RACE STREET PROJECT AIR QUALITY ASSESSMENT

San Jose, California

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Introduction

The purpose of this report is to address air quality impacts associated with the proposed mixed-use residential development project proposed north of West San Carlos Street, between Race Street and Grand Avenue in San José, California. 206 apartment units are proposed. As an alternative, 8,500 square feet (sf) of ground-floor retail is considered in addition to the proposed apartments. Currently, the 2.3-acre site is developed with commercial buildings and single-family residences. As part of the proposed project, these existing structures would be demolished.

Air pollutant emissions associated with construction and operation of the project were modeled. In addition, the potential construction health risk impacts to nearby sensitive receptors were evaluated along with the community risk impacts of existing toxic air contaminant (TAC) sources upon future project residences. This analysis addresses those issues following the guidance provided by the Bay Area Air Quality Management District (BAAQMD).

Setting

The project is located in the 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 ($PM_{2.5}$).

Air Pollutants of Concern

High ozone levels are caused by the cumulative emissions of reactive organic gases (ROG) and nitrogen oxides (NO_X). These precursor pollutants react under certain meteorological conditions to form high ozone levels. Controlling the emissions of these precursor pollutants is the focus of the Bay Area's attempts to reduce ozone levels. The highest ozone levels in the Bay Area occur in the eastern and southern inland valleys that are downwind of air pollutant sources. High ozone levels aggravate respiratory and cardiovascular diseases, reduced lung function, and increase coughing and chest discomfort.

Particulate matter is another problematic air pollutant of the Bay Area. Particulate matter is assessed and measured in terms of respirable particulate matter or particles that have a diameter of 10 micrometers or less (PM_{10}) and fine particulate matter where particles have a diameter of 2.5 micrometers or less ($PM_{2.5}$). Elevated concentrations of PM_{10} and $PM_{2.5}$ are the result of both region-wide (or cumulative) emissions and localized emissions. High particulate matter levels aggravate respiratory and cardiovascular diseases, reduce lung function, increase mortality (e.g., lung cancer), and result in reduced lung function growth in children.

Toxic Air Contaminants

TACs 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. The most recent Office of Environmental Health Hazard Assessment (OEHHA) risk assessment guidelines were published in February of 2015.[1] See *Attachment 1* for a detailed description of the community risk modeling methodology used in this assessment.

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. For cancer risk assessments, children are the most sensitive receptors, since they are more susceptible to cancer causing TACs. Residential locations are assumed to include infants and small children. The closest sensitive receptors are residences north of the project site. Additional receptors (residences) are located further from the site to the east, west, north, and south.

Regulatory Setting

Federal Regulations

The United States Environmental Protection Agency (EPA) sets nationwide emission standards for mobile sources, which include on-road (highway) motor vehicles such trucks, buses, and automobiles, and non-road (off-road) vehicles and equipment used in construction, agricultural, industrial, and mining activities (such as bulldozers and loaders). The EPA also sets nationwide fuel standards. California also has the ability to set motor vehicle emission standards and standards for fuel used in California, as long as they are the same or more stringent than the federal standards.

In the past decade the EPA has established a number of emission standards for on- and non-road heavy-duty diesel engines used in trucks and other equipment. This was done in part because diesel engines are a significant source of NO_X and particulate matter (PM_{10} and $PM_{2.5}$) and because the EPA has identified DPM as a probable carcinogen. Implementation of the heavy-duty diesel on-road vehicle standards and the non-road diesel engine standards are estimated to reduce particulate matter and NO_X emissions from diesel engines up to 95 percent in 2030 when

[1] 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.

the heavy-duty vehicle fleet is completely replaced with newer heavy-duty vehicles that comply with these emission standards.[2]

In concert with the diesel engine emission standards, the EPA has also substantially reduced the amount of sulfur allowed in diesel fuels. The sulfur contained in diesel fuel is a significant contributor to the formation of particulate matter in diesel-fueled engine exhaust. The new standards reduced the amount of sulfur allowed by 97 percent for highway diesel fuel (from 500 parts per million by weight [ppmw] to 15 ppmw), and by 99 percent for off-highway diesel fuel (from about 3,000 ppmw to 15 ppmw). The low sulfur highway fuel (15 ppmw sulfur), also called ultra-low sulfur diesel (ULSD), is currently required for use by all vehicles in the U.S.

All of the above federal diesel engine and diesel fuel requirements have been adopted by California, in some cases with modifications making the requirements more stringent or the implementation dates sooner.

Federal General Conformity Rule for the Federal Clean Air Act (CAA)

Federal funding is anticipated on this project and, therefore, subject to federal environmental regulations, including the General Conformity Rule for the CAA. As part of the SIP, California has incorporated the federal General Conformity Rule. The EPA's Conformity Rule, as promulgated in 40 CFR Part 93 Subpart B, and 40 CFR Part 51, Subpart W, implements the conformity requirements of Section 176(c) of the 1990 Amendments to the Federal CAA. Conformity to the SIP is defined in the CAA as requiring all federal agencies to ensure that any agency activity conforms to an approved SIP in nonattainment or maintenance areas. Compliance with the SIP assists in eliminating or reducing the number of violations of the national ambient air quality standards, which expedites attainment of the standards. The General Conformity Rule requires that the total of direct and indirect emissions of nonattainment or maintenance area criteria pollutants, including ozone precursors (reactive organic gases and nitrogen oxides) and $PM_{2.5}$ precursors (sulfur dioxide, nitrogen dioxide, and reactive organic compounds or ammonia) be considered in determining conformity.

The General Conformity determination can take one of three forms:

(1) If the action meets certain criteria, it may be specifically exempted, regardless of whether the action would emit pollutants of concern;

(2) if the action is determined to emit pollutants below specified *de minimis* thresholds and the potential emission levels are not regionally significant (less than 10 percent of the region's emissions for a particular pollutant), the action can be assumed to conform with the SIP; and

(3) for actions that do not fall under either of these two categories, a complete conformity determination must be made. Specifics of this process are listed in 40 CFR 93, Subpart B.

The General Conformity analysis applies only to projects in a federal nonattainment area or an attainment area subject to a maintenance plan and applies to those pollutants that the area has

[2] USEPA, 2000. *Regulatory Announcement, Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements*. EPA420-F-00-057. December.

been designated as nonattainment or maintenance. As described above, the Bay Area has been designated nonattainment for ozone and $PM_{2.5}$.

State Regulations

To address the issue of diesel emissions in the state, CARB developed the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles.[3] In addition to requiring more stringent emission standards for new on-road and off-road mobile sources and stationary diesel-fueled engines to reduce particulate matter emissions by 90 percent, a significant component of the plan involves application of emission control strategies to existing diesel vehicles and equipment. Many of the measures of the Diesel Risk Reduction Plan have been approved and adopted, including the federal on-road and non-road diesel engine emission standards for new engines, as well as adoption of regulations for low sulfur fuel in California.

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. CARB regulations require on-road diesel trucks to be retrofitted with particulate matter controls or replaced to meet 2010 or later engine standards that have much lower DPM and $PM_{2.5}$ emissions. This regulation will substantially reduce these emissions between 2013 and 2023. While new trucks and buses will meet strict federal standards, this measure is intended to accelerate the rate at which the fleet either turns over so there are more cleaner vehicles on the road, or is retrofitted to meet similar standards. With this regulation, older, more polluting trucks would be removed from the roads sooner.

CARB has also adopted and implemented regulations to reduce DPM and NO_X emissions from in-use (existing) and new off-road heavy-duty diesel vehicles (e.g., loaders, tractors, bulldozers, backhoes, off-highway trucks, etc.). The regulations apply to diesel-powered off-road vehicles with engines 25 horsepower (hp) or greater. The regulations are intended to reduce particulate matter and NO_X exhaust emissions by requiring owners to turn over their fleet (replace older equipment with newer equipment) or retrofit existing equipment in order to achieve specified fleet-averaged emission rates. Implementation of this regulation, in conjunction with stringent federal off-road equipment engine emission limits for new vehicles, will significantly reduce emissions of DPM and NO_X.

Bay Area Air Quality Management District (BAAQMD)

BAAQMD has jurisdiction over an approximately 5,600-square mile area, commonly referred to as the San Francisco Bay Area (Bay Area). The District's boundary encompasses the nine San Francisco Bay Area counties, including Alameda County, Contra Costa County, Marin County, San Francisco County, San Mateo County, Santa Clara County, Napa County, southwestern Solano County, and southern Sonoma County.

[3] California Air Resources Board, 2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*. October.

BAAQMD is the lead agency in developing plans to address attainment and maintenance of the National Ambient Air Quality Standards and California Ambient Air Quality Standards. The District also has permit authority over most types of stationary equipment utilized for the proposed project. The BAAQMD is responsible for permitting and inspection of stationary sources; enforcement of regulations, including setting fees, levying fines, and enforcement actions; and ensuring that public nuisances are minimized.

The BAAQMD California Environmental Quality Act (*CEQA) Air Quality Guidelines*[4] were prepared to assist in the evaluation of air quality impacts of projects and plans proposed within the Bay Area. The guidelines provide recommended procedures for evaluating potential air impacts during the environmental review process consistent with CEQA requirements including thresholds of significance, mitigation measures, and background air quality information. They also include assessment methodologies for air toxics, odors, and greenhouse gas emissions.

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. The significance thresholds identified by BAAQMD and used in this analysis are summarized in Table 1. The BAAQMD's adoption of significance thresholds contained in the 2011 *CEQA Air Quality Guidelines* was called into question by an order issued March 5, 2012, in California Building Industry Association (CBIA) v. BAAQMD (Alameda Superior Court Case No. RGI0548693). In December 2015, the Supreme Court determined that an analysis of the impacts of the environment on a project – known as "CEQA-in-reverse" – is only required under two limited circumstances: (1) when a statute provides an express legislative directive to consider such impacts; and (2) when a proposed project risks exacerbating environmental hazards or conditions that already exist (Cal. Supreme Court Case No. S213478). Because the Supreme Court's holding concerns the effects of the environment on a project (as contrasted to the effects of a proposed project on the environment), and not the science behind the thresholds, the significance thresholds contained in the 2011 CEQA Air Quality Guidelines (and in the updated 2017 Guidelines) are applied to this project. Though not necessarily a CEQA issue, the effect of existing TAC sources on future project receptors (residences) is analyzed to comply with the Clean Air Plan key goal of reducing population TAC exposure and protecting public health in the Bay Area.

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

Table 1. Air Quality Significance Thresholds

Criteria Air Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (lbs./day)	Average Daily Emissions (lbs./day)	Annual Average Emissions (tons/year)
ROG	54	54	10
NO_x	54	54	10
PM_{10}	82 (Exhaust)	82	15
$PM_{2.5}$	54 (Exhaust)	54	10
CO	Not Applicable	9.0 ppm (8-hour average) or 20.0 ppm (1-hour average)	
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices	Not Applicable	
Health Risks and Hazards	**Single Sources Within 1,000-foot Zone of Influence**	**Combined Sources (Cumulative from all sources within 1,000 foot zone of influence)**	
Excess Cancer Risk	>10 per one million	>100 per one million	
Hazard Index	>1.0	>10.0	
Incremental annual $PM_{2.5}$	>0.3 µg/m^3	>0.8 µg/m^3	

Note: ROG = reactive organic gases, NOx = nitrogen oxides, PM_{10} = course particulate matter or particulates with an aerodynamic diameter of 10 micrometers (µm) or less, $PM_{2.5}$ = fine particulate matter or particulates with an aerodynamic diameter of 2.5µm or less; and GHG = greenhouse gas.

Impacts and Mitigation Measures

Impact 1: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable State or federal ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

The Bay Area is considered a non-attainment area for ground-level ozone and $PM_{2.5}$ under both the Federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for PM_{10} under the California Clean Air Act, but not the federal act. The area has attained both State and federal ambient air quality standards for carbon monoxide. As part of an effort to attain and maintain ambient air quality standards for ozone and PM_{10}, the BAAQMD has established thresholds of significance for these air pollutants and their precursors. These thresholds are for ozone precursor pollutants (ROG and NO_X), PM_{10}, and $PM_{2.5}$ and apply to both construction period and operational period impacts.

The California Emissions Estimator Model (CalEEMod) Version 2016.3.1 was used to estimate emissions from construction and operation of the site assuming full build-out of the project. The project land use types and size, and anticipated construction schedule were input to CalEEMod. CalEEMod provides annual 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. A construction build-out scenario,

including equipment list and schedule, was developed based on information provided by the project applicant and CalEEMod defaults for a project of this type and size. The proposed project land uses were input into CalEEMod, which included 206 dwelling units entered as "Apartments-Mid Rise," 8,500 sf entered as "Strip Mall"/retail, 10 spaces entered as "Parking Lot," and 262 spaces entered as "Enclosed Parking with Elevator" on 2.3 acres. In addition, 800 cubic yards (cy) of soil export is anticipated during the grading and excavation phase and was entered into the model. 51,075 sf of building demolition and 1,600 tons of pavement demolition is expected. During the paving phase, 100 cy of asphalt is estimated. The model assumes 16cy/truck and 20 tons/truck. Electric cranes and temporary line power is anticipated at the site. The project would be built out over a period of approximately 23 months beginning in March 2019, or an approximate 506 construction workdays (assuming 22 workdays per month).

Average daily emissions were computed for each phase by dividing the total construction emissions by the number of construction days. Table 2 shows average daily construction emissions of ROG, NO_X, PM_{10} exhaust, and $PM_{2.5}$ exhaust during construction of the project. As indicated in Table 2, estimated the construction period emissions would not exceed the BAAQMD significance thresholds. In turn, the alternative which would include 206 apartments and no retail would have lower average daily emissions and would also be less-than-significant with respect to construction criteria pollutant emissions. *Attachment 2* includes the CalEEMod input and output worksheets.

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 implemented to reduce these emissions. *Mitigation Measure AQ-1 would implement BAAQMD-recommended best management practices*.

Table 2. Construction Period Emissions

Scenario	ROG	NOx	PM_{10} Exhaust	$PM_{2.5}$ Exhaust
2019	0.66	0.62	0.02	0.02
2020	1.01	0.61	0.02	0.02
2021	0.04	0.04	<0.01	<0.01
Total construction emissions (tons)	1.71 tons	1.27 tons	0.04 tons	0.04 tons
Average daily emissions (pounds)[1]	**6.8 lbs./day**	**5.0 lbs./day**	**0.2 lbs./day**	**0.2 lbs./day**
BAAQMD Thresholds (pounds per day)	*54* lbs./day	*54* lbs./day	*82* lbs./day	*54* lbs./day
Exceed Threshold?	**No**	**No**	**No**	**No**
Notes: [1]Assumes 506 workdays.				

Operational Period Emissions

Operational air emissions from the project would be generated primarily from autos driven by future residents, employees and customers. Evaporative emissions from architectural coatings and maintenance products (classified as consumer products) are typical emissions from these types of uses. CalEEMod was used to estimate emissions from operation of the proposed project assuming full build-out.

Land Uses

The project land uses were input to CalEEMod, as described above.

Model Year

Emissions associated with vehicle travel depend on the year of analysis because emission control technology requirements are phased-in over time. Therefore, the earlier the year analyzed in the model, the higher the emission rates utilized by CalEEMod. The earliest the project could possibly be constructed and begin operating would be 2022. Emissions associated with build-out later than 2022 would be lower.

Trip Generation Rates

The daily trip generation rates for the project land uses in the project traffic report were entered into the model, which included the specified trip reductions for internal capture and retail pass-by. The CalEEMod default trip lengths and trip types specified by CalEEMod were used.

Energy

CalEEMod defaults for energy use were used, which include 2013 Title 24 Building Standards.

Other Inputs

Wood-burning stoves and fireplaces are not allowed in new development in the Bay Area, however it was assumed that residential units could contain gas-powered fireplaces. Default model assumptions for emissions associated with solid waste generation and water/wastewater use were applied to the project.

Table 3. Operational Emissions

Scenario	ROG	NOx	PM_{10}	$PM_{2.5}$
2022 Project	1.34 tons	1.34 tons	1.07 tons	0.31 tons
BAAQMD Thresholds (tons /year)	*10 tons*	*10 tons*	*15 tons*	*10 tons*
Exceed Threshold?	**No**	**No**	**No**	**No**
Project Operational Emissions (*pounds/day*)	7.3 lbs.	7.3 lbs.	5.9 lbs.	1.7 lbs.
BAAQMD Thresholds (pounds/day)	*54* lbs.	*54* lbs.	*82* lbs.	*54* lbs.
Exceed Threshold?	**No**	**No**	**No**	**No**

[1] Assumes 365-day operation.

As shown in Table 3, operational emissions would not exceed the BAAQMD significance thresholds. It should be noted that net emissions would be even lower than those shown in Table 3 due to emissions from existing sources (single-family homes, a foster care facility, barber shop, and warehouse. This would be considered a *less-than-significant* impact. In turn, the alternative which would include 206 apartments and no retail would have lower operational emissions and would also be less-than-significant with respect to operational criteria pollutant emissions.

Federal Air Conformity Analysis

General Conformity Applicability

Under EPA's General Conformity rule, construction emissions are included when comparing a project's emissions to the conformity *de minimis* emission thresholds. Emissions for the Project would be considered significant and require a formal conformity determination if annual emissions exceed the EPA's General Conformity thresholds (40 CFR Part 93 Subpart B, Section 93.153). The conformity *de minimis* thresholds that are applicable to the Bay Area are emissions of 100 tons per year for NOx, ROG, CO, $PM_{2.5}$, and SO_2. As shown in Tables 2 and 3, both emissions from construction and operation of the proposed project would be well below the federal *de minimis* thresholds and would, therefore, have a less than significant effect.

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:

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

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

3. 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.

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

5. 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.

6. 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.

7. 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.

8. 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.

Impact 2: Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

As discussed under Impact 1, the project would have emissions less than the BAAQMD thresholds for evaluating regional impacts related to ozone and particulate matter. Therefore, the project would not contribute substantially to existing or projected violations of those standards. Carbon monoxide emissions from traffic generated by the project would be the pollutant of greatest concern at the local level. Congested intersections with a large volume of traffic have the greatest potential to cause high-localized concentrations of carbon monoxide. Air pollutant monitoring data indicate that carbon monoxide levels have been at healthy levels (i.e., below State and federal standards) in the Bay Area since the early 1990s. As a result, the region has been designated as attainment for the standard. The highest measured level over any 8-hour averaging period during the last 3 years in the Bay Area is less than 3.0 parts per million (ppm), compared to the ambient air quality standard of 9.0 ppm. Intersections affected by the project would have traffic volumes less than the BAAQMD screening criteria and, thus, would not cause a violation of an ambient air quality standard or have a considerable contribution to cumulative violations of these standards.[5]

Impact 3: Expose sensitive receptors to substantial pollutant concentrations?

Project impacts related to increased community risk can occur either by introducing a new sensitive receptor, such as a residential use, in proximity to an existing source of TACs or by introducing a new source of TACs with the potential to adversely affect existing sensitive receptors in the project vicinity. The project would introduce new sensitive receptors (residences) in the proximity of nearby TAC sources, such as local roadway traffic. There are no nearby stationary sources (e.g., gas stations, emergency back-up generators) within 1,000 feet with substantial risk, according to BAAQMD screening tools. Though not necessarily a CEQA issue, the effect of existing TAC sources on future project receptors (residences) is analyzed to comply with the Clean Air Plan goal of reducing TAC exposure and protecting public health in the Bay Area. Project operation would not be a substantial source of localized TACs, as no generators have been identified as part of the project. However, temporary project construction activity would generate dust and equipment exhaust on a temporary basis that could affect nearby sensitive receptors.

Operational Community Risk Impacts

Community health risk assessments typically look at all substantial sources of TACs that can affect sensitive receptors located within 1,000 feet of a project site. These sources include freeways or highways, busy surface streets, and stationary sources identified by BAAQMD. Traffic on high volume roadways is a source of TAC emissions that may adversely affect

[5] For a land-use project type, the BAAQMD CEQA Air Quality Guidelines state that a proposed project would result in a less than significant impact to localized carbon monoxide concentrations if the project would not increase traffic at affected intersections with more than 44,000 vehicles per hour.

sensitive receptors in close proximity to the roadway. For local roadways, BAAQMD considers roadways with traffic volumes of over 10,000 vehicles per day to have a potentially significant impact on a proposed project. A review of the project area and the background plus project volumes from the traffic report did not reveal any nearby local roadways with over 10,000 vehicles per day. No stationary sources were identified within 1,000 feet using BAAQMD screening methods.

