.5665**	**4.1100e-003**	**0.0000**	**21.6693**

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	7.4000e-004	5.5000e-004	5.7300e-003	2.0000e-005	1.6300e-003	1.0000e-005	1.6400e-003	4.3000e-004	1.0000e-005	4.4000e-004	0.0000	1.4393	1.4393	4.0000e-005	0.0000	1.4403
Total	**7.4000e-004**	**5.5000e-004**	**5.7300e-003**	**2.0000e-005**	**1.6300e-003**	**1.0000e-005**	**1.6400e-003**	**4.3000e-004**	**1.0000e-005**	**4.4000e-004**	**0.0000**	**1.4393**	**1.4393**	**4.0000e-005**	**0.0000**	**1.4403**

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	0.0195	0.1764	0.1577	2.5000e-004		0.0110	0.0110		0.0105	0.0105	0.0000	21.5665	21.5665	4.1100e-003	0.0000	21.6693
Total	**0.0195**	**0.1764**	**0.1577**	**2.5000e-004**		**0.0110**	**0.0110**		**0.0105**	**0.0105**	**0.0000**	**21.5665**	**21.5665**	**4.1100e-003**	**0.0000**	**21.6693**

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	7.4000e-004	5.5000e-004	5.7300e-003	2.0000e-005	1.6300e-003	1.0000e-005	1.6400e-003	4.3000e-004	1.0000e-005	4.4000e-004	0.0000	1.4393	1.4393	4.0000e-005	0.0000	1.4403
Total	**7.4000e-004**	**5.5000e-004**	**5.7300e-003**	**2.0000e-005**	**1.6300e-003**	**1.0000e-005**	**1.6400e-003**	**4.3000e-004**	**1.0000e-005**	**4.4000e-004**	**0.0000**	**1.4393**	**1.4393**	**4.0000e-005**	**0.0000**	**1.4403**

3.3 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					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0162	0.2006	0.0932	2.2000e-004		8.2600e-003	8.2600e-003		7.6000e-003	7.6000e-003	0.0000	19.7007	19.7007	6.2300e-003	0.0000	19.8565
Total	**0.0162**	**0.2006**	**0.0932**	**2.2000e-004**	**2.7000e-004**	**8.2600e-003**	**8.5300e-003**	**3.0000e-005**	**7.6000e-003**	**7.6300e-003**	**0.0000**	**19.7007**	**19.7007**	**6.2300e-003**	**0.0000**	**19.8565**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	3.0000e-004	3.1400e-003	1.0000e-005	8.9000e-004	1.0000e-005	9.0000e-004	2.4000e-004	1.0000e-005	2.4000e-004	0.0000	0.7898	0.7898	2.0000e-005	0.0000	0.7904
Total	**4.1000e-004**	**3.0000e-004**	**3.1400e-003**	**1.0000e-005**	**8.9000e-004**	**1.0000e-005**	**9.0000e-004**	**2.4000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.7898**	**0.7898**	**2.0000e-005**	**0.0000**	**0.7904**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0162	0.2006	0.0932	2.2000e-004		8.2600e-003	8.2600e-003		7.6000e-003	7.6000e-003	0.0000	19.7007	19.7007	6.2300e-003	0.0000	19.8565
Total	**0.0162**	**0.2006**	**0.0932**	**2.2000e-004**	**2.7000e-004**	**8.2600e-003**	**8.5300e-003**	**3.0000e-005**	**7.6000e-003**	**7.6300e-003**	**0.0000**	**19.7007**	**19.7007**	**6.2300e-003**	**0.0000**	**19.8565**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	3.0000e-004	3.1400e-003	1.0000e-005	8.9000e-004	1.0000e-005	9.0000e-004	2.4000e-004	1.0000e-005	2.4000e-004	0.0000	0.7898	0.7898	2.0000e-005	0.0000	0.7904
Total	**4.1000e-004**	**3.0000e-004**	**3.1400e-003**	**1.0000e-005**	**8.9000e-004**	**1.0000e-005**	**9.0000e-004**	**2.4000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.7898**	**0.7898**	**2.0000e-005**	**0.0000**	**0.7904**

3.4 Grading - 2019

Unmitigated Construction On-Site

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

Category	tons/yr										MT/yr					
Fugitive Dust					0.0162	0.0000	0.0162	8.9000e-003	0.0000	8.9000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0205	0.1850	0.1654	2.6000e-004		0.0116	0.0116		0.0110	0.0110	0.0000	22.6185	22.6185	4.3100e-003	0.0000	22.7263
Total	**0.0205**	**0.1850**	**0.1654**	**2.6000e-004**	**0.0162**	**0.0116**	**0.0277**	**8.9000e-003**	**0.0110**	**0.0199**	**0.0000**	**22.6185**	**22.6185**	**4.3100e-003**	**0.0000**	**22.7263**