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 generates diesel exhaust, which is a known TAC. As discussed above, these exhaust air pollutant emissions would not be contribute substantially to existing or projected air quality violations. However, construction exhaust emissions may still pose community health risks for sensitive receptors such as nearby 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 community 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 $PM_{2.5}$.[6] Emissions and dispersion modeling was conducted to estimate the on-site DPM concentrations resulting from project construction at locations shown in Figure 1, so that lifetime cancer risks and non-cancer health effects could be evaluated.

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 used for construction of the project and for the exhaust emissions from on-road vehicles (haul trucks, vendor trucks, and worker vehicles) of 0.0357 tons (71 pounds) over the entire construction period. A trip length of one-half mile was used to represent vehicle travel while at or near the construction site. For modeling purposes, it was assumed that these emissions from on-road vehicles would occur at the construction site. Fugitive dust $PM_{2.5}$ emissions were also computed and included in this analysis. The model estimates emissions of 0.0258 tons (52 pounds) of fugitive $PM_{2.5}$ over the construction period. *Attachment 2* includes the CalEEMod input and output worksheets and risk modeling calculations.

Dispersion Modeling

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

The EPA AERMOD dispersion model was used to predict concentrations of DPM and $PM_{2.5}$ concentrations at existing sensitive receptors (residences) in the vicinity of the project construction area. The AERMOD dispersion model is a BAAQMD-recommended model for use in modeling analysis of these types of emission activities for CEQA projects.[7] The AERMOD modeling utilized two area sources to represent the on-site construction emissions, one for exhaust emissions and one for fugitive dust emissions. To represent the construction equipment exhaust emissions, an emission release height of 6 meters (19.7 feet) was used for the area source. The elevated source height reflects the height of the equipment exhaust pipes plus an additional distance for the height of the exhaust plume above the exhaust pipes to account for plume rise of the exhaust gases. For modeling fugitive $PM_{2.5}$ emissions, a near-ground level release height of 2 meters (6.6 feet) was used for the area source. Emissions from the construction equipment and on-road vehicle travel were distributed throughout the modeled area sources. Construction emissions were modeled as occurring daily between 7:00 a.m. to 4:00 p.m., when the majority of construction activity would occur. Figure 1 shows the project site and nearby sensitive receptor (residences) locations where health impacts were evaluated.

The modeling used a 5-year meteorological data set (2006 – 2010) from the Mineta San Jose International Airport meteorological station prepared for use with the AERMOD model by the BAAQMD. Annual DPM and $PM_{2.5}$ concentrations from construction activities during the 2019 – 2021 period were calculated using the model. DPM and $PM_{2.5}$ concentrations were calculated at the future sensitive receptors. Receptor height of 1.5 meters (4.9 feet) and 4.5 meters (14.7 feet) was used to represent the breathing height of nearby residences and apartments.

Cancer Risks

Results of this assessment indicate that the maximum excess residential cancer risks would be 15.8 in one million for an infant exposure and 0.3 in one million for an adult exposure. The maximally exposed individual (MEI) would be located at the first floor level of the receptor shown in Figure 1. The maximum residential excess cancer risk at the MEI would be greater than the BAAQMD significance threshold of 10 in one million for both alternatives with and without retail. *Implementation of Mitigation Measure AQ-2 would reduce this risk to below the BAAQMD threshold of significance.*

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 0.2 $\mu g/m^3$ and would occur at a residence adjacent to the southern project site boundary, and is shown in Figure 1. The maximum annual $PM_{2.5}$ concentration would not exceed the BAAQMD significance threshold of 0.3 $\mu g/m^3$.

Non-Cancer Hazards

The maximum computed HI based on DPM concentration would be 0.01, which is much lower than the BAAQMD significance threshold of 1.0

[7] Bay Area Air Quality Management District (BAAQMD), 2012, *Recommended Methods for Screening and Modeling Local Risks and Hazards, Version 3.0.* May.

Mitigation Measure AQ-2: **Use Construction equipment that has low diesel particulate matter exhaust emissions.**

The project shall develop a plan demonstrating that the off-road equipment used to on-site to construct the project would achieve a fleet-wide average of at least 37 percent reduction in PM_{10} emissions. One feasible plan to achieve this reduction would include the following:

- All mobile diesel-powered off-road equipment larger than 25 horsepower and operating on the site for more than two days continuously shall meet, at a minimum, U.S. EPA particulate matter emissions standards for Tier 2 engines or equivalent;

- All diesel-powered portable equipment (i.e., aerial lifts, air compressors, concrete and industrial saws, forklifts, and welders) operating on the site for more than two days shall meet U.S. EPA particulate matter emissions standards for Tier 4 engines or equivalent.

- Note that the construction contractors could use other measures to minimize construction period DPM emission to reduce the estimated cancer risk below the thresholds. The use of equipment that includes CARB-certified Level 3 Diesel Particulate Filters[1] or 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.

Effectiveness of Mitigation

Implementation of *Mitigation Measure AQ-1* is considered to reduce exhaust emissions by 5 percent and fugitive dust emissions by over 50 percent. Implementation of *Mitigation Measure AQ-2* would further reduce on-site diesel exhaust emissions. With mitigation, the computed maximum increased cancer risk for construction would be less than 5.2 in one million. The cancer risk would be below the BAAQMD threshold of greater than 10 per one million for cancer risk. Therefore, *after implementation of these recommended measures, the project would have a less-than-significant impact with respect to community risk caused by construction activities.*

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

Figure 1. Project Construction Site and Locations of Sensitive Receptors and Maximum Cancer Risk and $PM_{2.5}$ Impacts

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.[1] 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.[2] 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.[3] 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).

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,

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[1] 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.

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

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

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: Construction Schedule, CalEEMod Input and Output Worksheets, and Risk Calculations

Project Name:		Race Street Apartments					
	Project Size	**206**	**Dwelling Units**	**2.3**	**total project acres disturbed**		
		0	**s.f. residential**	**0**	**s.f. retail**		*"residenital" here includes the common amenity areas adjoining the g*
		0	**s.f. office/commercial**	**0**	**s.f. other**		
		0	**s.f. other, specify:**				
		100,550	**s.f. parking garage**	**262**	**spaces**		*this includes the garage at all levels for both buildings*
		16,602	**s.f. parking lot**	**10**	**spaces**		*the central drive plus parking area is the "parking lot" in this cas*
	Construction Hours		**am to**		**pm**		

Qty	Description	HP	Load Factor	Hours/day	Total Work Days	Avg. Hours per day	Comments
	Demolition	**Start Date:**	**3/11/2019**	**Total phase:**	**5**		**Overall Import/Export Volumes**
		End Date:	**3/17/2019**				
1	Concrete/Industrial Saws	81	0.73	8	1	1.6	**Demolition Volume**
1	Excavators	158	0.38	8	3	4.8	Square footage of buildings to be demolished
1	Rubber-Tired Dozers	247	0.4	8	3	4.8	(*or* total tons to be hauled)
1	Tractors/Loaders/Backhoes	97	0.37	8	4	6.4	**51,075** square feet *or*
							? Hauling volume (tons)
	Site Preperation	**Start Date:**	**3/18/2019**	**Total phase:**	**3**		Any pavement demolished and hauled? **1600 tons**
		End Date:	**3/20/2019**				**Soil Hauling Volume**
1	Rubber Tired Dozers	247	0.4	8	3	8.0	Export volume = **0** cubic yards?
1	Tractors/Loaders/Backhoes	97	0.37	8	3	8.0	Import volume = **0** cubic yards?
	Grading / Excavation	**Start Date:**	**3/21/2019**	**Total phase:**	**7**		
		End Date:	**3/29/2019**				**Soil Hauling Volume**
1	Rubber Tired Dozers	247	0.4	8	8	9.1	Export volume = **800** cubic yards?
1	Tractors/Loaders/Backhoes	97	0.37	8	8	9.1	Import volume = **0** cubic yards?
	Trenching	**Start Date:**	**4/1/2019**	**Total phase:**	**10**		
		End Date:	**4/12/2019**				
1	Tractor/Loader/Backhoe	97	0.37	4	11	4.4	
1	Excavators	162	0.38	8	11	8.8	
	Building - Exterior	**Start Date:**	**9/16/2019**	**Total phase:**	**205**		**Cement Trucks? ? Total Round-Trips**
		End Date:	**6/28/2020**				
1	Cranes	226	0.29	6	160	4.7	Electric? (Y/N) _Y__ Otherwise assumed diesel
1	Forklifts	89	0.2	4	160	3.1	Liquid Propane (LPG)? (Y/N) _N__ Otherwise Assumed diesel
1	Generator Sets	84	0.74	8	130	5.1	Or temporary line power? (Y/N) _Y__
1	Tractors/Loaders/Backhoes	97	0.37	7	30	1.0	otherwise, assume diesel generator
2	Welders	46	0.45	4	30	0.6	
Building - Interior/Architectural Coating		**Start Date:**	**5/13/2019**	**Total phase:**	**440**		
		End Date:	**1/16/2021**				
2	Air Compressors	78	0.48	7	132	2.1	
1	Aerial Lift	63	0.31	6	220	3.0	
	Paving	**Start Date:**	**1/18/2021**	**Total phase:**	**25**		
		Start Date:	**2/19/2021**				
1	Cement and Mortar Mixers	9	0.56	4	25	4.0	
1	Pavers	130	0.42	6	6	1.4	**Asphalt? _100__ cubic yards or ____ round trips?**
1	Paving Equipment	132	0.36	6	6	1.4	
1	Rollers	80	0.38	5	15	3.0	
1	Tractors/Loaders/Backhoes	97	0.37	6	15	3.6	

Race Street MU - 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	262.00	Space	0.00	100,550.00	0
Parking Lot	10.00	Space	0.09	16,602.00	0
Apartments Mid Rise	206.00	Dwelling Unit	2.21	206,000.00	589
Strip Mall	8.50	1000sqft	0.00	8,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2022
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

Land Use - Land uses from traffic report, sf from construction spreadsheet, 2.3ac

Construction Phase - anticipated phasing schedule provided by applicant

Off-road Equipment - Proposed equipment list provided by applicant

Off-road Equipment - Proposed equipment list provided by applicant

Off-road Equipment - Proposed equipment list provided by applicant

Off-road Equipment - Proposed equipment list provided by applicant

Off-road Equipment - Proposed equipment list provided by applicant

Off-road Equipment - Proposed equipment list provided by applicant

Off-road Equipment - Proposed equipment list provided by applicant

Trips and VMT - Demo: 1,600 tons pavement = 160 trips (@ 20 tons/truck) + 232 trips (bldg demo) = 392 trips. Paving: 100cy asphalt = 14 trips (@ 16cy/truck). Vendor trip length for asphalt.

Demolition - 51,075sf bldg demo

Grading - 800cy soil export

Vehicle Trips - Trip rates from project traffic report. Retail pass-by set to zero (accounted for in trip rate).

Woodstoves - no woodstoves, no wood fireplaces, possible gas-powered fireplaces.

Energy Use - default

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	440.00
tblConstructionPhase	NumDays	220.00	205.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	6.00	7.00
tblConstructionPhase	NumDays	10.00	25.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	30.90	65.92
tblFireplaces	NumberWood	35.02	0.00
tblGrading	AcresOfGrading	0.00	2.30
tblGrading	MaterialExported	0.00	800.00
tblLandUse	BuildingSpaceSquareFeet	104,800.00	100,550.00
tblLandUse	BuildingSpaceSquareFeet	4,000.00	16,602.00
tblLandUse	LandUseSquareFeet	104,800.00	100,550.00
tblLandUse	LandUseSquareFeet	4,000.00	16,602.00
tblLandUse	LotAcreage	2.36	0.00
tblLandUse	LotAcreage	5.42	2.21
tblLandUse	LotAcreage	0.20	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	UsageHours	6.00	2.10
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	1.60
tblOffRoadEquipment	UsageHours	7.00	3.10
tblOffRoadEquipment	UsageHours	8.00	1.40
tblOffRoadEquipment	UsageHours	8.00	1.40
tblOffRoadEquipment	UsageHours	8.00	3.00
tblOffRoadEquipment	UsageHours	8.00	4.80
tblOffRoadEquipment	UsageHours	8.00	9.10
tblOffRoadEquipment	UsageHours	6.00	1.00
tblOffRoadEquipment	UsageHours	8.00	6.40
tblOffRoadEquipment	UsageHours	7.00	9.10
tblOffRoadEquipment	UsageHours	8.00	3.60
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	0.60
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblProjectCharacteristics	OperationalYear	2018	2022
tblTripsAndVMT	HaulingTripLength	20.00	7.30
tblTripsAndVMT	HaulingTripNumber	232.00	392.00
tblTripsAndVMT	HaulingTripNumber	0.00	14.00
tblVehicleTrips	PB_TP	15.00	0.00

tblVehicleTrips	PR_TP	45.00	60.00
tblVehicleTrips	ST_TR	6.39	4.98
tblVehicleTrips	ST_TR	42.04	24.38
tblVehicleTrips	SU_TR	5.86	4.57
tblVehicleTrips	SU_TR	20.43	11.85
tblVehicleTrips	WD_TR	6.65	5.19
tblVehicleTrips	WD_TR	44.32	25.53
tblWoodstoves	NumberCatalytic	4.12	0.00
tblWoodstoves	NumberNoncatalytic	4.12	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	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	0.6621	0.6150	0.6411	1.9200e-003	0.1626	0.0201	0.1828	0.0498	0.0193	0.0691	0.0000	176.3896	176.3896	0.0128	0.0000	176.7102
2020	1.0079	0.6065	0.8211	2.5500e-003	0.1612	0.0177	0.1788	0.0433	0.0172	0.0605	0.0000	232.6288	232.6288	0.0125	0.0000	232.9417
2021	0.0435	0.0409	0.0536	1.0000e-004	3.0800e-003	2.1600e-003	5.2400e-003	8.2000e-004	2.0200e-003	2.8400e-003	0.0000	8.6217	8.6217	1.6600e-003	0.0000	8.6631
Maximum	**1.0079**	**0.6150**	**0.8211**	**2.5500e-003**	**0.1626**	**0.0201**	**0.1828**	**0.0498**	**0.0193**	**0.0691**	**0.0000**	**232.6288**	**232.6288**	**0.0128**	**0.0000**	**232.9417**

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	0.6621	0.6150	0.6411	1.9200e-003	0.1626	0.0201	0.1828	0.0498	0.0193	0.0691	0.0000	176.3895	176.3895	0.0128	0.0000	176.7102
2020	1.0079	0.6065	0.8211	2.5500e-003	0.1612	0.0177	0.1788	0.0433	0.0172	0.0605	0.0000	232.6287	232.6287	0.0125	0.0000	232.9416
2021	0.0435	0.0409	0.0536	1.0000e-004	3.0800e-003	2.1600e-003	5.2400e-003	8.2000e-004	2.0200e-003	2.8400e-003	0.0000	8.6217	8.6217	1.6600e-003	0.0000	8.6631
Maximum	**1.0079**	**0.6150**	**0.8211**	**2.5500e-003**	**0.1626**	**0.0201**	**0.1828**	**0.0498**	**0.0193**	**0.0691**	**0.0000**	**232.6287**	**232.6287**	**0.0128**	**0.0000**	**232.9416**

	ROG	NOx	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	**3-11-2019**	**6-10-2019**	0.2964	0.2964
2	**6-11-2019**	**9-10-2019**	0.2923	0.2923
3	**9-11-2019**	**12-10-2019**	0.5430	0.5430
4	**12-11-2019**	**3-10-2020**	0.5347	0.5347
5	**3-11-2020**	**6-10-2020**	0.5272	0.5272
6	**6-11-2020**	**9-10-2020**	0.3336	0.3336
7	**9-11-2020**	**12-10-2020**	0.2845	0.2845
8	**12-11-2020**	**3-10-2021**	0.1500	0.1500
		Highest	0.5430	0.5430

2.2 Overall Operational

Unmitigated Operational

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

Category	tons/yr										MT/yr					
Area	1.0445	0.0248	1.5368	1.3000e-004		9.0400e-003	9.0400e-003		9.0400e-003	9.0400e-003	0.0000	10.7330	10.7330	2.5800e-003	1.5000e-004	10.8425
Energy	0.0124	0.1061	0.0455	6.8000e-004		8.5700e-003	8.5700e-003		8.5700e-003	8.5700e-003	0.0000	345.5998	345.5998	0.0246	6.8600e-003	348.2603
Mobile	0.2861	1.2060	3.2906	0.0113	1.0418	9.6300e-003	1.0514	0.2789	8.9900e-003	0.2879	0.0000	1,036.2788	1,036.2788	0.0352	0.0000	1,037.1588
Waste						0.0000	0.0000		0.0000	0.0000	21.0481	0.0000	21.0481	1.2439	0.0000	52.1459
Water						0.0000	0.0000		0.0000	0.0000	4.4578	14.0747	18.5325	0.4593	0.0111	33.3228
Total	**1.3430**	**1.3369**	**4.8730**	**0.0121**	**1.0418**	**0.0272**	**1.0690**	**0.2789**	**0.0266**	**0.3055**	**25.5060**	**1,406.6863**	**1,432.1922**	**1.7656**	**0.0181**	**1,481.7302**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.0445	0.0248	1.5368	1.3000e-004		9.0400e-003	9.0400e-003		9.0400e-003	9.0400e-003	0.0000	10.7330	10.7330	2.5800e-003	1.5000e-004	10.8425
Energy	0.0124	0.1061	0.0455	6.8000e-004		8.5700e-003	8.5700e-003		8.5700e-003	8.5700e-003	0.0000	345.5998	345.5998	0.0246	6.8600e-003	348.2603
Mobile	0.2861	1.2060	3.2906	0.0113	1.0418	9.6300e-003	1.0514	0.2789	8.9900e-003	0.2879	0.0000	1,036.2788	1,036.2788	0.0352	0.0000	1,037.1588
Waste						0.0000	0.0000		0.0000	0.0000	21.0481	0.0000	21.0481	1.2439	0.0000	52.1459
Water						0.0000	0.0000		0.0000	0.0000	4.4578	14.0747	18.5325	0.4593	0.0111	33.3228
Total	**1.3430**	**1.3369**	**4.8730**	**0.0121**	**1.0418**	**0.0272**	**1.0690**	**0.2789**	**0.0266**	**0.3055**	**25.5060**	**1,406.6863**	**1,432.1922**	**1.7656**	**0.0181**	**1,481.7302**

	ROG	NOx	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	3/11/2019	3/17/2019	5	5	
2	Site Preparation	Site Preparation	3/18/2019	3/20/2019	5	3	
3	Grading	Grading	3/21/2019	3/29/2019	5	7	
4	Trenching	Trenching	4/1/2019	4/12/2019	5	10	
5	Architectural Coating	Architectural Coating	5/13/2019	1/16/2021	5	440	
6	Building Construction	Building Construction	9/16/2019	6/28/2020	5	205	
7	Paving	Paving	1/18/2021	2/19/2021	5	25	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 2.3

Acres of Paving: 0.09

Residential Indoor: 417,150; Residential Outdoor: 139,050; Non-Residential Indoor: 12,750; Non-Residential Outdoor: 4,250; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Aerial Lifts	1	3.00	63	0.31
Architectural Coating	Air Compressors	2	2.10	78	0.48
Building Construction	Cranes	0	8.00	231	0.29
Building Construction	Forklifts	1	3.10	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	1.00	97	0.37
Building Construction	Welders	2	0.60	46	0.45
Demolition	Concrete/Industrial Saws	1	1.60	81	0.73
Demolition	Excavators	1	4.80	158	0.38
Demolition	Rubber Tired Dozers	1	4.80	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	6.40	97	0.37

Grading	Graders	0	8.00	187	0.41
Grading	Rubber Tired Dozers	1	9.10	247	0.40
Grading	Tractors/Loaders/Backhoes	1	9.10	97	0.37
Paving	Cement and Mortar Mixers	1	4.00	9	0.56
Paving	Pavers	1	1.40	130	0.42
Paving	Paving Equipment	1	1.40	132	0.36
Paving	Rollers	1	3.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	3.60	97	0.37
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Scrapers	0	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Excavators	1	8.80	158	0.38
Trenching	Tractors/Loaders/Backhoes	1	4.40	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
Architectural Coating	3	40.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	4	200.00	43.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	4	10.00	0.00	392.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	2	5.00	0.00	100.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	14.00	10.80	7.30	7.30	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
Trenching	2	5.00	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					
Fugitive Dust					0.0251	0.0000	0.0251	3.8100e-003	0.0000	3.8100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7900e-003	0.0286	0.0178	3.0000e-005		1.5000e-003	1.5000e-003		1.3900e-003	1.3900e-003	0.0000	2.6728	2.6728	7.8000e-004	0.0000	2.6923
Total	**2.7900e-003**	**0.0286**	**0.0178**	**3.0000e-005**	**0.0251**	**1.5000e-003**	**0.0266**	**3.8100e-003**	**1.3900e-003**	**5.2000e-003**	**0.0000**	**2.6728**	**2.6728**	**7.8000e-004**	**0.0000**	**2.6923**

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	1.7800e-003	0.0610	0.0121	1.6000e-004	3.3200e-003	2.3000e-004	3.5600e-003	9.1000e-004	2.2000e-004	1.1400e-003	0.0000	15.1046	15.1046	7.1000e-004	0.0000	15.1223
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	7.0000e-005	7.0000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1755	0.1755	0.0000	0.0000	0.1756
Total	**1.8700e-003**	**0.0611**	**0.0128**	**1.6000e-004**	**3.5200e-003**	**2.3000e-004**	**3.7600e-003**	**9.6000e-004**	**2.2000e-004**	**1.1900e-003**	**0.0000**	**15.2802**	**15.2802**	**7.1000e-004**	**0.0000**	**15.2980**

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					0.0251	0.0000	0.0251	3.8100e-003	0.0000	3.8100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7900e-003	0.0286	0.0178	3.0000e-005		1.5000e-003	1.5000e-003		1.3900e-003	1.3900e-003	0.0000	2.6728	2.6728	7.8000e-004	0.0000	2.6923
Total	**2.7900e-003**	**0.0286**	**0.0178**	**3.0000e-005**	**0.0251**	**1.5000e-003**	**0.0266**	**3.8100e-003**	**1.3900e-003**	**5.2000e-003**	**0.0000**	**2.6728**	**2.6728**	**7.8000e-004**	**0.0000**	**2.6923**

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	1.7800e-003	0.0610	0.0121	1.6000e-004	3.3200e-003	2.3000e-004	3.5600e-003	9.1000e-004	2.2000e-004	1.1400e-003	0.0000	15.1046	15.1046	7.1000e-004	0.0000	15.1223
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	7.0000e-005	7.0000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1755	0.1755	0.0000	0.0000	0.1756
Total	**1.8700e-003**	**0.0611**	**0.0128**	**1.6000e-004**	**3.5200e-003**	**2.3000e-004**	**3.7600e-003**	**9.6000e-004**	**2.2000e-004**	**1.1900e-003**	**0.0000**	**15.2802**	**15.2802**	**7.1000e-004**	**0.0000**	**15.2980**

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					9.0300e-003	0.0000	9.0300e-003	4.9700e-003	0.0000	4.9700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0216	9.8800e-003	2.0000e-005		1.1200e-003	1.1200e-003		1.0300e-003	1.0300e-003	0.0000	1.5689	1.5689	5.0000e-004	0.0000	1.5814
Total	**2.0500e-003**	**0.0216**	**9.8800e-003**	**2.0000e-005**	**9.0300e-003**	**1.1200e-003**	**0.0102**	**4.9700e-003**	**1.0300e-003**	**6.0000e-003**	**0.0000**	**1.5689**	**1.5689**	**5.0000e-004**	**0.0000**	**1.5814**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.1000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0527	0.0527	0.0000	0.0000	0.0527
Total	**3.0000e-005**	**2.0000e-005**	**2.1000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0527**	**0.0527**	**0.0000**	**0.0000**	**0.0527**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.0300e-003	0.0000	9.0300e-003	4.9700e-003	0.0000	4.9700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0216	9.8800e-003	2.0000e-005		1.1200e-003	1.1200e-003		1.0300e-003	1.0300e-003	0.0000	1.5689	1.5689	5.0000e-004	0.0000	1.5813
Total	**2.0500e-003**	**0.0216**	**9.8800e-003**	**2.0000e-005**	**9.0300e-003**	**1.1200e-003**	**0.0102**	**4.9700e-003**	**1.0300e-003**	**6.0000e-003**	**0.0000**	**1.5689**	**1.5689**	**5.0000e-004**	**0.0000**	**1.5813**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.1000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0527	0.0527	0.0000	0.0000	0.0527
Total	**3.0000e-005**	**2.0000e-005**	**2.1000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0527**	**0.0527**	**0.0000**	**0.0000**	**0.0527**

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					0.0252	0.0000	0.0252	0.0133	0.0000	0.0133	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4400e-003	0.0574	0.0262	5.0000e-005		2.9700e-003	2.9700e-003		2.7300e-003	2.7300e-003	0.0000	4.1642	4.1642	1.3200e-003	0.0000	4.1972
Total	**5.4400e-003**	**0.0574**	**0.0262**	**5.0000e-005**	**0.0252**	**2.9700e-003**	**0.0282**	**0.0133**	**2.7300e-003**	**0.0161**	**0.0000**	**4.1642**	**4.1642**	**1.3200e-003**	**0.0000**	**4.1972**

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	4.5000e-004	0.0156	3.0700e-003	4.0000e-005	8.5000e-004	6.0000e-005	9.1000e-004	2.3000e-004	6.0000e-005	2.9000e-004	0.0000	3.8532	3.8532	1.8000e-004	0.0000	3.8577

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	5.0000e-005	4.9000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1229	0.1229	0.0000	0.0000	0.1230
Total	**5.1000e-004**	**0.0156**	**3.5600e-003**	**4.0000e-005**	**9.9000e-004**	**6.0000e-005**	**1.0500e-003**	**2.7000e-004**	**6.0000e-005**	**3.3000e-004**	**0.0000**	**3.9761**	**3.9761**	**1.8000e-004**	**0.0000**	**3.9807**

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					0.0252	0.0000	0.0252	0.0133	0.0000	0.0133	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4400e-003	0.0574	0.0262	5.0000e-005		2.9700e-003	2.9700e-003		2.7300e-003	2.7300e-003	0.0000	4.1642	4.1642	1.3200e-003	0.0000	4.1972
Total	**5.4400e-003**	**0.0574**	**0.0262**	**5.0000e-005**	**0.0252**	**2.9700e-003**	**0.0282**	**0.0133**	**2.7300e-003**	**0.0161**	**0.0000**	**4.1642**	**4.1642**	**1.3200e-003**	**0.0000**	**4.1972**

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	4.5000e-004	0.0156	3.0700e-003	4.0000e-005	8.5000e-004	6.0000e-005	9.1000e-004	2.3000e-004	6.0000e-005	2.9000e-004	0.0000	3.8532	3.8532	1.8000e-004	0.0000	3.8577
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	5.0000e-005	4.9000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1229	0.1229	0.0000	0.0000	0.1230
Total	**5.1000e-004**	**0.0156**	**3.5600e-003**	**4.0000e-005**	**9.9000e-004**	**6.0000e-005**	**1.0500e-003**	**2.7000e-004**	**6.0000e-005**	**3.3000e-004**	**0.0000**	**3.9761**	**3.9761**	**1.8000e-004**	**0.0000**	**3.9807**

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	2.0700e-003	0.0212	0.0243	4.0000e-005		1.1400e-003	1.1400e-003		1.0500e-003	1.0500e-003	0.0000	3.3175	3.3175	1.0500e-003	0.0000	3.3438
Total	**2.0700e-003**	**0.0212**	**0.0243**	**4.0000e-005**		**1.1400e-003**	**1.1400e-003**		**1.0500e-003**	**1.0500e-003**	**0.0000**	**3.3175**	**3.3175**	**1.0500e-003**	**0.0000**	**3.3438**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	7.0000e-005	7.0000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1755	0.1755	0.0000	0.0000	0.1756
Total	**9.0000e-005**	**7.0000e-005**	**7.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1755**	**0.1755**	**0.0000**	**0.0000**	**0.1756**

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	0.0212	0.0243	4.0000e-005		1.1400e-003	1.1400e-003		1.0500e-003	1.0500e-003	0.0000	3.3175	3.3175	1.0500e-003	0.0000	3.3438
Total	**2.0700e-003**	**0.0212**	**0.0243**	**4.0000e-005**		**1.1400e-003**	**1.1400e-003**		**1.0500e-003**	**1.0500e-003**	**0.0000**	**3.3175**	**3.3175**	**1.0500e-003**	**0.0000**	**3.3438**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	7.0000e-005	7.0000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1755	0.1755	0.0000	0.0000	0.1756
Total	**9.0000e-005**	**7.0000e-005**	**7.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1755**	**0.1755**	**0.0000**	**0.0000**	**0.1756**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5765					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	0.0169	0.1286	0.1418	2.3000e-004		8.0500e-003	8.0500e-003		8.0100e-003	8.0100e-003	0.0000	19.6458	19.6458	2.7500e-003	0.0000	19.7147
Total	**0.5933**	**0.1286**	**0.1418**	**2.3000e-004**		**8.0500e-003**	**8.0500e-003**		**8.0100e-003**	**8.0100e-003**	**0.0000**	**19.6458**	**19.6458**	**2.7500e-003**	**0.0000**	**19.7147**

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	0.0121	9.0300e-003	0.0933	2.6000e-004	0.0265	1.7000e-004	0.0267	7.0500e-003	1.6000e-004	7.2100e-003	0.0000	23.4496	23.4496	6.4000e-004	0.0000	23.4655
Total	**0.0121**	**9.0300e-003**	**0.0933**	**2.6000e-004**	**0.0265**	**1.7000e-004**	**0.0267**	**7.0500e-003**	**1.6000e-004**	**7.2100e-003**	**0.0000**	**23.4496**	**23.4496**	**6.4000e-004**	**0.0000**	**23.4655**

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	0.5765					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0169	0.1286	0.1418	2.3000e-004		8.0500e-003	8.0500e-003		8.0100e-003	8.0100e-003	0.0000	19.6458	19.6458	2.7500e-003	0.0000	19.7147
Total	**0.5933**	**0.1286**	**0.1418**	**2.3000e-004**		**8.0500e-003**	**8.0500e-003**		**8.0100e-003**	**8.0100e-003**	**0.0000**	**19.6458**	**19.6458**	**2.7500e-003**	**0.0000**	**19.7147**

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	0.0121	9.0300e-003	0.0933	2.6000e-004	0.0265	1.7000e-004	0.0267	7.0500e-003	1.6000e-004	7.2100e-003	0.0000	23.4496	23.4496	6.4000e-004	0.0000	23.4655
Total	**0.0121**	**9.0300e-003**	**0.0933**	**2.6000e-004**	**0.0265**	**1.7000e-004**	**0.0267**	**7.0500e-003**	**1.6000e-004**	**7.2100e-003**	**0.0000**	**23.4496**	**23.4496**	**6.4000e-004**	**0.0000**	**23.4655**

3.6 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	0.9044					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0242	0.1860	0.2217	3.6000e-004		0.0109	0.0109		0.0108	0.0108	0.0000	30.6606	30.6606	4.1600e-003	0.0000	30.7645
Total	**0.9286**	**0.1860**	**0.2217**	**3.6000e-004**		**0.0109**	**0.0109**		**0.0108**	**0.0108**	**0.0000**	**30.6606**	**30.6606**	**4.1600e-003**	**0.0000**	**30.7645**

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	0.0174	0.0125	0.1311	3.9000e-004	0.0416	2.7000e-004	0.0418	0.0111	2.5000e-004	0.0113	0.0000	35.6398	35.6398	8.7000e-004	0.0000	35.6617
Total	**0.0174**	**0.0125**	**0.1311**	**3.9000e-004**	**0.0416**	**2.7000e-004**	**0.0418**	**0.0111**	**2.5000e-004**	**0.0113**	**0.0000**	**35.6398**	**35.6398**	**8.7000e-004**	**0.0000**	**35.6617**

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	0.9044					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0242	0.1860	0.2217	3.6000e-004		0.0109	0.0109		0.0108	0.0108	0.0000	30.6605	30.6605	4.1600e-003	0.0000	30.7644
Total	**0.9286**	**0.1860**	**0.2217**	**3.6000e-004**		**0.0109**	**0.0109**		**0.0108**	**0.0108**	**0.0000**	**30.6605**	**30.6605**	**4.1600e-003**	**0.0000**	**30.7644**

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	0.0174	0.0125	0.1311	3.9000e-004	0.0416	2.7000e-004	0.0418	0.0111	2.5000e-004	0.0113	0.0000	35.6398	35.6398	8.7000e-004	0.0000	35.6617
Total	**0.0174**	**0.0125**	**0.1311**	**3.9000e-004**	**0.0416**	**2.7000e-004**	**0.0418**	**0.0111**	**2.5000e-004**	**0.0113**	**0.0000**	**35.6398**	**35.6398**	**8.7000e-004**	**0.0000**	**35.6617**

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0380					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2000e-004	7.1200e-003	9.2500e-003	1.0000e-005		3.9000e-004	3.9000e-004		3.8000e-004	3.8000e-004	0.0000	1.2873	1.2873	1.7000e-004	0.0000	1.2914
Total	**0.0389**	**7.1200e-003**	**9.2500e-003**	**1.0000e-005**		**3.9000e-004**	**3.9000e-004**		**3.8000e-004**	**3.8000e-004**	**0.0000**	**1.2873**	**1.2873**	**1.7000e-004**	**0.0000**	**1.2914**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8000e-004	4.7000e-004	5.0300e-003	2.0000e-005	1.7400e-003	1.0000e-005	1.7600e-003	4.6000e-004	1.0000e-005	4.7000e-004	0.0000	1.4444	1.4444	3.0000e-005	0.0000	1.4452
Total	**6.8000e-004**	**4.7000e-004**	**5.0300e-003**	**2.0000e-005**	**1.7400e-003**	**1.0000e-005**	**1.7600e-003**	**4.6000e-004**	**1.0000e-005**	**4.7000e-004**	**0.0000**	**1.4444**	**1.4444**	**3.0000e-005**	**0.0000**	**1.4452**

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	0.0380					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2000e-004	7.1200e-003	9.2500e-003	1.0000e-005		3.9000e-004	3.9000e-004		3.8000e-004	3.8000e-004	0.0000	1.2873	1.2873	1.7000e-004	0.0000	1.2914
Total	**0.0389**	**7.1200e-003**	**9.2500e-003**	**1.0000e-005**		**3.9000e-004**	**3.9000e-004**		**3.8000e-004**	**3.8000e-004**	**0.0000**	**1.2873**	**1.2873**	**1.7000e-004**	**0.0000**	**1.2914**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8000e-004	4.7000e-004	5.0300e-003	2.0000e-005	1.7400e-003	1.0000e-005	1.7600e-003	4.6000e-004	1.0000e-005	4.7000e-004	0.0000	1.4444	1.4444	3.0000e-005	0.0000	1.4452
Total	**6.8000e-004**	**4.7000e-004**	**5.0300e-003**	**2.0000e-005**	**1.7400e-003**	**1.0000e-005**	**1.7600e-003**	**4.6000e-004**	**1.0000e-005**	**4.7000e-004**	**0.0000**	**1.4444**	**1.4444**	**3.0000e-005**	**0.0000**	**1.4452**

3.7 Building Construction - 2019

Unmitigated Construction On-Site

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

Category	tons/yr										MT/yr					
Off-Road	5.7300e-003	0.0419	0.0393	5.0000e-005		2.9800e-003	2.9800e-003		2.7900e-003	2.7900e-003	0.0000	4.4776	4.4776	1.2500e-003	0.0000	4.5090
Total	**5.7300e-003**	**0.0419**	**0.0393**	**5.0000e-005**		**2.9800e-003**	**2.9800e-003**		**2.7900e-003**	**2.7900e-003**	**0.0000**	**4.4776**	**4.4776**	**1.2500e-003**	**0.0000**	**4.5090**

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	8.1200e-003	0.2091	0.0561	4.5000e-004	0.0109	1.5000e-003	0.0124	3.1500e-003	1.4400e-003	4.5900e-003	0.0000	43.5482	43.5482	2.1600e-003	0.0000	43.6022
Worker	0.0280	0.0208	0.2151	6.0000e-004	0.0611	4.0000e-004	0.0615	0.0162	3.7000e-004	0.0166	0.0000	54.0604	54.0604	1.4700e-003	0.0000	54.0972
Total	**0.0361**	**0.2299**	**0.2712**	**1.0500e-003**	**0.0720**	**1.9000e-003**	**0.0739**	**0.0194**	**1.8100e-003**	**0.0212**	**0.0000**	**97.6087**	**97.6087**	**3.6300e-003**	**0.0000**	**97.6995**

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	5.7300e-003	0.0419	0.0393	5.0000e-005		2.9800e-003	2.9800e-003		2.7900e-003	2.7900e-003	0.0000	4.4776	4.4776	1.2500e-003	0.0000	4.5090
Total	**5.7300e-003**	**0.0419**	**0.0393**	**5.0000e-005**		**2.9800e-003**	**2.9800e-003**		**2.7900e-003**	**2.7900e-003**	**0.0000**	**4.4776**	**4.4776**	**1.2500e-003**	**0.0000**	**4.5090**

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	8.1200e-003	0.2091	0.0561	4.5000e-004	0.0109	1.5000e-003	0.0124	3.1500e-003	1.4400e-003	4.5900e-003	0.0000	43.5482	43.5482	2.1600e-003	0.0000	43.6022
Worker	0.0280	0.0208	0.2151	6.0000e-004	0.0611	4.0000e-004	0.0615	0.0162	3.7000e-004	0.0166	0.0000	54.0604	54.0604	1.4700e-003	0.0000	54.0972
Total	**0.0361**	**0.2299**	**0.2712**	**1.0500e-003**	**0.0720**	**1.9000e-003**	**0.0739**	**0.0194**	**1.8100e-003**	**0.0212**	**0.0000**	**97.6087**	**97.6087**	**3.6300e-003**	**0.0000**	**97.6995**

3.7 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.5300e-003	0.0641	0.0645	9.0000e-005		4.3000e-003	4.3000e-003		4.0200e-003	4.0200e-003	0.0000	7.3202	7.3202	2.0500e-003	0.0000	7.3714
Total	**8.5300e-003**	**0.0641**	**0.0645**	**9.0000e-005**		**4.3000e-003**	**4.3000e-003**		**4.0200e-003**	**4.0200e-003**	**0.0000**	**7.3202**	**7.3202**	**2.0500e-003**	**0.0000**	**7.3714**

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	0.0109	0.3134	0.0835	7.5000e-004	0.0181	1.5500e-003	0.0197	5.2300e-003	1.4800e-003	6.7200e-003	0.0000	71.9491	71.9491	3.3000e-003	0.0000	72.0315
Worker	0.0425	0.0306	0.3203	9.6000e-004	0.1015	6.6000e-004	0.1022	0.0270	6.0000e-004	0.0276	0.0000	87.0591	87.0591	2.1400e-003	0.0000	87.1125
Total	**0.0534**	**0.3439**	**0.4038**	**1.7100e-003**	**0.1196**	**2.2100e-003**	**0.1218**	**0.0322**	**2.0800e-003**	**0.0343**	**0.0000**	**159.0082**	**159.0082**	**5.4400e-003**	**0.0000**	**159.1441**

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	8.5300e-003	0.0641	0.0645	9.0000e-005		4.3000e-003	4.3000e-003		4.0200e-003	4.0200e-003	0.0000	7.3202	7.3202	2.0500e-003	0.0000	7.3714
Total	**8.5300e-003**	**0.0641**	**0.0645**	**9.0000e-005**		**4.3000e-003**	**4.3000e-003**		**4.0200e-003**	**4.0200e-003**	**0.0000**	**7.3202**	**7.3202**	**2.0500e-003**	**0.0000**	**7.3714**

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	0.0109	0.3134	0.0835	7.5000e-004	0.0181	1.5500e-003	0.0197	5.2300e-003	1.4800e-003	6.7200e-003	0.0000	71.9491	71.9491	3.3000e-003	0.0000	72.0315
Worker	0.0425	0.0306	0.3203	9.6000e-004	0.1015	6.6000e-004	0.1022	0.0270	6.0000e-004	0.0276	0.0000	87.0591	87.0591	2.1400e-003	0.0000	87.1125
Total	**0.0534**	**0.3439**	**0.4038**	**1.7100e-003**	**0.1196**	**2.2100e-003**	**0.1218**	**0.0322**	**2.0800e-003**	**0.0343**	**0.0000**	**159.0082**	**159.0082**	**5.4400e-003**	**0.0000**	**159.1441**