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	7.8000e-004	5.8000e-004	6.0100e-003	2.0000e-005	1.7100e-003	1.0000e-005	1.7200e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.5095	1.5095	4.0000e-005	0.0000	1.5105
Total	**7.8000e-004**	**5.8000e-004**	**6.0100e-003**	**2.0000e-005**	**1.7100e-003**	**1.0000e-005**	**1.7200e-003**	**4.5000e-004**	**1.0000e-005**	**4.6000e-004**	**0.0000**	**1.5095**	**1.5095**	**4.0000e-005**	**0.0000**	**1.5105**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0162	0.0000	0.0162	8.9000e-003	0.0000	8.9000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0205	0.1850	0.1654	2.6000e-004		0.0116	0.0116		0.0110	0.0110	0.0000	22.6185	22.6185	4.3100e-003	0.0000	22.7263
Total	**0.0205**	**0.1850**	**0.1654**	**2.6000e-004**	**0.0162**	**0.0116**	**0.0277**	**8.9000e-003**	**0.0110**	**0.0199**	**0.0000**	**22.6185**	**22.6185**	**4.3100e-003**	**0.0000**	**22.7263**

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	7.8000e-004	5.8000e-004	6.0100e-003	2.0000e-005	1.7100e-003	1.0000e-005	1.7200e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.5095	1.5095	4.0000e-005	0.0000	1.5105
Total	**7.8000e-004**	**5.8000e-004**	**6.0100e-003**	**2.0000e-005**	**1.7100e-003**	**1.0000e-005**	**1.7200e-003**	**4.5000e-004**	**1.0000e-005**	**4.6000e-004**	**0.0000**	**1.5095**	**1.5095**	**4.0000e-005**	**0.0000**	**1.5105**

3.5 Trenching - 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	0.0105	0.1080	0.0830	1.3000e-004		6.6600e-003	6.6600e-003		6.1300e-003	6.1300e-003	0.0000	11.2531	11.2531	3.5600e-003	0.0000	11.3421
Total	**0.0105**	**0.1080**	**0.0830**	**1.3000e-004**		**6.6600e-003**	**6.6600e-003**		**6.1300e-003**	**6.1300e-003**	**0.0000**	**11.2531**	**11.2531**	**3.5600e-003**	**0.0000**	**11.3421**

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	1.0800e-003	0.0278	7.4600e-003	6.0000e-005	1.4500e-003	2.0000e-004	1.6500e-003	4.2000e-004	1.9000e-004	6.1000e-004	0.0000	5.7871	5.7871	2.9000e-004	0.0000	5.7943
Worker	2.0800e-003	1.5500e-003	0.0160	4.0000e-005	4.5400e-003	3.0000e-005	4.5700e-003	1.2100e-003	3.0000e-005	1.2300e-003	0.0000	4.0159	4.0159	1.1000e-004	0.0000	4.0187
Total	**3.1600e-003**	**0.0293**	**0.0234**	**1.0000e-004**	**5.9900e-003**	**2.3000e-004**	**6.2200e-003**	**1.6300e-003**	**2.2000e-004**	**1.8400e-003**	**0.0000**	**9.8031**	**9.8031**	**4.0000e-004**	**0.0000**	**9.8130**

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	0.0105	0.1080	0.0830	1.3000e-004		6.6600e-003	6.6600e-003		6.1300e-003	6.1300e-003	0.0000	11.2530	11.2530	3.5600e-003	0.0000	11.3421
Total	**0.0105**	**0.1080**	**0.0830**	**1.3000e-004**		**6.6600e-003**	**6.6600e-003**		**6.1300e-003**	**6.1300e-003**	**0.0000**	**11.2530**	**11.2530**	**3.5600e-003**	**0.0000**	**11.3421**

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	1.0800e-003	0.0278	7.4600e-003	6.0000e-005	1.4500e-003	2.0000e-004	1.6500e-003	4.2000e-004	1.9000e-004	6.1000e-004	0.0000	5.7871	5.7871	2.9000e-004	0.0000	5.7943
Worker	2.0800e-003	1.5500e-003	0.0160	4.0000e-005	4.5400e-003	3.0000e-005	4.5700e-003	1.2100e-003	3.0000e-005	1.2300e-003	0.0000	4.0159	4.0159	1.1000e-004	0.0000	4.0187

Total	**3.1600e-003**	**0.0293**	**0.0234**	**1.0000e-004**	**5.9900e-003**	**2.3000e-004**	**6.2200e-003**	**1.6300e-003**	**2.2000e-004**	**1.8400e-003**	**0.0000**	**9.8031**	**9.8031**	**4.0000e-004**	**0.0000**	**9.8130**

3.6 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	0.0575	0.5651	0.4387	7.1000e-004		0.0320	0.0320		0.0296	0.0296	0.0000	61.8681	61.8681	0.0183	0.0000	62.3257
Total	**0.0575**	**0.5651**	**0.4387**	**7.1000e-004**		**0.0320**	**0.0320**		**0.0296**	**0.0296**	**0.0000**	**61.8681**	**61.8681**	**0.0183**	**0.0000**	**62.3257**

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	2.8400e-003	2.1200e-003	0.0219	6.0000e-005	6.2100e-003	4.0000e-005	6.2500e-003	1.6500e-003	4.0000e-005	1.6900e-003	0.0000	5.4973	5.4973	1.5000e-004	0.0000	5.5011
Total	**2.8400e-003**	**2.1200e-003**	**0.0219**	**6.0000e-005**	**6.2100e-003**	**4.0000e-005**	**6.2500e-003**	**1.6500e-003**	**4.0000e-005**	**1.6900e-003**	**0.0000**	**5.4973**	**5.4973**	**1.5000e-004**	**0.0000**	**5.5011**

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	0.0575	0.5651	0.4387	7.1000e-004		0.0320	0.0320		0.0296	0.0296	0.0000	61.8680	61.8680	0.0183	0.0000	62.3256
Total	**0.0575**	**0.5651**	**0.4387**	**7.1000e-004**		**0.0320**	**0.0320**		**0.0296**	**0.0296**	**0.0000**	**61.8680**	**61.8680**	**0.0183**	**0.0000**	**62.3256**

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	2.8400e-003	2.1200e-003	0.0219	6.0000e-005	6.2100e-003	4.0000e-005	6.2500e-003	1.6500e-003	4.0000e-005	1.6900e-003	0.0000	5.4973	5.4973	1.5000e-004	0.0000	5.5011
Total	**2.8400e-003**	**2.1200e-003**	**0.0219**	**6.0000e-005**	**6.2100e-003**	**4.0000e-005**	**6.2500e-003**	**1.6500e-003**	**4.0000e-005**	**1.6900e-003**	**0.0000**	**5.4973**	**5.4973**	**1.5000e-004**	**0.0000**	**5.5011**

3.6 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0528	0.5163	0.4324	7.1000e-004		0.0283	0.0283		0.0262	0.0262	0.0000	60.6474	60.6474	0.0183	0.0000	61.1049
Total	**0.0528**	**0.5163**	**0.4324**	**7.1000e-004**		**0.0283**	**0.0283**		**0.0262**	**0.0262**	**0.0000**	**60.6474**	**60.6474**	**0.0183**	**0.0000**	**61.1049**

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	2.6000e-003	1.8700e-003	0.0196	6.0000e-005	6.2100e-003	4.0000e-005	6.2500e-003	1.6500e-003	4.0000e-005	1.6900e-003	0.0000	5.3256	5.3256	1.3000e-004	0.0000	5.3288
Total	**2.6000e-003**	**1.8700e-003**	**0.0196**	**6.0000e-005**	**6.2100e-003**	**4.0000e-005**	**6.2500e-003**	**1.6500e-003**	**4.0000e-005**	**1.6900e-003**	**0.0000**	**5.3256**	**5.3256**	**1.3000e-004**	**0.0000**	**5.3288**

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	0.0528	0.5163	0.4324	7.1000e-004		0.0283	0.0283		0.0262	0.0262	0.0000	60.6473	60.6473	0.0183	0.0000	61.1048
Total	**0.0528**	**0.5163**	**0.4324**	**7.1000e-004**		**0.0283**	**0.0283**		**0.0262**	**0.0262**	**0.0000**	**60.6473**	**60.6473**	**0.0183**	**0.0000**	**61.1048**

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	2.6000e-003	1.8700e-003	0.0196	6.0000e-005	6.2100e-003	4.0000e-005	6.2500e-003	1.6500e-003	4.0000e-005	1.6900e-003	0.0000	5.3256	5.3256	1.3000e-004	0.0000	5.3288
Total	**2.6000e-003**	**1.8700e-003**	**0.0196**	**6.0000e-005**	**6.2100e-003**	**4.0000e-005**	**6.2500e-003**	**1.6500e-003**	**4.0000e-005**	**1.6900e-003**	**0.0000**	**5.3256**	**5.3256**	**1.3000e-004**	**0.0000**	**5.3288**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4770					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0185	0.1288	0.1401	2.3000e-004		8.4900e-003	8.4900e-003		8.4900e-003	8.4900e-003	0.0000	19.5324	19.5324	1.5100e-003	0.0000	19.5702
Total	**0.4955**	**0.1288**	**0.1401**	**2.3000e-004**		**8.4900e-003**	**8.4900e-003**		**8.4900e-003**	**8.4900e-003**	**0.0000**	**19.5324**	**19.5324**	**1.5100e-003**	**0.0000**	**19.5702**

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	2.5400e-003	1.8300e-003	0.0192	6.0000e-005	6.0700e-003	4.0000e-005	6.1100e-003	1.6100e-003	4.0000e-005	1.6500e-003	0.0000	5.2031	5.2031	1.3000e-004	0.0000	5.2063
Total	**2.5400e-003**	**1.8300e-003**	**0.0192**	**6.0000e-005**	**6.0700e-003**	**4.0000e-005**	**6.1100e-003**	**1.6100e-003**	**4.0000e-005**	**1.6500e-003**	**0.0000**	**5.2031**	**5.2031**	**1.3000e-004**	**0.0000**	**5.2063**