3.8 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.2700e-003	0.0319	0.0354	5.0000e-005		1.7500e-003	1.7500e-003		1.6200e-003	1.6200e-003	0.0000	4.5882	4.5882	1.4200e-003	0.0000	4.6238
Paving	1.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.3900e-003**	**0.0319**	**0.0354**	**5.0000e-005**		**1.7500e-003**	**1.7500e-003**		**1.6200e-003**	**1.6200e-003**	**0.0000**	**4.5882**	**4.5882**	**1.4200e-003**	**0.0000**	**4.6238**

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	3.0000e-005	1.0800e-003	2.1000e-004	0.0000	4.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.2349	0.2349	1.0000e-005	0.0000	0.2353
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	3.5000e-004	3.7200e-003	1.0000e-005	1.2900e-003	1.0000e-005	1.3000e-003	3.4000e-004	1.0000e-005	3.5000e-004	0.0000	1.0669	1.0669	2.0000e-005	0.0000	1.0675

Total	**5.3000e-004**	**1.4300e-003**	**3.9300e-003**	**1.0000e-005**	**1.3300e-003**	**1.0000e-005**	**1.3500e-003**	**3.5000e-004**	**1.0000e-005**	**3.6000e-004**	**0.0000**	**1.3018**	**1.3018**	**3.0000e-005**	**0.0000**	**1.3028**

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	3.2700e-003	0.0319	0.0354	5.0000e-005		1.7500e-003	1.7500e-003		1.6200e-003	1.6200e-003	0.0000	4.5882	4.5882	1.4200e-003	0.0000	4.6237
Paving	1.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.3900e-003**	**0.0319**	**0.0354**	**5.0000e-005**		**1.7500e-003**	**1.7500e-003**		**1.6200e-003**	**1.6200e-003**	**0.0000**	**4.5882**	**4.5882**	**1.4200e-003**	**0.0000**	**4.6237**

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	3.0000e-005	1.0800e-003	2.1000e-004	0.0000	4.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.2349	0.2349	1.0000e-005	0.0000	0.2353
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	3.5000e-004	3.7200e-003	1.0000e-005	1.2900e-003	1.0000e-005	1.3000e-003	3.4000e-004	1.0000e-005	3.5000e-004	0.0000	1.0669	1.0669	2.0000e-005	0.0000	1.0675
Total	**5.3000e-004**	**1.4300e-003**	**3.9300e-003**	**1.0000e-005**	**1.3300e-003**	**1.0000e-005**	**1.3500e-003**	**3.5000e-004**	**1.0000e-005**	**3.6000e-004**	**0.0000**	**1.3018**	**1.3018**	**3.0000e-005**	**0.0000**	**1.3028**

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	0.2861	1.2060	3.2906	0.0113	1.0418	9.6300e-003	1.0514	0.2789	8.9900e-003	0.2879	0.0000	1,036.2788	1,036.2788	0.0352	0.0000	1,037.1588
Unmitigated	0.2861	1.2060	3.2906	0.0113	1.0418	9.6300e-003	1.0514	0.2789	8.9900e-003	0.2879	0.0000	1,036.2788	1,036.2788	0.0352	0.0000	1,037.1588

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,069.14	1,025.88	941.42	2,412,880	2,412,880
Enclosed Parking with Elevator	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Strip Mall	217.01	207.23	100.73	388,660	388,660
Total	1,286.15	1,233.11	1,042.15	2,801,540	2,801,540

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	60	40	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740

Parking Lot	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740
Apartments Mid Rise	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740
Strip Mall	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740

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	222.8386	222.8386	0.0223	4.6100e-003	224.7696
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	222.8386	222.8386	0.0223	4.6100e-003	224.7696
NaturalGas Mitigated	0.0124	0.1061	0.0455	6.8000e-004		8.5700e-003	8.5700e-003		8.5700e-003	8.5700e-003	0.0000	122.7612	122.7612	2.3500e-003	2.2500e-003	123.4907
NaturalGas Unmitigated	0.0124	0.1061	0.0455	6.8000e-004		8.5700e-003	8.5700e-003		8.5700e-003	8.5700e-003	0.0000	122.7612	122.7612	2.3500e-003	2.2500e-003	123.4907

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					
Apartments Mid Rise	2.28023e+006	0.0123	0.1051	0.0447	6.7000e-004		8.4900e-003	8.4900e-003		8.4900e-003	8.4900e-003	0.0000	121.6817	121.6817	2.3300e-003	2.2300e-003	122.4048

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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	20230	1.1000e-004	9.9000e-004	8.3000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.0796	1.0796	2.0000e-005	2.0000e-005	1.0860
Total		**0.0124**	**0.1061**	**0.0455**	**6.8000e-004**		**8.5700e-003**	**8.5700e-003**		**8.5700e-003**	**8.5700e-003**	**0.0000**	**122.7612**	**122.7612**	**2.3500e-003**	**2.2500e-003**	**123.4907**

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					
Apartments Mid Rise	2.28023e+006	0.0123	0.1051	0.0447	6.7000e-004		8.4900e-003	8.4900e-003		8.4900e-003	8.4900e-003	0.0000	121.6817	121.6817	2.3300e-003	2.2300e-003	122.4048
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	20230	1.1000e-004	9.9000e-004	8.3000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.0796	1.0796	2.0000e-005	2.0000e-005	1.0860
Total		**0.0124**	**0.1061**	**0.0455**	**6.8000e-004**		**8.5700e-003**	**8.5700e-003**		**8.5700e-003**	**8.5700e-003**	**0.0000**	**122.7612**	**122.7612**	**2.3500e-003**	**2.2500e-003**	**123.4907**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	908660	119.5267	0.0120	2.4700e-003	120.5625
Enclosed Parking with Elevator	677707	89.1468	8.9100e-003	1.8400e-003	89.9193

Parking Lot	14609.8	1.9218	1.9000e-004	4.0000e-005	1.9385
Strip Mall	93075	12.2433	1.2200e-003	2.5000e-004	12.3494
Total		**222.8386**	**0.0223**	**4.6000e-003**	**224.7696**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	908660	119.5267	0.0120	2.4700e-003	120.5625
Enclosed Parking with Elevator	677707	89.1468	8.9100e-003	1.8400e-003	89.9193
Parking Lot	14609.8	1.9218	1.9000e-004	4.0000e-005	1.9385
Strip Mall	93075	12.2433	1.2200e-003	2.5000e-004	12.3494
Total		**222.8386**	**0.0223**	**4.6000e-003**	**224.7696**

6.0 Area Detail

6.1 Mitigation Measures Area

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

Mitigated	1.0445	0.0248	1.5368	1.3000e-004		9.0400e-003	9.0400e-003		9.0400e-003	9.0400e-003	0.0000	10.7330	10.7330	2.5800e-003	1.5000e-004	10.8425
Unmitigated	1.0445	0.0248	1.5368	1.3000e-004		9.0400e-003	9.0400e-003		9.0400e-003	9.0400e-003	0.0000	10.7330	10.7330	2.5800e-003	1.5000e-004	10.8425

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	0.1519					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8453					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	8.3000e-004	7.1100e-003	3.0200e-003	5.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004	0.0000	8.2294	8.2294	1.6000e-004	1.5000e-004	8.2783
Landscaping	0.0465	0.0177	1.5338	8.0000e-005		8.4700e-003	8.4700e-003		8.4700e-003	8.4700e-003	0.0000	2.5036	2.5036	2.4200e-003	0.0000	2.5641
Total	**1.0445**	**0.0248**	**1.5368**	**1.3000e-004**		**9.0400e-003**	**9.0400e-003**		**9.0400e-003**	**9.0400e-003**	**0.0000**	**10.7330**	**10.7330**	**2.5800e-003**	**1.5000e-004**	**10.8425**

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	0.1519					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8453					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	8.3000e-004	7.1100e-003	3.0200e-003	5.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004	0.0000	8.2294	8.2294	1.6000e-004	1.5000e-004	8.2783

Landscaping	0.0465	0.0177	1.5338	8.0000e-005		8.4700e-003	8.4700e-003		8.4700e-003	8.4700e-003	0.0000	2.5036	2.5036	2.4200e-003	0.0000	2.5641
Total	**1.0445**	**0.0248**	**1.5368**	**1.3000e-004**		**9.0400e-003**	**9.0400e-003**		**9.0400e-003**	**9.0400e-003**	**0.0000**	**10.7330**	**10.7330**	**2.5800e-003**	**1.5000e-004**	**10.8425**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	18.5325	0.4593	0.0111	33.3228
Unmitigated	18.5325	0.4593	0.0111	33.3228

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	13.4217 / 8.46152	17.7070	0.4387	0.0106	31.8346
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.629616 / 0.385894	0.8256	0.0206	5.0000e-004	1.4882

Total		**18.5325**	**0.4593**	**0.0111**	**33.3228**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	13.4217 / 8.46152	17.7070	0.4387	0.0106	31.8346
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.629616 / 0.385894	0.8256	0.0206	5.0000e-004	1.4882
Total		**18.5325**	**0.4593**	**0.0111**	**33.3228**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	21.0481	1.2439	0.0000	52.1459
Unmitigated	21.0481	1.2439	0.0000	52.1459

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	94.76	19.2354	1.1368	0.0000	47.6550
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	8.93	1.8127	0.1071	0.0000	4.4909
Total		**21.0481**	**1.2439**	**0.0000**	**52.1459**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	94.76	19.2354	1.1368	0.0000	47.6550
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	8.93	1.8127	0.1071	0.0000	4.4909
Total		**21.0481**	**1.2439**	**0.0000**	**52.1459**

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

Race Street MU - San Jose - Santa Clara County, Annual

Race Street MU - San Jose, No Retail

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	262.00	Space	0.00	100,550.00	0
Parking Lot	10.00	Space	0.09	16,602.00	0
Apartments Mid Rise	206.00	Dwelling Unit	2.21	206,000.00	589

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2022
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

Land Use - Land uses from traffic report, sf from construction spreadsheet, 2.3ac

Construction Phase - anticipated phasing schedule provided by applicant

Off-road Equipment - Proposed equipment list provided by applicant

Off-road Equipment - Proposed equipment list provided by applicant

Off-road Equipment - Proposed equipment list provided by applicant

Off-road Equipment - Proposed equipment list provided by applicant

Off-road Equipment - Proposed equipment list provided by applicant

Off-road Equipment - Proposed equipment list provided by applicant

Off-road Equipment - Proposed equipment list provided by applicant

Trips and VMT - Demo: 1,600 tons pavement = 160 trips (@ 20 tons/truck) + 232 trips (bldg demo) = 392 trips. Paving: 100cy asphalt = 14 trips (@ 16cy/truck). Vendor trip lengths for asphalt.

Demolition - 51,075sf bldg demo

Grading - 800cy soil export

Vehicle Trips - Trip rates from project traffic report.

Woodstoves - no woodstoves, no wood fireplaces, possible gas-powered fireplaces.

Energy Use - default

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
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	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2

tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	10.00	440.00
tblConstructionPhase	NumDays	220.00	205.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	6.00	7.00
tblConstructionPhase	NumDays	10.00	25.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	30.90	65.92
tblFireplaces	NumberWood	35.02	0.00
tblGrading	AcresOfGrading	0.00	2.30
tblGrading	MaterialExported	0.00	800.00
tblLandUse	BuildingSpaceSquareFeet	104,800.00	100,550.00
tblLandUse	BuildingSpaceSquareFeet	4,000.00	16,602.00
tblLandUse	LandUseSquareFeet	104,800.00	100,550.00
tblLandUse	LandUseSquareFeet	4,000.00	16,602.00
tblLandUse	LotAcreage	2.36	0.00
tblLandUse	LotAcreage	5.42	2.21
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00

tblOffRoadEquipment	UsageHours	6.00	2.10
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	1.60
tblOffRoadEquipment	UsageHours	7.00	3.10
tblOffRoadEquipment	UsageHours	8.00	1.40
tblOffRoadEquipment	UsageHours	8.00	1.40
tblOffRoadEquipment	UsageHours	8.00	3.00
tblOffRoadEquipment	UsageHours	8.00	4.80
tblOffRoadEquipment	UsageHours	8.00	9.10
tblOffRoadEquipment	UsageHours	6.00	1.00
tblOffRoadEquipment	UsageHours	8.00	6.40
tblOffRoadEquipment	UsageHours	7.00	9.10
tblOffRoadEquipment	UsageHours	8.00	3.60
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	0.60
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblProjectCharacteristics	OperationalYear	2018	2022
tblTripsAndVMT	HaulingTripLength	20.00	7.30
tblTripsAndVMT	HaulingTripNumber	232.00	392.00
tblTripsAndVMT	HaulingTripNumber	0.00	14.00
tblVehicleTrips	ST_TR	6.39	4.98
tblVehicleTrips	SU_TR	5.86	4.57
tblVehicleTrips	WD_TR	6.65	5.19
tblWoodstoves	NumberCatalytic	4.12	0.00
tblWoodstoves	NumberNoncatalytic	4.12	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	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	0.6447	0.6051	0.6363	1.9000e-003	0.1615	0.0201	0.1816	0.0495	0.0192	0.0687	0.0000	173.8235	173.8235	0.0127	0.0000	174.1412
2020	0.9806	0.5917	0.8140	2.5100e-003	0.1593	0.0176	0.1769	0.0428	0.0171	0.0599	0.0000	228.4117	228.4117	0.0123	0.0000	228.7202
2021	0.0424	0.0409	0.0536	1.0000e-004	3.0800e-003	2.1600e-003	5.2400e-003	8.2000e-004	2.0200e-003	2.8400e-003	0.0000	8.6217	8.6217	1.6600e-003	0.0000	8.6631
Maximum	**0.9806**	**0.6051**	**0.8140**	**2.5100e-003**	**0.1615**	**0.0201**	**0.1816**	**0.0495**	**0.0192**	**0.0687**	**0.0000**	**228.4117**	**228.4117**	**0.0127**	**0.0000**	**228.7202**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.0069	0.0248	1.5368	1.3000e-004		9.0400e-003	9.0400e-003		9.0400e-003	9.0400e-003	0.0000	10.7328	10.7328	2.5800e-003	1.5000e-004	10.8423
Energy	0.0123	0.1051	0.0447	6.7000e-004		8.4900e-003	8.4900e-003		8.4900e-003	8.4900e-003	0.0000	332.2770	332.2770	0.0234	6.5900e-003	334.8250
Mobile	0.2423	1.0267	2.8152	9.7300e-003	0.8973	8.2600e-003	0.9055	0.2402	7.7200e-003	0.2479	0.0000	890.9296	890.9296	0.0301	0.0000	891.6823
Waste						0.0000	0.0000		0.0000	0.0000	19.2354	0.0000	19.2354	1.1368	0.0000	47.6550
Water						0.0000	0.0000		0.0000	0.0000	4.2581	13.4489	17.7070	0.4387	0.0106	31.8346
Total	**1.2615**	**1.1566**	**4.3967**	**0.0105**	**0.8973**	**0.0258**	**0.9230**	**0.2402**	**0.0253**	**0.2654**	**23.4935**	**1,247.3883**	**1,270.8818**	**1.6316**	**0.0173**	**1,316.8391**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.0069	0.0248	1.5368	1.3000e-004		9.0400e-003	9.0400e-003		9.0400e-003	9.0400e-003	0.0000	10.7328	10.7328	2.5800e-003	1.5000e-004	10.8423
Energy	0.0123	0.1051	0.0447	6.7000e-004		8.4900e-003	8.4900e-003		8.4900e-003	8.4900e-003	0.0000	332.2770	332.2770	0.0234	6.5900e-003	334.8250
Mobile	0.2423	1.0267	2.8152	9.7300e-003	0.8973	8.2600e-003	0.9055	0.2402	7.7200e-003	0.2479	0.0000	890.9296	890.9296	0.0301	0.0000	891.6823
Waste						0.0000	0.0000		0.0000	0.0000	19.2354	0.0000	19.2354	1.1368	0.0000	47.6550
Water						0.0000	0.0000		0.0000	0.0000	4.2581	13.4489	17.7070	0.4387	0.0106	31.8346
Total	**1.2615**	**1.1566**	**4.3967**	**0.0105**	**0.8973**	**0.0258**	**0.9230**	**0.2402**	**0.0253**	**0.2654**	**23.4935**	**1,247.3883**	**1,270.8818**	**1.6316**	**0.0173**	**1,316.8391**

	ROG	NOx	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	3/11/2019	3/17/2019	5	5	
2	Site Preparation	Site Preparation	3/18/2019	3/20/2019	5	3	
3	Grading	Grading	3/21/2019	3/29/2019	5	7	
4	Trenching	Trenching	4/1/2019	4/12/2019	5	10	
5	Architectural Coating	Architectural Coating	5/13/2019	1/16/2021	5	440	
6	Building Construction	Building Construction	9/16/2019	6/28/2020	5	205	

7	Paving	Paving	1/18/2021	2/19/2021	5	25	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 2.3

Acres of Paving: 0.09

Residential Indoor: 417,150; Residential Outdoor: 139,050; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Aerial Lifts	1	3.00	63	0.31
Architectural Coating	Air Compressors	2	2.10	78	0.48
Building Construction	Cranes	0	8.00	231	0.29
Building Construction	Forklifts	1	3.10	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	1.00	97	0.37
Building Construction	Welders	2	0.60	46	0.45
Demolition	Concrete/Industrial Saws	1	1.60	81	0.73
Demolition	Excavators	1	4.80	158	0.38
Demolition	Rubber Tired Dozers	1	4.80	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	6.40	97	0.37
Grading	Graders	0	8.00	187	0.41
Grading	Rubber Tired Dozers	1	9.10	247	0.40
Grading	Tractors/Loaders/Backhoes	1	9.10	97	0.37
Paving	Cement and Mortar Mixers	1	4.00	9	0.56
Paving	Pavers	1	1.40	130	0.42
Paving	Paving Equipment	1	1.40	132	0.36
Paving	Rollers	1	3.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	3.60	97	0.37
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40

Site Preparation	Scrapers	0	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Excavators	1	8.80	158	0.38
Trenching	Tractors/Loaders/Backhoes	1	4.40	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
Architectural Coating	3	40.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	4	198.00	41.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	4	10.00	0.00	392.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	2	5.00	0.00	100.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	14.00	10.80	7.30	7.30	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
Trenching	2	5.00	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					
Fugitive Dust					0.0251	0.0000	0.0251	3.8100e-003	0.0000	3.8100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7900e-003	0.0286	0.0178	3.0000e-005		1.5000e-003	1.5000e-003		1.3900e-003	1.3900e-003	0.0000	2.6728	2.6728	7.8000e-004	0.0000	2.6923
Total	**2.7900e-003**	**0.0286**	**0.0178**	**3.0000e-005**	**0.0251**	**1.5000e-003**	**0.0266**	**3.8100e-003**	**1.3900e-003**	**5.2000e-003**	**0.0000**	**2.6728**	**2.6728**	**7.8000e-004**	**0.0000**	**2.6923**

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	1.7800e-003	0.0610	0.0121	1.6000e-004	3.3200e-003	2.3000e-004	3.5600e-003	9.1000e-004	2.2000e-004	1.1400e-003	0.0000	15.1046	15.1046	7.1000e-004	0.0000	15.1223
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	7.0000e-005	7.0000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1755	0.1755	0.0000	0.0000	0.1756
Total	**1.8700e-003**	**0.0611**	**0.0128**	**1.6000e-004**	**3.5200e-003**	**2.3000e-004**	**3.7600e-003**	**9.6000e-004**	**2.2000e-004**	**1.1900e-003**	**0.0000**	**15.2802**	**15.2802**	**7.1000e-004**	**0.0000**	**15.2980**