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	0.4770					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0185	0.1288	0.1401	2.3000e-004		8.4900e-003	8.4900e-003		8.4900e-003	8.4900e-003	0.0000	19.5324	19.5324	1.5100e-003	0.0000	19.5702
Total	**0.4955**	**0.1288**	**0.1401**	**2.3000e-004**		**8.4900e-003**	**8.4900e-003**		**8.4900e-003**	**8.4900e-003**	**0.0000**	**19.5324**	**19.5324**	**1.5100e-003**	**0.0000**	**19.5702**

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	2.5400e-003	1.8300e-003	0.0192	6.0000e-005	6.0700e-003	4.0000e-005	6.1100e-003	1.6100e-003	4.0000e-005	1.6500e-003	0.0000	5.2031	5.2031	1.3000e-004	0.0000	5.2063
Total	**2.5400e-003**	**1.8300e-003**	**0.0192**	**6.0000e-005**	**6.0700e-003**	**4.0000e-005**	**6.1100e-003**	**1.6100e-003**	**4.0000e-005**	**1.6500e-003**	**0.0000**	**5.2031**	**5.2031**	**1.3000e-004**	**0.0000**	**5.2063**

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	0.3019	1.2088	3.2606	0.0103	0.9073	9.0300e-003	0.9163	0.2429	8.4400e-003	0.2513	0.0000	941.7904	941.7904	0.0343	0.0000	942.6489
Unmitigated	0.3019	1.2088	3.2606	0.0103	0.9073	9.0300e-003	0.9163	0.2429	8.4400e-003	0.2513	0.0000	941.7904	941.7904	0.0343	0.0000	942.6489

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Hotel	1,284.15	1,284.15	1284.15	2,439,796	2,439,796
Total	1,284.15	1,284.15	1,284.15	2,439,796	2,439,796

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Hotel	9.50	7.30	7.30	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
Enclosed Parking with Elevator	0.607897	0.037434	0.184004	0.107261	0.014919	0.004991	0.012447	0.020659	0.002115	0.001554	0.005334	0.000623	0.000761
Hotel	0.607897	0.037434	0.184004	0.107261	0.014919	0.004991	0.012447	0.020659	0.002115	0.001554	0.005334	0.000623	0.000761

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	115.7787	115.7787	0.0116	2.4000e-003	116.7820
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	115.7787	115.7787	0.0116	2.4000e-003	116.7820
NaturalGas Mitigated	0.0215	0.1958	0.1645	1.1800e-003		0.0149	0.0149		0.0149	0.0149	0.0000	213.1902	213.1902	4.0900e-003	3.9100e-003	214.4571
NaturalGas Unmitigated	0.0215	0.1958	0.1645	1.1800e-003		0.0149	0.0149		0.0149	0.0149	0.0000	213.1902	213.1902	4.0900e-003	3.9100e-003	214.4571

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					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	3.99503e+006	0.0215	0.1958	0.1645	1.1800e-003		0.0149	0.0149		0.0149	0.0149	0.0000	213.1902	213.1902	4.0900e-003	3.9100e-003	214.4571
Total		**0.0215**	**0.1958**	**0.1645**	**1.1800e-003**		**0.0149**	**0.0149**		**0.0149**	**0.0149**	**0.0000**	**213.1902**	**213.1902**	**4.0900e-003**	**3.9100e-003**	**214.4571**

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					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	3.99503e+006	0.0215	0.1958	0.1645	1.1800e-003		0.0149	0.0149		0.0149	0.0149	0.0000	213.1902	213.1902	4.0900e-003	3.9100e-003	214.4571
Total		**0.0215**	**0.1958**	**0.1645**	**1.1800e-003**		**0.0149**	**0.0149**		**0.0149**	**0.0149**	**0.0000**	**213.1902**	**213.1902**	**4.0900e-003**	**3.9100e-003**	**214.4571**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	193140	25.4060	2.5400e-003	5.3000e-004	25.6261
Hotel	687027	90.3727	9.0400e-003	1.8700e-003	91.1559
Total		**115.7787**	**0.0116**	**2.4000e-003**	**116.7820**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	193140	25.4060	2.5400e-003	5.3000e-004	25.6261
Hotel	687027	90.3727	9.0400e-003	1.8700e-003	91.1559
Total		**115.7787**	**0.0116**	**2.4000e-003**	**116.7820**

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	0.4021	1.0000e-005	1.6100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.1300e-003	3.1300e-003	1.0000e-005	0.0000	3.3300e-003
Unmitigated	0.4021	1.0000e-005	1.6100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.1300e-003	3.1300e-003	1.0000e-005	0.0000	3.3300e-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	0.0477					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3543					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	1.6100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.1300e-003	3.1300e-003	1.0000e-005	0.0000	3.3300e-003
Total	**0.4021**	**1.0000e-005**	**1.6100e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.1300e-003**	**3.1300e-003**	**1.0000e-005**	**0.0000**	**3.3300e-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	0.0477					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3543					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	1.6100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.1300e-003	3.1300e-003	1.0000e-005	0.0000	3.3300e-003
Total	**0.4021**	**1.0000e-005**	**1.6100e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.1300e-003**	**3.1300e-003**	**1.0000e-005**	**0.0000**	**3.3300e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.8771	0.0870	2.0900e-003	5.6751
Unmitigated	2.8771	0.0870	2.0900e-003	5.6751

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e

Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	2.66351 / 0.295946	2.8771	0.0870	2.0900e-003	5.6751
Total		**2.8771**	**0.0870**	**2.0900e-003**	**5.6751**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	2.66351 / 0.295946	2.8771	0.0870	2.0900e-003	5.6751
Total		**2.8771**	**0.0870**	**2.0900e-003**	**5.6751**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	11.6700	0.6897	0.0000	28.9118
Unmitigated	11.6700	0.6897	0.0000	28.9118

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Hotel	57.49	11.6700	0.6897	0.0000	28.9118
Total		**11.6700**	**0.6897**	**0.0000**	**28.9118**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Hotel	57.49	11.6700	0.6897	0.0000	28.9118
Total		**11.6700**	**0.6897**	**0.0000**	**28.9118**

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

Baywood Hotel Site Existing Uses - Santa Clara County, Annual

Baywood Hotel Site Existing Uses

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	2.00	Dwelling Unit	0.30	3,600.00	6

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 intensity factor based on PG&E's most recent estimate

Land Use - Lot acreage based on acreage of the project site

Vehicle Trips - Trip rate is based on information in TIA

Energy Use -

Mobile Land Use Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	0.65	0.30
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblVehicleTrips	ST_TR	9.91	9.44
tblVehicleTrips	SU_TR	8.62	9.44

tblVehicleTrips	WD_TR	9.52	9.44

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	0.0826	0.5717	0.4523	6.9000e-004	2.2700e-003	0.0351	0.0374	7.7000e-004	0.0325	0.0332	0.0000	62.0374	62.0374	0.0183	0.0000	62.4947
Maximum	**0.0826**	**0.5717**	**0.4523**	**6.9000e-004**	**2.2700e-003**	**0.0351**	**0.0374**	**7.7000e-004**	**0.0325**	**0.0332**	**0.0000**	**62.0374**	**62.0374**	**0.0183**	**0.0000**	**62.4947**

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	0.0826	0.5717	0.4523	6.9000e-004	2.2700e-003	0.0351	0.0374	7.7000e-004	0.0325	0.0332	0.0000	62.0373	62.0373	0.0183	0.0000	62.4946
Maximum	**0.0826**	**0.5717**	**0.4523**	**6.9000e-004**	**2.2700e-003**	**0.0351**	**0.0374**	**7.7000e-004**	**0.0325**	**0.0332**	**0.0000**	**62.0373**	**62.0373**	**0.0183**	**0.0000**	**62.4946**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)

1	**2-1-2019**	**4-30-2019**	0.3350	0.3350
2	**5-1-2019**	**7-31-2019**	0.3222	0.3222
		Highest	0.3350	0.3350

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	0.0288	4.3000e-004	0.0320	4.0000e-005		2.5500e-003	2.5500e-003		2.5500e-003	2.5500e-003	0.2542	0.0867	0.3409	5.0000e-004	1.0000e-005	0.3578
Energy	3.1000e-004	2.6800e-003	1.1400e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	5.2305	5.2305	2.7000e-004	1.0000e-004	5.2674
Mobile	4.7200e-003	0.0197	0.0551	1.8000e-004	0.0162	1.6000e-004	0.0164	4.3400e-003	1.5000e-004	4.4900e-003	0.0000	16.5868	16.5868	5.8000e-004	0.0000	16.6013
Waste						0.0000	0.0000		0.0000	0.0000	0.5115	0.0000	0.5115	0.0302	0.0000	1.2673
Water						0.0000	0.0000		0.0000	0.0000	0.0413	0.1306	0.1719	4.2600e-003	1.0000e-004	0.3091
Total	**0.0339**	**0.0228**	**0.0883**	**2.4000e-004**	**0.0162**	**2.9300e-003**	**0.0191**	**4.3400e-003**	**2.9200e-003**	**7.2600e-003**	**0.8071**	**22.0346**	**22.8417**	**0.0358**	**2.1000e-004**	**23.8029**

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	0.0288	4.3000e-004	0.0320	4.0000e-005		2.5500e-003	2.5500e-003		2.5500e-003	2.5500e-003	0.2542	0.0867	0.3409	5.0000e-004	1.0000e-005	0.3578
Energy	3.1000e-004	2.6800e-003	1.1400e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	5.2305	5.2305	2.7000e-004	1.0000e-004	5.2674
Mobile	4.7200e-003	0.0197	0.0551	1.8000e-004	0.0162	1.6000e-004	0.0164	4.3400e-003	1.5000e-004	4.4900e-003	0.0000	16.5868	16.5868	5.8000e-004	0.0000	16.6013
Waste						0.0000	0.0000		0.0000	0.0000	0.5115	0.0000	0.5115	0.0302	0.0000	1.2673