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					9.0300e-003	0.0000	9.0300e-003	4.9700e-003	0.0000	4.9700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0216	9.8800e-003	2.0000e-005		1.1200e-003	1.1200e-003		1.0300e-003	1.0300e-003	0.0000	1.5689	1.5689	5.0000e-004	0.0000	1.5814
Total	**2.0500e-003**	**0.0216**	**9.8800e-003**	**2.0000e-005**	**9.0300e-003**	**1.1200e-003**	**0.0102**	**4.9700e-003**	**1.0300e-003**	**6.0000e-003**	**0.0000**	**1.5689**	**1.5689**	**5.0000e-004**	**0.0000**	**1.5814**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.1000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0527	0.0527	0.0000	0.0000	0.0527
Total	**3.0000e-005**	**2.0000e-005**	**2.1000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0527**	**0.0527**	**0.0000**	**0.0000**	**0.0527**

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					0.0252	0.0000	0.0252	0.0133	0.0000	0.0133	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4400e-003	0.0574	0.0262	5.0000e-005		2.9700e-003	2.9700e-003		2.7300e-003	2.7300e-003	0.0000	4.1642	4.1642	1.3200e-003	0.0000	4.1972
Total	**5.4400e-003**	**0.0574**	**0.0262**	**5.0000e-005**	**0.0252**	**2.9700e-003**	**0.0282**	**0.0133**	**2.7300e-003**	**0.0161**	**0.0000**	**4.1642**	**4.1642**	**1.3200e-003**	**0.0000**	**4.1972**

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	4.5000e-004	0.0156	3.0700e-003	4.0000e-005	8.5000e-004	6.0000e-005	9.1000e-004	2.3000e-004	6.0000e-005	2.9000e-004	0.0000	3.8532	3.8532	1.8000e-004	0.0000	3.8577

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	5.0000e-005	4.9000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1229	0.1229	0.0000	0.0000	0.1230
Total	**5.1000e-004**	**0.0156**	**3.5600e-003**	**4.0000e-005**	**9.9000e-004**	**6.0000e-005**	**1.0500e-003**	**2.7000e-004**	**6.0000e-005**	**3.3000e-004**	**0.0000**	**3.9761**	**3.9761**	**1.8000e-004**	**0.0000**	**3.9807**

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	2.0700e-003	0.0212	0.0243	4.0000e-005		1.1400e-003	1.1400e-003		1.0500e-003	1.0500e-003	0.0000	3.3175	3.3175	1.0500e-003	0.0000	3.3438
Total	**2.0700e-003**	**0.0212**	**0.0243**	**4.0000e-005**		**1.1400e-003**	**1.1400e-003**		**1.0500e-003**	**1.0500e-003**	**0.0000**	**3.3175**	**3.3175**	**1.0500e-003**	**0.0000**	**3.3438**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	7.0000e-005	7.0000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1755	0.1755	0.0000	0.0000	0.1756
Total	**9.0000e-005**	**7.0000e-005**	**7.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1755**	**0.1755**	**0.0000**	**0.0000**	**0.1756**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5597					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0169	0.1286	0.1418	2.3000e-004		8.0500e-003	8.0500e-003		8.0100e-003	8.0100e-003	0.0000	19.6458	19.6458	2.7500e-003	0.0000	19.7147
Total	**0.5765**	**0.1286**	**0.1418**	**2.3000e-004**		**8.0500e-003**	**8.0500e-003**		**8.0100e-003**	**8.0100e-003**	**0.0000**	**19.6458**	**19.6458**	**2.7500e-003**	**0.0000**	**19.7147**

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	0.0121	9.0300e-003	0.0933	2.6000e-004	0.0265	1.7000e-004	0.0267	7.0500e-003	1.6000e-004	7.2100e-003	0.0000	23.4496	23.4496	6.4000e-004	0.0000	23.4655
Total	**0.0121**	**9.0300e-003**	**0.0933**	**2.6000e-004**	**0.0265**	**1.7000e-004**	**0.0267**	**7.0500e-003**	**1.6000e-004**	**7.2100e-003**	**0.0000**	**23.4496**	**23.4496**	**6.4000e-004**	**0.0000**	**23.4655**

3.6 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	0.8780					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0242	0.1860	0.2217	3.6000e-004		0.0109	0.0109		0.0108	0.0108	0.0000	30.6606	30.6606	4.1600e-003	0.0000	30.7645
Total	**0.9022**	**0.1860**	**0.2217**	**3.6000e-004**		**0.0109**	**0.0109**		**0.0108**	**0.0108**	**0.0000**	**30.6606**	**30.6606**	**4.1600e-003**	**0.0000**	**30.7645**

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	0.0174	0.0125	0.1311	3.9000e-004	0.0416	2.7000e-004	0.0418	0.0111	2.5000e-004	0.0113	0.0000	35.6398	35.6398	8.7000e-004	0.0000	35.6617
Total	**0.0174**	**0.0125**	**0.1311**	**3.9000e-004**	**0.0416**	**2.7000e-004**	**0.0418**	**0.0111**	**2.5000e-004**	**0.0113**	**0.0000**	**35.6398**	**35.6398**	**8.7000e-004**	**0.0000**	**35.6617**

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

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

Category	tons/yr										MT/yr					
Archit. Coating	0.0369					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2000e-004	7.1200e-003	9.2500e-003	1.0000e-005		3.9000e-004	3.9000e-004		3.8000e-004	3.8000e-004	0.0000	1.2873	1.2873	1.7000e-004	0.0000	1.2914
Total	**0.0378**	**7.1200e-003**	**9.2500e-003**	**1.0000e-005**		**3.9000e-004**	**3.9000e-004**		**3.8000e-004**	**3.8000e-004**	**0.0000**	**1.2873**	**1.2873**	**1.7000e-004**	**0.0000**	**1.2914**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8000e-004	4.7000e-004	5.0300e-003	2.0000e-005	1.7400e-003	1.0000e-005	1.7600e-003	4.6000e-004	1.0000e-005	4.7000e-004	0.0000	1.4444	1.4444	3.0000e-005	0.0000	1.4452
Total	**6.8000e-004**	**4.7000e-004**	**5.0300e-003**	**2.0000e-005**	**1.7400e-003**	**1.0000e-005**	**1.7600e-003**	**4.6000e-004**	**1.0000e-005**	**4.7000e-004**	**0.0000**	**1.4444**	**1.4444**	**3.0000e-005**	**0.0000**	**1.4452**

3.7 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.7300e-003	0.0419	0.0393	5.0000e-005		2.9800e-003	2.9800e-003		2.7900e-003	2.7900e-003	0.0000	4.4776	4.4776	1.2500e-003	0.0000	4.5090

Total	**5.7300e-003**	**0.0419**	**0.0393**	**5.0000e-005**		**2.9800e-003**	**2.9800e-003**		**2.7900e-003**	**2.7900e-003**	**0.0000**	**4.4776**	**4.4776**	**1.2500e-003**	**0.0000**	**4.5090**

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	7.7400e-003	0.1993	0.0535	4.3000e-004	0.0104	1.4300e-003	0.0118	3.0000e-003	1.3700e-003	4.3700e-003	0.0000	41.5227	41.5227	2.0600e-003	0.0000	41.5742
Worker	0.0277	0.0206	0.2130	5.9000e-004	0.0605	4.0000e-004	0.0609	0.0161	3.7000e-004	0.0165	0.0000	53.5198	53.5198	1.4600e-003	0.0000	53.5562
Total	**0.0354**	**0.2200**	**0.2665**	**1.0200e-003**	**0.0708**	**1.8300e-003**	**0.0727**	**0.0191**	**1.7400e-003**	**0.0208**	**0.0000**	**95.0425**	**95.0425**	**3.5200e-003**	**0.0000**	**95.1305**

3.7 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.5300e-003	0.0641	0.0645	9.0000e-005		4.3000e-003	4.3000e-003		4.0200e-003	4.0200e-003	0.0000	7.3202	7.3202	2.0500e-003	0.0000	7.3714
Total	**8.5300e-003**	**0.0641**	**0.0645**	**9.0000e-005**		**4.3000e-003**	**4.3000e-003**		**4.0200e-003**	**4.0200e-003**	**0.0000**	**7.3202**	**7.3202**	**2.0500e-003**	**0.0000**	**7.3714**

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	0.0104	0.2988	0.0796	7.2000e-004	0.0173	1.4800e-003	0.0187	4.9900e-003	1.4200e-003	6.4100e-003	0.0000	68.6026	68.6026	3.1500e-003	0.0000	68.6812
Worker	0.0421	0.0303	0.3171	9.5000e-004	0.1005	6.5000e-004	0.1012	0.0267	6.0000e-004	0.0273	0.0000	86.1885	86.1885	2.1100e-003	0.0000	86.2414
Total	**0.0525**	**0.3290**	**0.3967**	**1.6700e-003**	**0.1178**	**2.1300e-003**	**0.1199**	**0.0317**	**2.0200e-003**	**0.0337**	**0.0000**	**154.7911**	**154.7911**	**5.2600e-003**	**0.0000**	**154.9226**

3.8 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.2700e-003	0.0319	0.0354	5.0000e-005		1.7500e-003	1.7500e-003		1.6200e-003	1.6200e-003	0.0000	4.5882	4.5882	1.4200e-003	0.0000	4.6238
Paving	1.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.3900e-003**	**0.0319**	**0.0354**	**5.0000e-005**		**1.7500e-003**	**1.7500e-003**		**1.6200e-003**	**1.6200e-003**	**0.0000**	**4.5882**	**4.5882**	**1.4200e-003**	**0.0000**	**4.6238**

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	3.0000e-005	1.0800e-003	2.1000e-004	0.0000	4.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.2349	0.2349	1.0000e-005	0.0000	0.2353
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	3.5000e-004	3.7200e-003	1.0000e-005	1.2900e-003	1.0000e-005	1.3000e-003	3.4000e-004	1.0000e-005	3.5000e-004	0.0000	1.0669	1.0669	2.0000e-005	0.0000	1.0675
Total	**5.3000e-004**	**1.4300e-003**	**3.9300e-003**	**1.0000e-005**	**1.3300e-003**	**1.0000e-005**	**1.3500e-003**	**3.5000e-004**	**1.0000e-005**	**3.6000e-004**	**0.0000**	**1.3018**	**1.3018**	**3.0000e-005**	**0.0000**	**1.3028**

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	0.2423	1.0267	2.8152	9.7300e-003	0.8973	8.2600e-003	0.9055	0.2402	7.7200e-003	0.2479	0.0000	890.9296	890.9296	0.0301	0.0000	891.6823
Unmitigated	0.2423	1.0267	2.8152	9.7300e-003	0.8973	8.2600e-003	0.9055	0.2402	7.7200e-003	0.2479	0.0000	890.9296	890.9296	0.0301	0.0000	891.6823

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT

Apartments Mid Rise	1,069.14	1,025.88	941.42	2,412,880	2,412,880
Enclosed Parking with Elevator	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	1,069.14	1,025.88	941.42	2,412,880	2,412,880

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740
Parking Lot	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740
Apartments Mid Rise	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740

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	210.5953	210.5953	0.0211	4.3600e-003	212.4202
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	210.5953	210.5953	0.0211	4.3600e-003	212.4202

NaturalGas Mitigated	0.0123	0.1051	0.0447	6.7000e-004		8.4900e-003	8.4900e-003		8.4900e-003	8.4900e-003	0.0000	121.6817	121.6817	2.3300e-003	2.2300e-003	122.4048
NaturalGas Unmitigated	0.0123	0.1051	0.0447	6.7000e-004		8.4900e-003	8.4900e-003		8.4900e-003	8.4900e-003	0.0000	121.6817	121.6817	2.3300e-003	2.2300e-003	122.4048

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					
Apartments Mid Rise	2.28023e+006	0.0123	0.1051	0.0447	6.7000e-004		8.4900e-003	8.4900e-003		8.4900e-003	8.4900e-003	0.0000	121.6817	121.6817	2.3300e-003	2.2300e-003	122.4048
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0123**	**0.1051**	**0.0447**	**6.7000e-004**		**8.4900e-003**	**8.4900e-003**		**8.4900e-003**	**8.4900e-003**	**0.0000**	**121.6817**	**121.6817**	**2.3300e-003**	**2.2300e-003**	**122.4048**

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					
Apartments Mid Rise	2.28023e+006	0.0123	0.1051	0.0447	6.7000e-004		8.4900e-003	8.4900e-003		8.4900e-003	8.4900e-003	0.0000	121.6817	121.6817	2.3300e-003	2.2300e-003	122.4048
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0123**	**0.1051**	**0.0447**	**6.7000e-004**		**8.4900e-003**	**8.4900e-003**		**8.4900e-003**	**8.4900e-003**	**0.0000**	**121.6817**	**121.6817**	**2.3300e-003**	**2.2300e-003**	**122.4048**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	908660	119.5267	0.0120	2.4700e-003	120.5625
Enclosed Parking with Elevator	677707	89.1468	8.9100e-003	1.8400e-003	89.9193
Parking Lot	14609.8	1.9218	1.9000e-004	4.0000e-005	1.9385
Total		**210.5953**	**0.0211**	**4.3500e-003**	**212.4202**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	908660	119.5267	0.0120	2.4700e-003	120.5625
Enclosed Parking with Elevator	677707	89.1468	8.9100e-003	1.8400e-003	89.9193
Parking Lot	14609.8	1.9218	1.9000e-004	4.0000e-005	1.9385
Total		**210.5953**	**0.0211**	**4.3500e-003**	**212.4202**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.0069	0.0248	1.5368	1.3000e-004		9.0400e-003	9.0400e-003		9.0400e-003	9.0400e-003	0.0000	10.7328	10.7328	2.5800e-003	1.5000e-004	10.8423
Unmitigated	1.0069	0.0248	1.5368	1.3000e-004		9.0400e-003	9.0400e-003		9.0400e-003	9.0400e-003	0.0000	10.7328	10.7328	2.5800e-003	1.5000e-004	10.8423

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	0.1475					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8121					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	8.3000e-004	7.1100e-003	3.0200e-003	5.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004	0.0000	8.2294	8.2294	1.6000e-004	1.5000e-004	8.2783
Landscaping	0.0465	0.0177	1.5337	8.0000e-005		8.4700e-003	8.4700e-003		8.4700e-003	8.4700e-003	0.0000	2.5034	2.5034	2.4200e-003	0.0000	2.5640
Total	**1.0069**	**0.0248**	**1.5367**	**1.3000e-004**		**9.0400e-003**	**9.0400e-003**		**9.0400e-003**	**9.0400e-003**	**0.0000**	**10.7328**	**10.7328**	**2.5800e-003**	**1.5000e-004**	**10.8423**

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	0.1475					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8121					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	8.3000e-004	7.1100e-003	3.0200e-003	5.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004	0.0000	8.2294	8.2294	1.6000e-004	1.5000e-004	8.2783
Landscaping	0.0465	0.0177	1.5337	8.0000e-005		8.4700e-003	8.4700e-003		8.4700e-003	8.4700e-003	0.0000	2.5034	2.5034	2.4200e-003	0.0000	2.5640
Total	**1.0069**	**0.0248**	**1.5367**	**1.3000e-004**		**9.0400e-003**	**9.0400e-003**		**9.0400e-003**	**9.0400e-003**	**0.0000**	**10.7328**	**10.7328**	**2.5800e-003**	**1.5000e-004**	**10.8423**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	17.7070	0.4387	0.0106	31.8346
Unmitigated	17.7070	0.4387	0.0106	31.8346

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	13.4217 / 8.46152	17.7070	0.4387	0.0106	31.8346
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**17.7070**	**0.4387**	**0.0106**	**31.8346**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	13.4217 / 8.46152	17.7070	0.4387	0.0106	31.8346
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**17.7070**	**0.4387**	**0.0106**	**31.8346**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	19.2354	1.1368	0.0000	47.6550
Unmitigated	19.2354	1.1368	0.0000	47.6550

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	94.76	19.2354	1.1368	0.0000	47.6550
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**19.2354**	**1.1368**	**0.0000**	**47.6550**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	94.76	19.2354	1.1368	0.0000	47.6550

Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**19.2354**	**1.1368**	**0.0000**	**47.6550**

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

Race Street MU - San Jose - Santa Clara County, Annual

Race Street MU - San Jose, Construction TAC

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	262.00	Space	0.00	100,550.00	0
Parking Lot	10.00	Space	0.09	16,602.00	0
Apartments Mid Rise	206.00	Dwelling Unit	2.21	206,000.00	589
Strip Mall	8.50	1000sqft	0.00	8,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2022
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

Land Use - Land uses from traffic report, sf from construction spreadsheet, 2.3ac

Construction Phase - anticipated phasing schedule provided by applicant

Off-road Equipment - Proposed equipment list provided by applicant

Off-road Equipment - Proposed equipment list provided by applicant

Off-road Equipment - Proposed equipment list provided by applicant

Off-road Equipment - Proposed equipment list provided by applicant

Off-road Equipment - Proposed equipment list provided by applicant

Off-road Equipment - Proposed equipment list provided by applicant

Off-road Equipment - Proposed equipment list provided by applicant

Trips and VMT - Demo: 1,600 tons pavement = 160 trips (@ 20 tons/truck) + 232 trips (bldg demo) = 392 trips. Paving: 100cy asphalt = 14 trips (@ 16cy/truck). 0.5mi trip lengths for TAC.

Demolition - 51,075sf bldg demo

Grading - 800cy soil export

Vehicle Trips - Trip rates from project traffic report. Retail pass-by set to zero (accounted for in trip rate).

Woodstoves - no woodstoves, no wood fireplaces, possible gas-powered fireplaces.

Energy Use - default

Construction Off-road Equipment Mitigation - Tier 2 engines for equip > 25hp, Tier 4 portable (aerial lifts, air compressors, concrete saws, forklifts, and welders). BAAQMD BMPS.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
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	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim

tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	10.00	440.00
tblConstructionPhase	NumDays	220.00	205.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	6.00	7.00
tblConstructionPhase	NumDays	10.00	25.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	30.90	65.92
tblFireplaces	NumberWood	35.02	0.00
tblGrading	AcresOfGrading	0.00	2.30
tblGrading	MaterialExported	0.00	800.00
tblLandUse	BuildingSpaceSquareFeet	104,800.00	100,550.00
tblLandUse	BuildingSpaceSquareFeet	4,000.00	16,602.00
tblLandUse	LandUseSquareFeet	104,800.00	100,550.00
tblLandUse	LandUseSquareFeet	4,000.00	16,602.00
tblLandUse	LotAcreage	2.36	0.00
tblLandUse	LotAcreage	5.42	2.21
tblLandUse	LotAcreage	0.20	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	UsageHours	6.00	2.10
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	1.60
tblOffRoadEquipment	UsageHours	7.00	3.10
tblOffRoadEquipment	UsageHours	8.00	1.40
tblOffRoadEquipment	UsageHours	8.00	1.40
tblOffRoadEquipment	UsageHours	8.00	3.00
tblOffRoadEquipment	UsageHours	8.00	4.80
tblOffRoadEquipment	UsageHours	8.00	9.10
tblOffRoadEquipment	UsageHours	6.00	1.00
tblOffRoadEquipment	UsageHours	8.00	6.40
tblOffRoadEquipment	UsageHours	7.00	9.10
tblOffRoadEquipment	UsageHours	8.00	3.60
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	0.60
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblProjectCharacteristics	OperationalYear	2018	2022
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripNumber	232.00	392.00
tblTripsAndVMT	HaulingTripNumber	0.00	14.00

tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	45.00	60.00
tblVehicleTrips	ST_TR	6.39	4.98
tblVehicleTrips	ST_TR	42.04	24.38
tblVehicleTrips	SU_TR	5.86	4.57
tblVehicleTrips	SU_TR	20.43	11.85
tblVehicleTrips	WD_TR	6.65	5.19
tblVehicleTrips	WD_TR	44.32	25.53
tblWoodstoves	NumberCatalytic	4.12	0.00
tblWoodstoves	NumberNoncatalytic	4.12	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	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	0.6275	0.4388	0.3657	6.2000e-004	0.0645	0.0181	0.0826	0.0235	0.0173	0.0408	0.0000	55.3111	55.3111	9.7400e-003	0.0000	55.5547
2020	0.9598	0.4313	0.4360	7.3000e-004	8.1000e-003	0.0155	0.0236	2.2100e-003	0.0152	0.0174	0.0000	65.2748	65.2748	8.7800e-003	0.0000	65.4944
2021	0.0426	0.0398	0.0467	7.0000e-005	1.5000e-004	2.1400e-003	2.2900e-003	4.0000e-005	2.0100e-003	2.0500e-003	0.0000	6.1417	6.1417	1.6100e-003	0.0000	6.1818
Maximum	**0.9598**	**0.4388**	**0.4360**	**7.3000e-004**	**0.0645**	**0.0181**	**0.0826**	**0.0235**	**0.0173**	**0.0408**	**0.0000**	**65.2748**	**65.2748**	**9.7400e-003**	**0.0000**	**65.4944**