Water						0.0000	0.0000		0.0000	0.0000	0.0413	0.1306	0.1719	4.2600e-003	1.0000e-004	0.3091
Total	**0.0339**	**0.0228**	**0.0883**	**2.4000e-004**	**0.0162**	**2.9300e-003**	**0.0191**	**4.3400e-003**	**2.9200e-003**	**7.2600e-003**	**0.8071**	**22.0346**	**22.8417**	**0.0358**	**2.1000e-004**	**23.8029**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/1/2019	2/14/2019	5	10	
2	Site Preparation	Site Preparation	2/15/2019	2/15/2019	5	1	
3	Grading	Grading	2/16/2019	2/19/2019	5	2	
4	Building Construction	Building Construction	2/20/2019	7/9/2019	5	100	
5	Paving	Paving	7/10/2019	7/16/2019	5	5	
6	Architectural Coating	Architectural Coating	7/17/2019	7/23/2019	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 7,290; Residential Outdoor: 2,430; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20

Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	1.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	4.7700e-003	0.0430	0.0385	6.0000e-005		2.6900e-003	2.6900e-003		2.5600e-003	2.5600e-003	0.0000	5.2601	5.2601	1.0000e-003	0.0000	5.2852

Total	**4.7700e-003**	**0.0430**	**0.0385**	**6.0000e-005**		**2.6900e-003**	**2.6900e-003**		**2.5600e-003**	**2.5600e-003**	**0.0000**	**5.2601**	**5.2601**	**1.0000e-003**	**0.0000**	**5.2852**

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	1.8000e-004	1.4000e-004	1.4000e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3510	0.3510	1.0000e-005	0.0000	0.3513
Total	**1.8000e-004**	**1.4000e-004**	**1.4000e-003**	**0.0000**	**4.0000e-004**	**0.0000**	**4.0000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3510**	**0.3510**	**1.0000e-005**	**0.0000**	**0.3513**

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	4.7700e-003	0.0430	0.0385	6.0000e-005		2.6900e-003	2.6900e-003		2.5600e-003	2.5600e-003	0.0000	5.2601	5.2601	1.0000e-003	0.0000	5.2852
Total	**4.7700e-003**	**0.0430**	**0.0385**	**6.0000e-005**		**2.6900e-003**	**2.6900e-003**		**2.5600e-003**	**2.5600e-003**	**0.0000**	**5.2601**	**5.2601**	**1.0000e-003**	**0.0000**	**5.2852**

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	1.8000e-004	1.4000e-004	1.4000e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3510	0.3510	1.0000e-005	0.0000	0.3513
Total	**1.8000e-004**	**1.4000e-004**	**1.4000e-003**	**0.0000**	**4.0000e-004**	**0.0000**	**4.0000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3510**	**0.3510**	**1.0000e-005**	**0.0000**	**0.3513**

3.3 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					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6000e-004	4.4600e-003	2.0700e-003	0.0000		1.8000e-004	1.8000e-004		1.7000e-004	1.7000e-004	0.0000	0.4378	0.4378	1.4000e-004	0.0000	0.4413
Total	**3.6000e-004**	**4.4600e-003**	**2.0700e-003**	**0.0000**	**2.7000e-004**	**1.8000e-004**	**4.5000e-004**	**3.0000e-005**	**1.7000e-004**	**2.0000e-004**	**0.0000**	**0.4378**	**0.4378**	**1.4000e-004**	**0.0000**	**0.4413**

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-005	1.0000e-005	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0176	0.0176	0.0000	0.0000	0.0176
Total	**1.0000e-005**	**1.0000e-005**	**7.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0176**	**0.0176**	**0.0000**	**0.0000**	**0.0176**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6000e-004	4.4600e-003	2.0700e-003	0.0000		1.8000e-004	1.8000e-004		1.7000e-004	1.7000e-004	0.0000	0.4378	0.4378	1.4000e-004	0.0000	0.4413
Total	**3.6000e-004**	**4.4600e-003**	**2.0700e-003**	**0.0000**	**2.7000e-004**	**1.8000e-004**	**4.5000e-004**	**3.0000e-005**	**1.7000e-004**	**2.0000e-004**	**0.0000**	**0.4378**	**0.4378**	**1.4000e-004**	**0.0000**	**0.4413**

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-005	1.0000e-005	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0176	0.0176	0.0000	0.0000	0.0176
Total	**1.0000e-005**	**1.0000e-005**	**7.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0176**	**0.0176**	**0.0000**	**0.0000**	**0.0176**

3.4 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					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.5000e-004	8.6000e-003	7.6900e-003	1.0000e-005		5.4000e-004	5.4000e-004		5.1000e-004	5.1000e-004	0.0000	1.0520	1.0520	2.0000e-004	0.0000	1.0570
Total	**9.5000e-004**	**8.6000e-003**	**7.6900e-003**	**1.0000e-005**	**7.5000e-004**	**5.4000e-004**	**1.2900e-003**	**4.1000e-004**	**5.1000e-004**	**9.2000e-004**	**0.0000**	**1.0520**	**1.0520**	**2.0000e-004**	**0.0000**	**1.0570**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	3.0000e-005	2.8000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0702	0.0702	0.0000	0.0000	0.0703
Total	**4.0000e-005**	**3.0000e-005**	**2.8000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0702**	**0.0702**	**0.0000**	**0.0000**	**0.0703**