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	0.6029	0.3783	0.3755	6.2000e-004	0.0185	5.9100e-003	0.0244	6.3600e-003	5.8900e-003	0.0123	0.0000	55.3110	55.3110	9.7400e-003	0.0000	55.5546
2020	0.9366	0.3814	0.4424	7.3000e-004	8.1000e-003	4.0900e-003	0.0122	2.2100e-003	4.0600e-003	6.2800e-003	0.0000	65.2748	65.2748	8.7800e-003	0.0000	65.4943
2021	0.0413	0.0544	0.0507	7.0000e-005	1.5000e-004	1.8600e-003	2.0100e-003	4.0000e-005	1.8600e-003	1.9000e-003	0.0000	6.1416	6.1416	1.6100e-003	0.0000	6.1818
Maximum	**0.9366**	**0.3814**	**0.4424**	**7.3000e-004**	**0.0185**	**5.9100e-003**	**0.0244**	**6.3600e-003**	**5.8900e-003**	**0.0123**	**0.0000**	**65.2748**	**65.2748**	**9.7400e-003**	**0.0000**	**65.4943**

	ROG	NOx	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	**3.02**	**10.53**	**-2.39**	**0.00**	**63.29**	**66.80**	**64.46**	**66.54**	**65.72**	**66.06**	**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	**3-11-2019**	**6-10-2019**	0.2410	0.2138

2	**6-11-2019**	**9-10-2019**	0.2864	0.2670
3	**9-11-2019**	**12-10-2019**	0.4200	0.3911
4	**12-11-2019**	**3-10-2020**	0.4170	0.3936
5	**3-11-2020**	**6-10-2020**	0.4211	0.3992
6	**6-11-2020**	**9-10-2020**	0.3091	0.2928
7	**9-11-2020**	**12-10-2020**	0.2784	0.2636
8	**12-11-2020**	**3-10-2021**	0.1464	0.1553
		Highest	0.4211	0.3992

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	3/11/2019	3/17/2019	5	5	
2	Site Preparation	Site Preparation	3/18/2019	3/20/2019	5	3	
3	Grading	Grading	3/21/2019	3/29/2019	5	7	
4	Trenching	Trenching	4/1/2019	4/12/2019	5	10	
5	Architectural Coating	Architectural Coating	5/13/2019	1/16/2021	5	440	
6	Building Construction	Building Construction	9/16/2019	6/28/2020	5	205	
7	Paving	Paving	1/18/2021	2/19/2021	5	25	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 2.3

Acres of Paving: 0.09

Residential Indoor: 417,150; Residential Outdoor: 139,050; Non-Residential Indoor: 12,750; Non-Residential Outdoor: 4,250; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Aerial Lifts	1	3.00	63	0.31
Architectural Coating	Air Compressors	2	2.10	78	0.48

Building Construction	Cranes	0	8.00	231	0.29
Building Construction	Forklifts	1	3.10	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	1.00	97	0.37
Building Construction	Welders	2	0.60	46	0.45
Demolition	Concrete/Industrial Saws	1	1.60	81	0.73
Demolition	Excavators	1	4.80	158	0.38
Demolition	Rubber Tired Dozers	1	4.80	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	6.40	97	0.37
Grading	Graders	0	8.00	187	0.41
Grading	Rubber Tired Dozers	1	9.10	247	0.40
Grading	Tractors/Loaders/Backhoes	1	9.10	97	0.37
Paving	Cement and Mortar Mixers	1	4.00	9	0.56
Paving	Pavers	1	1.40	130	0.42
Paving	Paving Equipment	1	1.40	132	0.36
Paving	Rollers	1	3.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	3.60	97	0.37
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Scrapers	0	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Excavators	1	8.80	158	0.38
Trenching	Tractors/Loaders/Backhoes	1	4.40	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
Architectural Coating	3	40.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Building Construction	4	200.00	43.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Demolition	4	10.00	0.00	392.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT

Grading	2	5.00	0.00	100.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	14.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Trenching	2	5.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved 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					0.0251	0.0000	0.0251	3.8100e-003	0.0000	3.8100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7900e-003	0.0286	0.0178	3.0000e-005		1.5000e-003	1.5000e-003		1.3900e-003	1.3900e-003	0.0000	2.6728	2.6728	7.8000e-004	0.0000	2.6923
Total	**2.7900e-003**	**0.0286**	**0.0178**	**3.0000e-005**	**0.0251**	**1.5000e-003**	**0.0266**	**3.8100e-003**	**1.3900e-003**	**5.2000e-003**	**0.0000**	**2.6728**	**2.6728**	**7.8000e-004**	**0.0000**	**2.6923**

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	4.4000e-004	0.0199	3.2800e-003	2.0000e-005	9.0000e-005	2.0000e-005	1.1000e-004	2.0000e-005	2.0000e-005	4.0000e-005	0.0000	2.2086	2.2086	2.9000e-004	0.0000	2.2157
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	1.0000e-005	1.6000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0131	0.0131	0.0000	0.0000	0.0131
Total	**4.7000e-004**	**0.0200**	**3.4400e-003**	**2.0000e-005**	**1.0000e-004**	**2.0000e-005**	**1.2000e-004**	**2.0000e-005**	**2.0000e-005**	**4.0000e-005**	**0.0000**	**2.2217**	**2.2217**	**2.9000e-004**	**0.0000**	**2.2288**

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					5.6600e-003	0.0000	5.6600e-003	8.6000e-004	0.0000	8.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	0.0246	0.0193	3.0000e-005		6.8000e-004	6.8000e-004		6.8000e-004	6.8000e-004	0.0000	2.6728	2.6728	7.8000e-004	0.0000	2.6923
Total	**9.6000e-004**	**0.0246**	**0.0193**	**3.0000e-005**	**5.6600e-003**	**6.8000e-004**	**6.3400e-003**	**8.6000e-004**	**6.8000e-004**	**1.5400e-003**	**0.0000**	**2.6728**	**2.6728**	**7.8000e-004**	**0.0000**	**2.6923**

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	4.4000e-004	0.0199	3.2800e-003	2.0000e-005	9.0000e-005	2.0000e-005	1.1000e-004	2.0000e-005	2.0000e-005	4.0000e-005	0.0000	2.2086	2.2086	2.9000e-004	0.0000	2.2157
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Worker	3.0000e-005	1.0000e-005	1.6000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0131	0.0131	0.0000	0.0000	0.0131
Total	**4.7000e-004**	**0.0200**	**3.4400e-003**	**2.0000e-005**	**1.0000e-004**	**2.0000e-005**	**1.2000e-004**	**2.0000e-005**	**2.0000e-005**	**4.0000e-005**	**0.0000**	**2.2217**	**2.2217**	**2.9000e-004**	**0.0000**	**2.2288**

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					9.0300e-003	0.0000	9.0300e-003	4.9700e-003	0.0000	4.9700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0216	9.8800e-003	2.0000e-005		1.1200e-003	1.1200e-003		1.0300e-003	1.0300e-003	0.0000	1.5689	1.5689	5.0000e-004	0.0000	1.5814
Total	**2.0500e-003**	**0.0216**	**9.8800e-003**	**2.0000e-005**	**9.0300e-003**	**1.1200e-003**	**0.0102**	**4.9700e-003**	**1.0300e-003**	**6.0000e-003**	**0.0000**	**1.5689**	**1.5689**	**5.0000e-004**	**0.0000**	**1.5814**

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	0.0000	5.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.9300e-003	3.9300e-003	0.0000	0.0000	3.9300e-003
Total	**1.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**3.9300e-003**	**3.9300e-003**	**0.0000**	**0.0000**	**3.9300e-003**

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					2.0300e-003	0.0000	2.0300e-003	1.1200e-003	0.0000	1.1200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.3000e-004	0.0154	0.0103	2.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	1.5689	1.5689	5.0000e-004	0.0000	1.5813
Total	**5.3000e-004**	**0.0154**	**0.0103**	**2.0000e-005**	**2.0300e-003**	**4.1000e-004**	**2.4400e-003**	**1.1200e-003**	**4.1000e-004**	**1.5300e-003**	**0.0000**	**1.5689**	**1.5689**	**5.0000e-004**	**0.0000**	**1.5813**

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	0.0000	5.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.9300e-003	3.9300e-003	0.0000	0.0000	3.9300e-003
Total	**1.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**3.9300e-003**	**3.9300e-003**	**0.0000**	**0.0000**	**3.9300e-003**

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					0.0252	0.0000	0.0252	0.0133	0.0000	0.0133	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4400e-003	0.0574	0.0262	5.0000e-005		2.9700e-003	2.9700e-003		2.7300e-003	2.7300e-003	0.0000	4.1642	4.1642	1.3200e-003	0.0000	4.1972
Total	**5.4400e-003**	**0.0574**	**0.0262**	**5.0000e-005**	**0.0252**	**2.9700e-003**	**0.0282**	**0.0133**	**2.7300e-003**	**0.0161**	**0.0000**	**4.1642**	**4.1642**	**1.3200e-003**	**0.0000**	**4.1972**

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	1.1000e-004	5.0900e-003	8.4000e-004	1.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	0.0000	0.5634	0.5634	7.0000e-005	0.0000	0.5652
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.1000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	9.1600e-003	9.1600e-003	0.0000	0.0000	9.1700e-003
Total	**1.3000e-004**	**5.1000e-003**	**9.5000e-004**	**1.0000e-005**	**3.0000e-005**	**1.0000e-005**	**4.0000e-005**	**1.0000e-005**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**0.5726**	**0.5726**	**7.0000e-005**	**0.0000**	**0.5744**

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					5.6800e-003	0.0000	5.6800e-003	3.0000e-003	0.0000	3.0000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4100e-003	0.0408	0.0274	5.0000e-005		1.0900e-003	1.0900e-003		1.0900e-003	1.0900e-003	0.0000	4.1642	4.1642	1.3200e-003	0.0000	4.1972

Total	**1.4100e-003**	**0.0408**	**0.0274**	**5.0000e-005**	**5.6800e-003**	**1.0900e-003**	**6.7700e-003**	**3.0000e-003**	**1.0900e-003**	**4.0900e-003**	**0.0000**	**4.1642**	**4.1642**	**1.3200e-003**	**0.0000**	**4.1972**

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	1.1000e-004	5.0900e-003	8.4000e-004	1.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	0.0000	0.5634	0.5634	7.0000e-005	0.0000	0.5652
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.1000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	9.1600e-003	9.1600e-003	0.0000	0.0000	9.1700e-003
Total	**1.3000e-004**	**5.1000e-003**	**9.5000e-004**	**1.0000e-005**	**3.0000e-005**	**1.0000e-005**	**4.0000e-005**	**1.0000e-005**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**0.5726**	**0.5726**	**7.0000e-005**	**0.0000**	**0.5744**

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	2.0700e-003	0.0212	0.0243	4.0000e-005		1.1400e-003	1.1400e-003		1.0500e-003	1.0500e-003	0.0000	3.3175	3.3175	1.0500e-003	0.0000	3.3438
Total	**2.0700e-003**	**0.0212**	**0.0243**	**4.0000e-005**		**1.1400e-003**	**1.1400e-003**		**1.0500e-003**	**1.0500e-003**	**0.0000**	**3.3175**	**3.3175**	**1.0500e-003**	**0.0000**	**3.3438**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	1.0000e-005	1.6000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0131	0.0131	0.0000	0.0000	0.0131
Total	**3.0000e-005**	**1.0000e-005**	**1.6000e-004**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0131**	**0.0131**	**0.0000**	**0.0000**	**0.0131**

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	1.5100e-003	0.0326	0.0280	4.0000e-005		1.0800e-003	1.0800e-003		1.0800e-003	1.0800e-003	0.0000	3.3175	3.3175	1.0500e-003	0.0000	3.3438
Total	**1.5100e-003**	**0.0326**	**0.0280**	**4.0000e-005**		**1.0800e-003**	**1.0800e-003**		**1.0800e-003**	**1.0800e-003**	**0.0000**	**3.3175**	**3.3175**	**1.0500e-003**	**0.0000**	**3.3438**

Mitigated Construction Off-Site

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	1.0000e-005	1.6000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0131	0.0131	0.0000	0.0000	0.0131
Total	**3.0000e-005**	**1.0000e-005**	**1.6000e-004**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0131**	**0.0131**	**0.0000**	**0.0000**	**0.0131**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5765					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0169	0.1286	0.1418	2.3000e-004		8.0500e-003	8.0500e-003		8.0100e-003	8.0100e-003	0.0000	19.6458	19.6458	2.7500e-003	0.0000	19.7147
Total	**0.5933**	**0.1286**	**0.1418**	**2.3000e-004**		**8.0500e-003**	**8.0500e-003**		**8.0100e-003**	**8.0100e-003**	**0.0000**	**19.6458**	**19.6458**	**2.7500e-003**	**0.0000**	**19.7147**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6900e-003	1.5800e-003	0.0212	2.0000e-005	1.2600e-003	3.0000e-005	1.2900e-003	3.4000e-004	3.0000e-005	3.6000e-004	0.0000	1.7482	1.7482	1.1000e-004	0.0000	1.7510

Total	**3.6900e-003**	**1.5800e-003**	**0.0212**	**2.0000e-005**	**1.2600e-003**	**3.0000e-005**	**1.2900e-003**	**3.4000e-004**	**3.0000e-005**	**3.6000e-004**	**0.0000**	**1.7482**	**1.7482**	**1.1000e-004**	**0.0000**	**1.7510**

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	0.5765					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.4800e-003	0.0915	0.1470	2.3000e-004		1.4400e-003	1.4400e-003		1.4400e-003	1.4400e-003	0.0000	19.6458	19.6458	2.7500e-003	0.0000	19.7147
Total	**0.5810**	**0.0915**	**0.1470**	**2.3000e-004**		**1.4400e-003**	**1.4400e-003**		**1.4400e-003**	**1.4400e-003**	**0.0000**	**19.6458**	**19.6458**	**2.7500e-003**	**0.0000**	**19.7147**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6900e-003	1.5800e-003	0.0212	2.0000e-005	1.2600e-003	3.0000e-005	1.2900e-003	3.4000e-004	3.0000e-005	3.6000e-004	0.0000	1.7482	1.7482	1.1000e-004	0.0000	1.7510
Total	**3.6900e-003**	**1.5800e-003**	**0.0212**	**2.0000e-005**	**1.2600e-003**	**3.0000e-005**	**1.2900e-003**	**3.4000e-004**	**3.0000e-005**	**3.6000e-004**	**0.0000**	**1.7482**	**1.7482**	**1.1000e-004**	**0.0000**	**1.7510**

3.6 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	0.9044					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0242	0.1860	0.2217	3.6000e-004		0.0109	0.0109		0.0108	0.0108	0.0000	30.6606	30.6606	4.1600e-003	0.0000	30.7645
Total	**0.9286**	**0.1860**	**0.2217**	**3.6000e-004**		**0.0109**	**0.0109**		**0.0108**	**0.0108**	**0.0000**	**30.6606**	**30.6606**	**4.1600e-003**	**0.0000**	**30.7645**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2100e-003	2.1600e-003	0.0294	3.0000e-005	1.9700e-003	4.0000e-005	2.0200e-003	5.3000e-004	4.0000e-005	5.7000e-004	0.0000	2.6602	2.6602	1.5000e-004	0.0000	2.6639
Total	**5.2100e-003**	**2.1600e-003**	**0.0294**	**3.0000e-005**	**1.9700e-003**	**4.0000e-005**	**2.0200e-003**	**5.3000e-004**	**4.0000e-005**	**5.7000e-004**	**0.0000**	**2.6602**	**2.6602**	**1.5000e-004**	**0.0000**	**2.6639**

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	0.9044					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.0300e-003	0.1436	0.2306	3.6000e-004		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	30.6605	30.6605	4.1600e-003	0.0000	30.7644
Total	**0.9115**	**0.1436**	**0.2306**	**3.6000e-004**		**2.2600e-003**	**2.2600e-003**		**2.2600e-003**	**2.2600e-003**	**0.0000**	**30.6605**	**30.6605**	**4.1600e-003**	**0.0000**	**30.7644**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2100e-003	2.1600e-003	0.0294	3.0000e-005	1.9700e-003	4.0000e-005	2.0200e-003	5.3000e-004	4.0000e-005	5.7000e-004	0.0000	2.6602	2.6602	1.5000e-004	0.0000	2.6639
Total	**5.2100e-003**	**2.1600e-003**	**0.0294**	**3.0000e-005**	**1.9700e-003**	**4.0000e-005**	**2.0200e-003**	**5.3000e-004**	**4.0000e-005**	**5.7000e-004**	**0.0000**	**2.6602**	**2.6602**	**1.5000e-004**	**0.0000**	**2.6639**

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0380					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2000e-004	7.1200e-003	9.2500e-003	1.0000e-005		3.9000e-004	3.9000e-004		3.8000e-004	3.8000e-004	0.0000	1.2873	1.2873	1.7000e-004	0.0000	1.2914
Total	**0.0389**	**7.1200e-003**	**9.2500e-003**	**1.0000e-005**		**3.9000e-004**	**3.9000e-004**		**3.8000e-004**	**3.8000e-004**	**0.0000**	**1.2873**	**1.2873**	**1.7000e-004**	**0.0000**	**1.2914**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	8.0000e-005	1.1100e-003	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1080	0.1080	1.0000e-005	0.0000	0.1081
Total	**2.0000e-004**	**8.0000e-005**	**1.1100e-003**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.1080**	**0.1080**	**1.0000e-005**	**0.0000**	**0.1081**

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	0.0380					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-004	6.0300e-003	9.6800e-003	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.2873	1.2873	1.7000e-004	0.0000	1.2914
Total	**0.0383**	**6.0300e-003**	**9.6800e-003**	**1.0000e-005**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**	**0.0000**	**1.2873**	**1.2873**	**1.7000e-004**	**0.0000**	**1.2914**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	8.0000e-005	1.1100e-003	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1080	0.1080	1.0000e-005	0.0000	0.1081
Total	**2.0000e-004**	**8.0000e-005**	**1.1100e-003**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.1080**	**0.1080**	**1.0000e-005**	**0.0000**	**0.1081**

3.7 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.7300e-003	0.0419	0.0393	5.0000e-005		2.9800e-003	2.9800e-003		2.7900e-003	2.7900e-003	0.0000	4.4776	4.4776	1.2500e-003	0.0000	4.5090
Total	**5.7300e-003**	**0.0419**	**0.0393**	**5.0000e-005**		**2.9800e-003**	**2.9800e-003**		**2.7900e-003**	**2.7900e-003**	**0.0000**	**4.4776**	**4.4776**	**1.2500e-003**	**0.0000**	**4.5090**

Unmitigated Construction Off-Site

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

Vendor	3.2500e-003	0.1092	0.0318	1.1000e-004	7.9000e-004	1.9000e-004	9.7000e-004	2.3000e-004	1.8000e-004	4.1000e-004	0.0000	10.8744	10.8744	1.3700e-003	0.0000	10.9086
Worker	8.5000e-003	3.6400e-003	0.0488	5.0000e-005	2.9000e-003	6.0000e-005	2.9600e-003	7.8000e-004	6.0000e-005	8.4000e-004	0.0000	4.0303	4.0303	2.5000e-004	0.0000	4.0366
Total	**0.0118**	**0.1128**	**0.0806**	**1.6000e-004**	**3.6900e-003**	**2.5000e-004**	**3.9300e-003**	**1.0100e-003**	**2.4000e-004**	**1.2500e-003**	**0.0000**	**14.9047**	**14.9047**	**1.6200e-003**	**0.0000**	**14.9452**