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					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	9.5000e-004	8.6000e-003	7.6900e-003	1.0000e-005		5.4000e-004	5.4000e-004		5.1000e-004	5.1000e-004	0.0000	1.0520	1.0520	2.0000e-004	0.0000	1.0570
Total	**9.5000e-004**	**8.6000e-003**	**7.6900e-003**	**1.0000e-005**	**7.5000e-004**	**5.4000e-004**	**1.2900e-003**	**4.1000e-004**	**5.1000e-004**	**9.2000e-004**	**0.0000**	**1.0520**	**1.0520**	**2.0000e-004**	**0.0000**	**1.0570**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	3.0000e-005	2.8000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0702	0.0702	0.0000	0.0000	0.0703
Total	**4.0000e-005**	**3.0000e-005**	**2.8000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0702**	**0.0702**	**0.0000**	**0.0000**	**0.0703**

3.5 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	0.0479	0.4910	0.3772	5.7000e-004		0.0303	0.0303		0.0279	0.0279	0.0000	51.1502	51.1502	0.0162	0.0000	51.5548
Total	**0.0479**	**0.4910**	**0.3772**	**5.7000e-004**		**0.0303**	**0.0303**		**0.0279**	**0.0279**	**0.0000**	**51.1502**	**51.1502**	**0.0162**	**0.0000**	**51.5548**

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	1.8000e-004	1.4000e-004	1.4000e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3510	0.3510	1.0000e-005	0.0000	0.3513
Total	**1.8000e-004**	**1.4000e-004**	**1.4000e-003**	**0.0000**	**4.0000e-004**	**0.0000**	**4.0000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3510**	**0.3510**	**1.0000e-005**	**0.0000**	**0.3513**

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	0.0479	0.4910	0.3772	5.7000e-004		0.0303	0.0303		0.0279	0.0279	0.0000	51.1502	51.1502	0.0162	0.0000	51.5548
Total	**0.0479**	**0.4910**	**0.3772**	**5.7000e-004**		**0.0303**	**0.0303**		**0.0279**	**0.0279**	**0.0000**	**51.1502**	**51.1502**	**0.0162**	**0.0000**	**51.5548**

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	1.8000e-004	1.4000e-004	1.4000e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3510	0.3510	1.0000e-005	0.0000	0.3513
Total	**1.8000e-004**	**1.4000e-004**	**1.4000e-003**	**0.0000**	**4.0000e-004**	**0.0000**	**4.0000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3510**	**0.3510**	**1.0000e-005**	**0.0000**	**0.3513**

3.6 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	2.0700e-003	0.0196	0.0179	3.0000e-005		1.1100e-003	1.1100e-003		1.0300e-003	1.0300e-003	0.0000	2.3931	2.3931	6.8000e-004	0.0000	2.4102
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.0700e-003**	**0.0196**	**0.0179**	**3.0000e-005**		**1.1100e-003**	**1.1100e-003**		**1.0300e-003**	**1.0300e-003**	**0.0000**	**2.3931**	**2.3931**	**6.8000e-004**	**0.0000**	**2.4102**

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	1.6000e-004	1.2000e-004	1.2600e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3159	0.3159	1.0000e-005	0.0000	0.3162
Total	**1.6000e-004**	**1.2000e-004**	**1.2600e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**9.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3159**	**0.3159**	**1.0000e-005**	**0.0000**	**0.3162**

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	2.0700e-003	0.0196	0.0179	3.0000e-005		1.1100e-003	1.1100e-003		1.0300e-003	1.0300e-003	0.0000	2.3931	2.3931	6.8000e-004	0.0000	2.4102
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.0700e-003**	**0.0196**	**0.0179**	**3.0000e-005**		**1.1100e-003**	**1.1100e-003**		**1.0300e-003**	**1.0300e-003**	**0.0000**	**2.3931**	**2.3931**	**6.8000e-004**	**0.0000**	**2.4102**

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	1.6000e-004	1.2000e-004	1.2600e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3159	0.3159	1.0000e-005	0.0000	0.3162
Total	**1.6000e-004**	**1.2000e-004**	**1.2600e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**9.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3159**	**0.3159**	**1.0000e-005**	**0.0000**	**0.3162**

3.7 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	0.0253					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	6.7000e-004	4.5900e-003	4.6000e-003	1.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	0.6383	0.6383	5.0000e-005	0.0000	0.6397
Total	**0.0260**	**4.5900e-003**	**4.6000e-003**	**1.0000e-005**		**3.2000e-004**	**3.2000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.6383**	**0.6383**	**5.0000e-005**	**0.0000**	**0.6397**

Unmitigated Construction Off-Site

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

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	0.0253					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.7000e-004	4.5900e-003	4.6000e-003	1.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	0.6383	0.6383	5.0000e-005	0.0000	0.6397
Total	**0.0260**	**4.5900e-003**	**4.6000e-003**	**1.0000e-005**		**3.2000e-004**	**3.2000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.6383**	**0.6383**	**5.0000e-005**	**0.0000**	**0.6397**