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	1.4700e-003	0.0341	0.0372	5.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004	0.0000	4.4776	4.4776	1.2500e-003	0.0000	4.5090
Total	**1.4700e-003**	**0.0341**	**0.0372**	**5.0000e-005**		**8.9000e-004**	**8.9000e-004**		**8.9000e-004**	**8.9000e-004**	**0.0000**	**4.4776**	**4.4776**	**1.2500e-003**	**0.0000**	**4.5090**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.2500e-003	0.1092	0.0318	1.1000e-004	7.9000e-004	1.9000e-004	9.7000e-004	2.3000e-004	1.8000e-004	4.1000e-004	0.0000	10.8744	10.8744	1.3700e-003	0.0000	10.9086
Worker	8.5000e-003	3.6400e-003	0.0488	5.0000e-005	2.9000e-003	6.0000e-005	2.9600e-003	7.8000e-004	6.0000e-005	8.4000e-004	0.0000	4.0303	4.0303	2.5000e-004	0.0000	4.0366
Total	**0.0118**	**0.1128**	**0.0806**	**1.6000e-004**	**3.6900e-003**	**2.5000e-004**	**3.9300e-003**	**1.0100e-003**	**2.4000e-004**	**1.2500e-003**	**0.0000**	**14.9047**	**14.9047**	**1.6200e-003**	**0.0000**	**14.9452**

3.7 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.5300e-003	0.0641	0.0645	9.0000e-005		4.3000e-003	4.3000e-003		4.0200e-003	4.0200e-003	0.0000	7.3202	7.3202	2.0500e-003	0.0000	7.3714
Total	**8.5300e-003**	**0.0641**	**0.0645**	**9.0000e-005**		**4.3000e-003**	**4.3000e-003**		**4.0200e-003**	**4.0200e-003**	**0.0000**	**7.3202**	**7.3202**	**2.0500e-003**	**0.0000**	**7.3714**

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	4.7400e-003	0.1738	0.0485	1.9000e-004	1.3100e-003	2.0000e-004	1.5000e-003	3.8000e-004	1.9000e-004	5.7000e-004	0.0000	18.1356	18.1356	2.0700e-003	0.0000	18.1872
Worker	0.0127	5.2600e-003	0.0719	7.0000e-005	4.8200e-003	1.0000e-004	4.9200e-003	1.3000e-003	1.0000e-004	1.3900e-003	0.0000	6.4983	6.4983	3.6000e-004	0.0000	6.5073
Total	**0.0175**	**0.1791**	**0.1204**	**2.6000e-004**	**6.1300e-003**	**3.0000e-004**	**6.4200e-003**	**1.6800e-003**	**2.9000e-004**	**1.9600e-003**	**0.0000**	**24.6338**	**24.6338**	**2.4300e-003**	**0.0000**	**24.6945**

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	2.4400e-003	0.0567	0.0619	9.0000e-005		1.4800e-003	1.4800e-003		1.4800e-003	1.4800e-003	0.0000	7.3202	7.3202	2.0500e-003	0.0000	7.3714
Total	**2.4400e-003**	**0.0567**	**0.0619**	**9.0000e-005**		**1.4800e-003**	**1.4800e-003**		**1.4800e-003**	**1.4800e-003**	**0.0000**	**7.3202**	**7.3202**	**2.0500e-003**	**0.0000**	**7.3714**

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	4.7400e-003	0.1738	0.0485	1.9000e-004	1.3100e-003	2.0000e-004	1.5000e-003	3.8000e-004	1.9000e-004	5.7000e-004	0.0000	18.1356	18.1356	2.0700e-003	0.0000	18.1872
Worker	0.0127	5.2600e-003	0.0719	7.0000e-005	4.8200e-003	1.0000e-004	4.9200e-003	1.3000e-003	1.0000e-004	1.3900e-003	0.0000	6.4983	6.4983	3.6000e-004	0.0000	6.5073
Total	**0.0175**	**0.1791**	**0.1204**	**2.6000e-004**	**6.1300e-003**	**3.0000e-004**	**6.4200e-003**	**1.6800e-003**	**2.9000e-004**	**1.9600e-003**	**0.0000**	**24.6338**	**24.6338**	**2.4300e-003**	**0.0000**	**24.6945**

3.8 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.2700e-003	0.0319	0.0354	5.0000e-005		1.7500e-003	1.7500e-003		1.6200e-003	1.6200e-003	0.0000	4.5882	4.5882	1.4200e-003	0.0000	4.6238

Paving	1.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.3900e-003**	**0.0319**	**0.0354**	**5.0000e-005**		**1.7500e-003**	**1.7500e-003**		**1.6200e-003**	**1.6200e-003**	**0.0000**	**4.5882**	**4.5882**	**1.4200e-003**	**0.0000**	**4.6238**

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	1.0000e-005	6.6000e-004	1.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0785	0.0785	1.0000e-005	0.0000	0.0787
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	6.0000e-005	8.2000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0797	0.0797	0.0000	0.0000	0.0798
Total	**1.6000e-004**	**7.2000e-004**	**9.3000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.1582**	**0.1582**	**1.0000e-005**	**0.0000**	**0.1585**

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	2.5100e-003	0.0476	0.0390	5.0000e-005		1.7600e-003	1.7600e-003		1.7600e-003	1.7600e-003	0.0000	4.5882	4.5882	1.4200e-003	0.0000	4.6237
Paving	1.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.6300e-003**	**0.0476**	**0.0390**	**5.0000e-005**		**1.7600e-003**	**1.7600e-003**		**1.7600e-003**	**1.7600e-003**	**0.0000**	**4.5882**	**4.5882**	**1.4200e-003**	**0.0000**	**4.6237**

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	1.0000e-005	6.6000e-004	1.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0785	0.0785	1.0000e-005	0.0000	0.0787
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	6.0000e-005	8.2000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0797	0.0797	0.0000	0.0000	0.0798
Total	**1.6000e-004**	**7.2000e-004**	**9.3000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.1582**	**0.1582**	**1.0000e-005**	**0.0000**	**0.1585**

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Race Street MU - San Jose, No Retail - Construction TAC

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	262.00	Space	0.00	100,550.00	0
Parking Lot	10.00	Space	0.09	16,602.00	0
Apartments Mid Rise	206.00	Dwelling Unit	2.21	206,000.00	589

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2022
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

Land Use - Land uses from traffic report, sf from construction spreadsheet, 2.3ac

Construction Phase - anticipated phasing schedule provided by applicant

Off-road Equipment - Proposed equipment list provided by applicant

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Trips and VMT - Demo: 1,600 tons pavement = 160 trips (@ 20 tons/truck) + 232 trips (bldg demo) = 392 trips. Paving: 100cy asphalt = 14 trips (@ 16cy/truck). 0.5mi trip lengths for TAC.

Demolition - 51,075sf bldg demo

Grading - 800cy soil export

Vehicle Trips - Trip rates from project traffic report. Retail pass-by set to zero (accounted for in trip rate).

Woodstoves - no woodstoves, no wood fireplaces, possible gas-powered fireplaces.

Energy Use - default

Construction Off-road Equipment Mitigation - Tier 2 engines for equip > 25hp, Tier 4 portable (aerial lifts, air compressors, concrete saws, forklifts, and welders). BAAQMD BMPS.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
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	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 2

tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	10.00	440.00
tblConstructionPhase	NumDays	220.00	205.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	6.00	7.00
tblConstructionPhase	NumDays	10.00	25.00
tblGrading	AcresOfGrading	0.00	2.30
tblGrading	MaterialExported	0.00	800.00
tblLandUse	BuildingSpaceSquareFeet	104,800.00	100,550.00
tblLandUse	BuildingSpaceSquareFeet	4,000.00	16,602.00
tblLandUse	LandUseSquareFeet	104,800.00	100,550.00
tblLandUse	LandUseSquareFeet	4,000.00	16,602.00
tblLandUse	LotAcreage	2.36	0.00
tblLandUse	LotAcreage	5.42	2.21
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	UsageHours	6.00	2.10

tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	1.60
tblOffRoadEquipment	UsageHours	7.00	3.10
tblOffRoadEquipment	UsageHours	8.00	1.40
tblOffRoadEquipment	UsageHours	8.00	1.40
tblOffRoadEquipment	UsageHours	8.00	3.00
tblOffRoadEquipment	UsageHours	8.00	4.80
tblOffRoadEquipment	UsageHours	8.00	9.10
tblOffRoadEquipment	UsageHours	6.00	1.00
tblOffRoadEquipment	UsageHours	8.00	6.40
tblOffRoadEquipment	UsageHours	7.00	9.10
tblOffRoadEquipment	UsageHours	8.00	3.60
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	0.60
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblProjectCharacteristics	OperationalYear	2018	2022
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripNumber	232.00	392.00
tblTripsAndVMT	HaulingTripNumber	0.00	14.00
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50

tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50

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	0.6104	0.4337	0.3637	6.1000e-004	0.0644	0.0181	0.0825	0.0235	0.0173	0.0407	0.0000	54.7650	54.7650	9.6800e-003	0.0000	55.0069
2020	0.9331	0.4232	0.4330	7.2000e-004	7.9900e-003	0.0155	0.0235	2.1800e-003	0.0152	0.0173	0.0000	64.3663	64.3663	8.6800e-003	0.0000	64.5834
2021	0.0415	0.0398	0.0467	7.0000e-005	1.5000e-004	2.1400e-003	2.2900e-003	4.0000e-005	2.0100e-003	2.0500e-003	0.0000	6.1417	6.1417	1.6100e-003	0.0000	6.1818
Maximum	**0.9331**	**0.4337**	**0.4330**	**7.2000e-004**	**0.0644**	**0.0181**	**0.0825**	**0.0235**	**0.0173**	**0.0407**	**0.0000**	**64.3663**	**64.3663**	**9.6800e-003**	**0.0000**	**64.5834**

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	0.5859	0.3732	0.3736	6.1000e-004	0.0184	5.9000e-003	0.0243	6.3400e-003	5.8800e-003	0.0122	0.0000	54.7650	54.7650	9.6800e-003	0.0000	55.0069
2020	0.9098	0.3733	0.4394	7.2000e-004	7.9900e-003	4.0700e-003	0.0121	2.1800e-003	4.0500e-003	6.2400e-003	0.0000	64.3663	64.3663	8.6800e-003	0.0000	64.5833
2021	0.0402	0.0544	0.0507	7.0000e-005	1.5000e-004	1.8600e-003	2.0100e-003	4.0000e-005	1.8600e-003	1.9000e-003	0.0000	6.1416	6.1416	1.6100e-003	0.0000	6.1818
Maximum	**0.9098**	**0.3733**	**0.4394**	**7.2000e-004**	**0.0184**	**5.9000e-003**	**0.0243**	**6.3400e-003**	**5.8800e-003**	**0.0122**	**0.0000**	**64.3663**	**64.3663**	**9.6800e-003**	**0.0000**	**64.5833**

	ROG	NOx	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	**3.10**	**10.68**	**-2.41**	**0.00**	**63.46**	**66.86**	**64.57**	**66.67**	**65.76**	**66.13**	**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	**3-11-2019**	**6-10-2019**	0.2389	0.2117
2	**6-11-2019**	**9-10-2019**	0.2798	0.2604
3	**9-11-2019**	**12-10-2019**	0.4092	0.3803
4	**12-11-2019**	**3-10-2020**	0.4062	0.3827
5	**3-11-2020**	**6-10-2020**	0.4101	0.3882
6	**6-11-2020**	**9-10-2020**	0.3016	0.2853
7	**9-11-2020**	**12-10-2020**	0.2719	0.2571
8	**12-11-2020**	**3-10-2021**	0.1438	0.1526
		Highest	0.4101	0.3882

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	3/11/2019	3/17/2019	5	5	
2	Site Preparation	Site Preparation	3/18/2019	3/20/2019	5	3	
3	Grading	Grading	3/21/2019	3/29/2019	5	7	
4	Trenching	Trenching	4/1/2019	4/12/2019	5	10	

5	Architectural Coating	Architectural Coating	5/13/2019	1/16/2021	5	440	
6	Building Construction	Building Construction	9/16/2019	6/28/2020	5	205	
7	Paving	Paving	1/18/2021	2/19/2021	5	25	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 2.3

Acres of Paving: 0.09

Residential Indoor: 417,150; Residential Outdoor: 139,050; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Aerial Lifts	1	3.00	63	0.31
Architectural Coating	Air Compressors	2	2.10	78	0.48
Building Construction	Cranes	0	8.00	231	0.29
Building Construction	Forklifts	1	3.10	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	1.00	97	0.37
Building Construction	Welders	2	0.60	46	0.45
Demolition	Concrete/Industrial Saws	1	1.60	81	0.73
Demolition	Excavators	1	4.80	158	0.38
Demolition	Rubber Tired Dozers	1	4.80	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	6.40	97	0.37
Grading	Graders	0	8.00	187	0.41
Grading	Rubber Tired Dozers	1	9.10	247	0.40
Grading	Tractors/Loaders/Backhoes	1	9.10	97	0.37
Paving	Cement and Mortar Mixers	1	4.00	9	0.56
Paving	Pavers	1	1.40	130	0.42
Paving	Paving Equipment	1	1.40	132	0.36
Paving	Rollers	1	3.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	3.60	97	0.37

Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Scrapers	0	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Excavators	1	8.80	158	0.38
Trenching	Tractors/Loaders/Backhoes	1	4.40	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
Architectural Coating	3	40.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Building Construction	4	198.00	41.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Demolition	4	10.00	0.00	392.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Grading	2	5.00	0.00	100.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	14.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Trenching	2	5.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved 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					0.0251	0.0000	0.0251	3.8100e-003	0.0000	3.8100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7900e-003	0.0286	0.0178	3.0000e-005		1.5000e-003	1.5000e-003		1.3900e-003	1.3900e-003	0.0000	2.6728	2.6728	7.8000e-004	0.0000	2.6923
Total	**2.7900e-003**	**0.0286**	**0.0178**	**3.0000e-005**	**0.0251**	**1.5000e-003**	**0.0266**	**3.8100e-003**	**1.3900e-003**	**5.2000e-003**	**0.0000**	**2.6728**	**2.6728**	**7.8000e-004**	**0.0000**	**2.6923**

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	4.4000e-004	0.0199	3.2800e-003	2.0000e-005	9.0000e-005	2.0000e-005	1.1000e-004	2.0000e-005	2.0000e-005	4.0000e-005	0.0000	2.2086	2.2086	2.9000e-004	0.0000	2.2157
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	1.0000e-005	1.6000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0131	0.0131	0.0000	0.0000	0.0131
Total	**4.7000e-004**	**0.0200**	**3.4400e-003**	**2.0000e-005**	**1.0000e-004**	**2.0000e-005**	**1.2000e-004**	**2.0000e-005**	**2.0000e-005**	**4.0000e-005**	**0.0000**	**2.2217**	**2.2217**	**2.9000e-004**	**0.0000**	**2.2288**

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					5.6600e-003	0.0000	5.6600e-003	8.6000e-004	0.0000	8.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	9.6000e-004	0.0246	0.0193	3.0000e-005		6.8000e-004	6.8000e-004		6.8000e-004	6.8000e-004	0.0000	2.6728	2.6728	7.8000e-004	0.0000	2.6923
Total	**9.6000e-004**	**0.0246**	**0.0193**	**3.0000e-005**	**5.6600e-003**	**6.8000e-004**	**6.3400e-003**	**8.6000e-004**	**6.8000e-004**	**1.5400e-003**	**0.0000**	**2.6728**	**2.6728**	**7.8000e-004**	**0.0000**	**2.6923**

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	4.4000e-004	0.0199	3.2800e-003	2.0000e-005	9.0000e-005	2.0000e-005	1.1000e-004	2.0000e-005	2.0000e-005	4.0000e-005	0.0000	2.2086	2.2086	2.9000e-004	0.0000	2.2157
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	1.0000e-005	1.6000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0131	0.0131	0.0000	0.0000	0.0131
Total	**4.7000e-004**	**0.0200**	**3.4400e-003**	**2.0000e-005**	**1.0000e-004**	**2.0000e-005**	**1.2000e-004**	**2.0000e-005**	**2.0000e-005**	**4.0000e-005**	**0.0000**	**2.2217**	**2.2217**	**2.9000e-004**	**0.0000**	**2.2288**

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					9.0300e-003	0.0000	9.0300e-003	4.9700e-003	0.0000	4.9700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0216	9.8800e-003	2.0000e-005		1.1200e-003	1.1200e-003		1.0300e-003	1.0300e-003	0.0000	1.5689	1.5689	5.0000e-004	0.0000	1.5814
Total	**2.0500e-003**	**0.0216**	**9.8800e-003**	**2.0000e-005**	**9.0300e-003**	**1.1200e-003**	**0.0102**	**4.9700e-003**	**1.0300e-003**	**6.0000e-003**	**0.0000**	**1.5689**	**1.5689**	**5.0000e-004**	**0.0000**	**1.5814**

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	0.0000	5.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.9300e-003	3.9300e-003	0.0000	0.0000	3.9300e-003
Total	**1.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**3.9300e-003**	**3.9300e-003**	**0.0000**	**0.0000**	**3.9300e-003**

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					2.0300e-003	0.0000	2.0300e-003	1.1200e-003	0.0000	1.1200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.3000e-004	0.0154	0.0103	2.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	1.5689	1.5689	5.0000e-004	0.0000	1.5813
Total	**5.3000e-004**	**0.0154**	**0.0103**	**2.0000e-005**	**2.0300e-003**	**4.1000e-004**	**2.4400e-003**	**1.1200e-003**	**4.1000e-004**	**1.5300e-003**	**0.0000**	**1.5689**	**1.5689**	**5.0000e-004**	**0.0000**	**1.5813**

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	0.0000	5.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.9300e-003	3.9300e-003	0.0000	0.0000	3.9300e-003
Total	**1.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**3.9300e-003**	**3.9300e-003**	**0.0000**	**0.0000**	**3.9300e-003**

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					0.0252	0.0000	0.0252	0.0133	0.0000	0.0133	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4400e-003	0.0574	0.0262	5.0000e-005		2.9700e-003	2.9700e-003		2.7300e-003	2.7300e-003	0.0000	4.1642	4.1642	1.3200e-003	0.0000	4.1972
Total	**5.4400e-003**	**0.0574**	**0.0262**	**5.0000e-005**	**0.0252**	**2.9700e-003**	**0.0282**	**0.0133**	**2.7300e-003**	**0.0161**	**0.0000**	**4.1642**	**4.1642**	**1.3200e-003**	**0.0000**	**4.1972**

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	1.1000e-004	5.0900e-003	8.4000e-004	1.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	0.0000	0.5634	0.5634	7.0000e-005	0.0000	0.5652
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Worker	2.0000e-005	1.0000e-005	1.1000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	9.1600e-003	9.1600e-003	0.0000	0.0000	9.1700e-003
Total	**1.3000e-004**	**5.1000e-003**	**9.5000e-004**	**1.0000e-005**	**3.0000e-005**	**1.0000e-005**	**4.0000e-005**	**1.0000e-005**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**0.5726**	**0.5726**	**7.0000e-005**	**0.0000**	**0.5744**

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					5.6800e-003	0.0000	5.6800e-003	3.0000e-003	0.0000	3.0000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4100e-003	0.0408	0.0274	5.0000e-005		1.0900e-003	1.0900e-003		1.0900e-003	1.0900e-003	0.0000	4.1642	4.1642	1.3200e-003	0.0000	4.1972
Total	**1.4100e-003**	**0.0408**	**0.0274**	**5.0000e-005**	**5.6800e-003**	**1.0900e-003**	**6.7700e-003**	**3.0000e-003**	**1.0900e-003**	**4.0900e-003**	**0.0000**	**4.1642**	**4.1642**	**1.3200e-003**	**0.0000**	**4.1972**

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	1.1000e-004	5.0900e-003	8.4000e-004	1.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	0.0000	0.5634	0.5634	7.0000e-005	0.0000	0.5652
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.1000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	9.1600e-003	9.1600e-003	0.0000	0.0000	9.1700e-003
Total	**1.3000e-004**	**5.1000e-003**	**9.5000e-004**	**1.0000e-005**	**3.0000e-005**	**1.0000e-005**	**4.0000e-005**	**1.0000e-005**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**0.5726**	**0.5726**	**7.0000e-005**	**0.0000**	**0.5744**

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	2.0700e-003	0.0212	0.0243	4.0000e-005		1.1400e-003	1.1400e-003		1.0500e-003	1.0500e-003	0.0000	3.3175	3.3175	1.0500e-003	0.0000	3.3438
Total	**2.0700e-003**	**0.0212**	**0.0243**	**4.0000e-005**		**1.1400e-003**	**1.1400e-003**		**1.0500e-003**	**1.0500e-003**	**0.0000**	**3.3175**	**3.3175**	**1.0500e-003**	**0.0000**	**3.3438**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	1.0000e-005	1.6000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0131	0.0131	0.0000	0.0000	0.0131
Total	**3.0000e-005**	**1.0000e-005**	**1.6000e-004**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0131**	**0.0131**	**0.0000**	**0.0000**	**0.0131**