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.7200e-003	0.0197	0.0551	1.8000e-004	0.0162	1.6000e-004	0.0164	4.3400e-003	1.5000e-004	4.4900e-003	0.0000	16.5868	16.5868	5.8000e-004	0.0000	16.6013
Unmitigated	4.7200e-003	0.0197	0.0551	1.8000e-004	0.0162	1.6000e-004	0.0164	4.3400e-003	1.5000e-004	4.4900e-003	0.0000	16.5868	16.5868	5.8000e-004	0.0000	16.6013

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	18.88	18.88	18.88	43,605	43,605
Total	18.88	18.88	18.88	43,605	43,605

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.607897	0.037434	0.184004	0.107261	0.014919	0.004991	0.012447	0.020659	0.002115	0.001554	0.005334	0.000623	0.000761

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	2.1285	2.1285	2.1000e-004	4.0000e-005	2.1469
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2.1285	2.1285	2.1000e-004	4.0000e-005	2.1469
NaturalGas Mitigated	3.1000e-004	2.6800e-003	1.1400e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1021	3.1021	6.0000e-005	6.0000e-005	3.1205
NaturalGas Unmitigated	3.1000e-004	2.6800e-003	1.1400e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1021	3.1021	6.0000e-005	6.0000e-005	3.1205

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	58130.2	3.1000e-004	2.6800e-003	1.1400e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1021	3.1021	6.0000e-005	6.0000e-005	3.1205
Total		**3.1000e-004**	**2.6800e-003**	**1.1400e-003**	**2.0000e-005**		**2.2000e-004**	**2.2000e-004**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**3.1021**	**3.1021**	**6.0000e-005**	**6.0000e-005**	**3.1205**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	58130.2	3.1000e-004	2.6800e-003	1.1400e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1021	3.1021	6.0000e-005	6.0000e-005	3.1205
Total		**3.1000e-004**	**2.6800e-003**	**1.1400e-003**	**2.0000e-005**		**2.2000e-004**	**2.2000e-004**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**3.1021**	**3.1021**	**6.0000e-005**	**6.0000e-005**	**3.1205**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	16181.1	2.1285	2.1000e-004	4.0000e-005	2.1469
Total		**2.1285**	**2.1000e-004**	**4.0000e-005**	**2.1469**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	16181.1	2.1285	2.1000e-004	4.0000e-005	2.1469
Total		**2.1285**	**2.1000e-004**	**4.0000e-005**	**2.1469**

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	0.0288	4.3000e-004	0.0320	4.0000e-005		2.5500e-003	2.5500e-003		2.5500e-003	2.5500e-003	0.2542	0.0867	0.3409	5.0000e-004	1.0000e-005	0.3578
Unmitigated	0.0288	4.3000e-004	0.0320	4.0000e-005		2.5500e-003	2.5500e-003		2.5500e-003	2.5500e-003	0.2542	0.0867	0.3409	5.0000e-004	1.0000e-005	0.3578

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	2.5300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0141					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0118	2.6000e-004	0.0171	4.0000e-005		2.4700e-003	2.4700e-003		2.4700e-003	2.4700e-003	0.2542	0.0624	0.3166	4.8000e-004	1.0000e-005	0.3330
Landscaping	4.5000e-004	1.7000e-004	0.0149	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0243	0.0243	2.0000e-005	0.0000	0.0249
Total	**0.0288**	**4.3000e-004**	**0.0320**	**4.0000e-005**		**2.5500e-003**	**2.5500e-003**		**2.5500e-003**	**2.5500e-003**	**0.2542**	**0.0867**	**0.3409**	**5.0000e-004**	**1.0000e-005**	**0.3578**

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	2.5300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0141					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0118	2.6000e-004	0.0171	4.0000e-005		2.4700e-003	2.4700e-003		2.4700e-003	2.4700e-003	0.2542	0.0624	0.3166	4.8000e-004	1.0000e-005	0.3330
Landscaping	4.5000e-004	1.7000e-004	0.0149	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0243	0.0243	2.0000e-005	0.0000	0.0249
Total	**0.0288**	**4.3000e-004**	**0.0320**	**4.0000e-005**		**2.5500e-003**	**2.5500e-003**		**2.5500e-003**	**2.5500e-003**	**0.2542**	**0.0867**	**0.3409**	**5.0000e-004**	**1.0000e-005**	**0.3578**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.1719	4.2600e-003	1.0000e-004	0.3091
Unmitigated	0.1719	4.2600e-003	1.0000e-004	0.3091

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.130308 / 0.0821507	0.1719	4.2600e-003	1.0000e-004	0.3091
Total		**0.1719**	**4.2600e-003**	**1.0000e-004**	**0.3091**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.130308 / 0.0821507	0.1719	4.2600e-003	1.0000e-004	0.3091
Total		**0.1719**	**4.2600e-003**	**1.0000e-004**	**0.3091**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.5115	0.0302	0.0000	1.2673
Unmitigated	0.5115	0.0302	0.0000	1.2673

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	2.52	0.5115	0.0302	0.0000	1.2673
Total		**0.5115**	**0.0302**	**0.0000**	**1.2673**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	2.52	0.5115	0.0302	0.0000	1.2673
Total		**0.5115**	**0.0302**	**0.0000**	**1.2673**

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