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	1.5100e-003	0.0326	0.0280	4.0000e-005		1.0800e-003	1.0800e-003		1.0800e-003	1.0800e-003	0.0000	3.3175	3.3175	1.0500e-003	0.0000	3.3438
Total	**1.5100e-003**	**0.0326**	**0.0280**	**4.0000e-005**		**1.0800e-003**	**1.0800e-003**		**1.0800e-003**	**1.0800e-003**	**0.0000**	**3.3175**	**3.3175**	**1.0500e-003**	**0.0000**	**3.3438**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	1.0000e-005	1.6000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0131	0.0131	0.0000	0.0000	0.0131
Total	**3.0000e-005**	**1.0000e-005**	**1.6000e-004**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0131**	**0.0131**	**0.0000**	**0.0000**	**0.0131**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5597					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0169	0.1286	0.1418	2.3000e-004		8.0500e-003	8.0500e-003		8.0100e-003	8.0100e-003	0.0000	19.6458	19.6458	2.7500e-003	0.0000	19.7147

Total	**0.5765**	**0.1286**	**0.1418**	**2.3000e-004**		**8.0500e-003**	**8.0500e-003**		**8.0100e-003**	**8.0100e-003**	**0.0000**	**19.6458**	**19.6458**	**2.7500e-003**	**0.0000**	**19.7147**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6900e-003	1.5800e-003	0.0212	2.0000e-005	1.2600e-003	3.0000e-005	1.2900e-003	3.4000e-004	3.0000e-005	3.6000e-004	0.0000	1.7482	1.7482	1.1000e-004	0.0000	1.7510
Total	**3.6900e-003**	**1.5800e-003**	**0.0212**	**2.0000e-005**	**1.2600e-003**	**3.0000e-005**	**1.2900e-003**	**3.4000e-004**	**3.0000e-005**	**3.6000e-004**	**0.0000**	**1.7482**	**1.7482**	**1.1000e-004**	**0.0000**	**1.7510**

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	0.5597					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.4800e-003	0.0915	0.1470	2.3000e-004		1.4400e-003	1.4400e-003		1.4400e-003	1.4400e-003	0.0000	19.6458	19.6458	2.7500e-003	0.0000	19.7147
Total	**0.5641**	**0.0915**	**0.1470**	**2.3000e-004**		**1.4400e-003**	**1.4400e-003**		**1.4400e-003**	**1.4400e-003**	**0.0000**	**19.6458**	**19.6458**	**2.7500e-003**	**0.0000**	**19.7147**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6900e-003	1.5800e-003	0.0212	2.0000e-005	1.2600e-003	3.0000e-005	1.2900e-003	3.4000e-004	3.0000e-005	3.6000e-004	0.0000	1.7482	1.7482	1.1000e-004	0.0000	1.7510
Total	**3.6900e-003**	**1.5800e-003**	**0.0212**	**2.0000e-005**	**1.2600e-003**	**3.0000e-005**	**1.2900e-003**	**3.4000e-004**	**3.0000e-005**	**3.6000e-004**	**0.0000**	**1.7482**	**1.7482**	**1.1000e-004**	**0.0000**	**1.7510**

3.6 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	0.8780					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0242	0.1860	0.2217	3.6000e-004		0.0109	0.0109		0.0108	0.0108	0.0000	30.6606	30.6606	4.1600e-003	0.0000	30.7645
Total	**0.9022**	**0.1860**	**0.2217**	**3.6000e-004**		**0.0109**	**0.0109**		**0.0108**	**0.0108**	**0.0000**	**30.6606**	**30.6606**	**4.1600e-003**	**0.0000**	**30.7645**

Unmitigated Construction Off-Site

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2100e-003	2.1600e-003	0.0294	3.0000e-005	1.9700e-003	4.0000e-005	2.0200e-003	5.3000e-004	4.0000e-005	5.7000e-004	0.0000	2.6602	2.6602	1.5000e-004	0.0000	2.6639
Total	**5.2100e-003**	**2.1600e-003**	**0.0294**	**3.0000e-005**	**1.9700e-003**	**4.0000e-005**	**2.0200e-003**	**5.3000e-004**	**4.0000e-005**	**5.7000e-004**	**0.0000**	**2.6602**	**2.6602**	**1.5000e-004**	**0.0000**	**2.6639**

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	0.8780					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.0300e-003	0.1436	0.2306	3.6000e-004		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	30.6605	30.6605	4.1600e-003	0.0000	30.7644
Total	**0.8851**	**0.1436**	**0.2306**	**3.6000e-004**		**2.2600e-003**	**2.2600e-003**		**2.2600e-003**	**2.2600e-003**	**0.0000**	**30.6605**	**30.6605**	**4.1600e-003**	**0.0000**	**30.7644**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2100e-003	2.1600e-003	0.0294	3.0000e-005	1.9700e-003	4.0000e-005	2.0200e-003	5.3000e-004	4.0000e-005	5.7000e-004	0.0000	2.6602	2.6602	1.5000e-004	0.0000	2.6639

Total	**5.2100e-003**	**2.1600e-003**	**0.0294**	**3.0000e-005**	**1.9700e-003**	**4.0000e-005**	**2.0200e-003**	**5.3000e-004**	**4.0000e-005**	**5.7000e-004**	**0.0000**	**2.6602**	**2.6602**	**1.5000e-004**	**0.0000**	**2.6639**

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0369					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2000e-004	7.1200e-003	9.2500e-003	1.0000e-005		3.9000e-004	3.9000e-004		3.8000e-004	3.8000e-004	0.0000	1.2873	1.2873	1.7000e-004	0.0000	1.2914
Total	**0.0378**	**7.1200e-003**	**9.2500e-003**	**1.0000e-005**		**3.9000e-004**	**3.9000e-004**		**3.8000e-004**	**3.8000e-004**	**0.0000**	**1.2873**	**1.2873**	**1.7000e-004**	**0.0000**	**1.2914**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	8.0000e-005	1.1100e-003	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1080	0.1080	1.0000e-005	0.0000	0.1081
Total	**2.0000e-004**	**8.0000e-005**	**1.1100e-003**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.1080**	**0.1080**	**1.0000e-005**	**0.0000**	**0.1081**

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	0.0369					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-004	6.0300e-003	9.6800e-003	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.2873	1.2873	1.7000e-004	0.0000	1.2914
Total	**0.0372**	**6.0300e-003**	**9.6800e-003**	**1.0000e-005**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**	**0.0000**	**1.2873**	**1.2873**	**1.7000e-004**	**0.0000**	**1.2914**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	8.0000e-005	1.1100e-003	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1080	0.1080	1.0000e-005	0.0000	0.1081
Total	**2.0000e-004**	**8.0000e-005**	**1.1100e-003**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.1080**	**0.1080**	**1.0000e-005**	**0.0000**	**0.1081**

3.7 Building Construction - 2019

Unmitigated Construction On-Site

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

Off-Road	5.7300e-003	0.0419	0.0393	5.0000e-005		2.9800e-003	2.9800e-003		2.7900e-003	2.7900e-003	0.0000	4.4776	4.4776	1.2500e-003	0.0000	4.5090
Total	**5.7300e-003**	**0.0419**	**0.0393**	**5.0000e-005**		**2.9800e-003**	**2.9800e-003**		**2.7900e-003**	**2.7900e-003**	**0.0000**	**4.4776**	**4.4776**	**1.2500e-003**	**0.0000**	**4.5090**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.1000e-003	0.1041	0.0303	1.1000e-004	7.5000e-004	1.8000e-004	9.3000e-004	2.2000e-004	1.7000e-004	3.9000e-004	0.0000	10.3686	10.3686	1.3000e-003	0.0000	10.4012
Worker	8.4100e-003	3.6000e-003	0.0483	4.0000e-005	2.8700e-003	6.0000e-005	2.9300e-003	7.7000e-004	6.0000e-005	8.3000e-004	0.0000	3.9900	3.9900	2.5000e-004	0.0000	3.9963
Total	**0.0115**	**0.1077**	**0.0786**	**1.5000e-004**	**3.6200e-003**	**2.4000e-004**	**3.8600e-003**	**9.9000e-004**	**2.3000e-004**	**1.2200e-003**	**0.0000**	**14.3586**	**14.3586**	**1.5500e-003**	**0.0000**	**14.3975**

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	1.4700e-003	0.0341	0.0372	5.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004	0.0000	4.4776	4.4776	1.2500e-003	0.0000	4.5090
Total	**1.4700e-003**	**0.0341**	**0.0372**	**5.0000e-005**		**8.9000e-004**	**8.9000e-004**		**8.9000e-004**	**8.9000e-004**	**0.0000**	**4.4776**	**4.4776**	**1.2500e-003**	**0.0000**	**4.5090**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.1000e-003	0.1041	0.0303	1.1000e-004	7.5000e-004	1.8000e-004	9.3000e-004	2.2000e-004	1.7000e-004	3.9000e-004	0.0000	10.3686	10.3686	1.3000e-003	0.0000	10.4012
Worker	8.4100e-003	3.6000e-003	0.0483	4.0000e-005	2.8700e-003	6.0000e-005	2.9300e-003	7.7000e-004	6.0000e-005	8.3000e-004	0.0000	3.9900	3.9900	2.5000e-004	0.0000	3.9963
Total	**0.0115**	**0.1077**	**0.0786**	**1.5000e-004**	**3.6200e-003**	**2.4000e-004**	**3.8600e-003**	**9.9000e-004**	**2.3000e-004**	**1.2200e-003**	**0.0000**	**14.3586**	**14.3586**	**1.5500e-003**	**0.0000**	**14.3975**

3.7 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.5300e-003	0.0641	0.0645	9.0000e-005		4.3000e-003	4.3000e-003		4.0200e-003	4.0200e-003	0.0000	7.3202	7.3202	2.0500e-003	0.0000	7.3714
Total	**8.5300e-003**	**0.0641**	**0.0645**	**9.0000e-005**		**4.3000e-003**	**4.3000e-003**		**4.0200e-003**	**4.0200e-003**	**0.0000**	**7.3202**	**7.3202**	**2.0500e-003**	**0.0000**	**7.3714**

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	4.5200e-003	0.1657	0.0463	1.8000e-004	1.2500e-003	1.9000e-004	1.4300e-003	3.7000e-004	1.8000e-004	5.5000e-004	0.0000	17.2920	17.2920	1.9700e-003	0.0000	17.3413
Worker	0.0126	5.2100e-003	0.0712	7.0000e-005	4.7700e-003	1.0000e-004	4.8700e-003	1.2800e-003	9.0000e-005	1.3800e-003	0.0000	6.4333	6.4333	3.6000e-004	0.0000	6.4423
Total	**0.0171**	**0.1709**	**0.1174**	**2.5000e-004**	**6.0200e-003**	**2.9000e-004**	**6.3000e-003**	**1.6500e-003**	**2.7000e-004**	**1.9300e-003**	**0.0000**	**23.7254**	**23.7254**	**2.3300e-003**	**0.0000**	**23.7835**

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	2.4400e-003	0.0567	0.0619	9.0000e-005		1.4800e-003	1.4800e-003		1.4800e-003	1.4800e-003	0.0000	7.3202	7.3202	2.0500e-003	0.0000	7.3714
Total	**2.4400e-003**	**0.0567**	**0.0619**	**9.0000e-005**		**1.4800e-003**	**1.4800e-003**		**1.4800e-003**	**1.4800e-003**	**0.0000**	**7.3202**	**7.3202**	**2.0500e-003**	**0.0000**	**7.3714**

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	4.5200e-003	0.1657	0.0463	1.8000e-004	1.2500e-003	1.9000e-004	1.4300e-003	3.7000e-004	1.8000e-004	5.5000e-004	0.0000	17.2920	17.2920	1.9700e-003	0.0000	17.3413
Worker	0.0126	5.2100e-003	0.0712	7.0000e-005	4.7700e-003	1.0000e-004	4.8700e-003	1.2800e-003	9.0000e-005	1.3800e-003	0.0000	6.4333	6.4333	3.6000e-004	0.0000	6.4423
Total	**0.0171**	**0.1709**	**0.1174**	**2.5000e-004**	**6.0200e-003**	**2.9000e-004**	**6.3000e-003**	**1.6500e-003**	**2.7000e-004**	**1.9300e-003**	**0.0000**	**23.7254**	**23.7254**	**2.3300e-003**	**0.0000**	**23.7835**

3.8 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.2700e-003	0.0319	0.0354	5.0000e-005		1.7500e-003	1.7500e-003		1.6200e-003	1.6200e-003	0.0000	4.5882	4.5882	1.4200e-003	0.0000	4.6238
Paving	1.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.3900e-003**	**0.0319**	**0.0354**	**5.0000e-005**		**1.7500e-003**	**1.7500e-003**		**1.6200e-003**	**1.6200e-003**	**0.0000**	**4.5882**	**4.5882**	**1.4200e-003**	**0.0000**	**4.6238**

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	1.0000e-005	6.6000e-004	1.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0785	0.0785	1.0000e-005	0.0000	0.0787
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	6.0000e-005	8.2000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0797	0.0797	0.0000	0.0000	0.0798
Total	**1.6000e-004**	**7.2000e-004**	**9.3000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.1582**	**0.1582**	**1.0000e-005**	**0.0000**	**0.1585**

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	2.5100e-003	0.0476	0.0390	5.0000e-005		1.7600e-003	1.7600e-003		1.7600e-003	1.7600e-003	0.0000	4.5882	4.5882	1.4200e-003	0.0000	4.6237
Paving	1.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.6300e-003**	**0.0476**	**0.0390**	**5.0000e-005**		**1.7600e-003**	**1.7600e-003**		**1.7600e-003**	**1.7600e-003**	**0.0000**	**4.5882**	**4.5882**	**1.4200e-003**	**0.0000**	**4.6237**

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	1.0000e-005	6.6000e-004	1.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0785	0.0785	1.0000e-005	0.0000	0.0787
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	6.0000e-005	8.2000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0797	0.0797	0.0000	0.0000	0.0798
Total	**1.6000e-004**	**7.2000e-004**	**9.3000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.1582**	**0.1582**	**1.0000e-005**	**0.0000**	**0.1585**

Race Street Mixed Use, San Jose, CA

DPM Construction Emissions and Modeling Emission Rates - Unmitigated

Construction Year	Construction Area	DPM (ton/year)	Area Source	DPM Emissions (lb/yr)	DPM Emissions (lb/hr)	DPM Emissions (g/s)	Modeled Area (m^2)	DPM Emission Rate ($g/s/m^2$)
2019	Project Site	0.0181	CON_DPM	36.2	0.01102	1.39E-03	9,342	1.49E-07
2020-2021*	Project Site	0.0176	CON_DPM	35.3	0.01074	1.35E-03	9,342	1.45E-07
Total		**0.0357**		**71**	**0.0218**	**0.0027**		

* Includes emissions for 2 months in 2021

Construction hours		
hr/day =	9	(7am - 4pm)
days/yr =	365	
hours/year =	3285	

PM2.5 Fugitive Dust Construction Emissions for Modeling - Unmitigated

Construction Year	Construction Area	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	Project Site	CON_FUG	0.0235	47.0	0.01431	1.80E-03	9,342	1.93E-07
2020-2021*	Project Site	CON_FUG	0.0023	4.5	0.00138	1.74E-04	9,342	1.86E-08
Total			**0.0258**	**51.5**	**0.0157**	**0.0020**		

* Includes emissions for 2 months in 2021

Construction hours		
hr/day =	9	(7am - 4pm)
days/yr =	365	
hours/year =	3285	

DPM Construction Emissions and Modeling Emission Rates - Mitigated

Construction Year	Construction Area	DPM (ton/year)	Area Source	DPM Emissions (lb/yr)	DPM Emissions (lb/hr)	DPM Emissions (g/s)	Modeled Area (m^2)	DPM Emission Rate ($g/s/m^2$)
2019	Site	0.00591	CON_DPM	11.8	0.00360	4.53E-04	9,342	4.85E-08
2020-2021*	Site	0.00595	CON_DPM	11.9	0.00362	4.56E-04	9,342	4.89E-08
Total		**0.0119**		**24**	**0.0072**	**0.0009**		

* Includes emissions for 2 months in 2021

Construction hours		
hr/day =	9	(7am - 4pm)
days/yr =	365	
hours/year =	3285	

PM2.5 Fugitive Dust Construction Emissions for Modeling - Mitigated

Construction Year	Construction Area	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	Site	CON_FUG	0.0064	12.7	0.00387	4.88E-04	9,342	5.22E-08
2020-2021*	Site	CON_FUG	0.0023	4.5	0.00138	1.74E-04	9,342	1.86E-08
Total			**0.0086**	**17.3**	**0.0053**	**0.0007**		

* Includes emissions for 2 months in 2021

Construction hours

hr/day =	9	(7am - 4pm)
days/yr =	365	
hours/year =	3285	

Race Street Mixed Use, San Jose, CA - Health Impact Summary

Construction Health Impact Summary - Residential Receptors Without Mitigation

Construction Year	Maximum Concentrations		Cancer Risk (per million)		Hazard Index	Maximum Annual PM2.5 Concentration
	Exhaust PM2.5/DPM ($\mu g/m^3$)	Fugitive PM2.5 ($\mu g/m^3$)	Infant/Child	Adult	(-)	($\mu g/m^3$)
2019	0.0488	0.1720	8.0	0.14	0.010	0.210
2020-2021*	0.0475	0.0129	7.8	0.14	0.010	0.050
Total	-	-	**15.8**	**0.3**	-	-
Maximum Annual	0.0488	0.1720	-	-	**0.01**	**0.21**

* Includes emissions for 2 months in 2021

Construction Health Impact Summary - Residential Receptors With Mitigation

Construction Year	Maximum Concentrations		Cancer Risk (per million)		Hazard Index	Maximum Annual PM2.5 Concentration
	Exhaust PM2.5/DPM ($\mu g/m^3$)	Fugitive PM2.5 ($\mu g/m^3$)	Infant/Child	Adult	(-)	($\mu g/m^3$)
2019	0.0159	0.0362	2.6	0.0	0.003	0.049
2020-2021*	0.0160	0.0129	2.6	0.0	0.003	0.026
Total	-	-	**5.2**	**0.1**	-	-
Maximum Annual	0.0160	0.0362	-	-	**0.003**	**0.05**

* Includes emissions for 2 months in 2021

Race Street Mixed Use, San Jose, CA - Construction Impacts - Unmitigated
Maximum DPM Cancer Risk From Construction
Off-Site Residential Receptor Locations - 1.5 meters

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 - 16**	**16 - 30**
Parameter				
ASF =	10	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	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)		Age	Infant/Child	Modeled DPM Conc (ug/m3)		Age	Adult		
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Annual**	**Sensitivity Factor**	**Cancer Risk (per million)**	**Year**	**Annual**	**Sensitivity Factor**	**Cancer Risk (per million)**	**Fugitive PM2.5**	**Total PM2.5**
0	0.25	-0.25 - 0*	-	-	10	-	-	-	-	-	-	-
1	1	0 - 1	2019	0.0488	10	8.02	2019	0.0488	1	0.14	0.1403	0.189
2	1	1 - 2	2020-2021	0.0475	10	7.81	2020-2021	0.0475	1	0.14	0.0089	0.056
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						**15.8**				**0.3**		

* Third trimester of pregnancy

Race Street Mixed Use, San Jose, CA - Construction Impacts - Construction Impacts - Mitigated
Maximum DPM Cancer Risk From Construction
Off-Site Residential Receptor Locations - 1.5 meters

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 - 16**	**16 - 30**
Parameter				
ASF =	10	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	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					
							Modeled					
Exposure Year	**Exposure Duration (years)**	**Age**	**DPM Conc (ug/m3) Year**	**DPM Conc (ug/m3) Annual**	**Age Sensitivity Factor**	**Infant/Child Cancer Risk (per million)**	**DPM Conc (ug/m3) Year**	**DPM Conc (ug/m3) 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	0.0159	10	2.61	2019	0.0159	1	0.05	0.0248	0.041
2	1	1 - 2	2020-2021	0.0160	10	2.63	2020-2021	0.0160	1	0.05	0.0089	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						**5.2**				**0.09**		

* Third trimester of pregnancy