

APPENDIX B

AIR QUALITY TECHNICAL REPORT

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Project No: 18-06879

Andrew Metzger
Circlepoint
200 Webster Street, Suite 200
Oakland, California 94607
Via email: a.metzger@circlepoint.com

Subject: 1095 Rollins Road Apartment Development IS-MND, Air Quality Letter Report, 1095 Rollins Road, Burlingame, California, 94010

Dear Mr. Metzger:

This letter report analyzes the potential air quality impacts of the proposed apartment development at 1095 Rollins Road in Burlingame, California. Rincon Consultants, Inc. (Rincon) prepared this letter report under contract to Circlepoint to support California Environmental Quality Act (CEQA) documentation for an Initial Study-Mitigated Negative Declaration (IS-MND). The project is located in the San Francisco Bay Area Air Basin (SFBAAB) under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). This assessment is based on significance thresholds and methodologies in the BAAQMD's *CEQA Air Quality Guidelines*.¹

Project Location

The project site is a 1.08-acre property comprising two assessor's parcels, located at 1095 Rollins Road in Burlingame, California (Assessor Parcel Numbers 026-231-250 and 026-231-260). The project site currently contains a restaurant on the western portion of the site and elevated tennis courts located on top of a parking structure on the eastern portion of the site. The project site is bound by a gas station to the west, Rollins Road and U.S. 101 to the north, a City utility station to the east, and a multi-family residential complex (Northpark Apartments) to the south and east.

Project Description

The project would include demolition of all existing structures on-site and construction of a six-story, 150-unit multi-family residential apartment building. Ten percent of units would be designated as affordable housing for moderate-income households. The building would also include a one-level subterranean garage with 192 parking spaces in traditional and stacked parking configurations. The building would include multiple roof decks with barbeques and fire pits, a programmed courtyard with bocce ball court, a fitness center, clubhouse, bicycle parking, and on-site storage. Access to the site

¹ BAAQMD. 2017. *California Environmental Quality Act Air Quality Guidelines*. http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en



would be provided via an entrance and exit along Rollins Road. See Attachment 1 for the project site plan.

Environmental Setting

The project site is located in the San Francisco Bay Area Air Basin (SFAAB), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). As the local air quality management agency, the BAAQMD is required to monitor air pollutant levels for conformance with state and federal air quality standards and, if they are not met, to develop strategies to meet the standards. Air quality studies generally focus on four pollutants, referred to as criteria pollutants, which are most commonly measured and regulated: carbon monoxide (CO), ground level ozone (O₃), nitrogen dioxide (NO₂), and suspended particulate matter (PM₁₀ and PM_{2.5}).

Depending on whether the standards are met or exceeded, the SFAAB is classified as being in “attainment” or “nonattainment.” Under state law, air districts are required to prepare a plan for air quality improvement for pollutants for which the district is in non-compliance. The BAAQMD is in non-attainment for the federal and state ozone standards, the federal and state PM_{2.5} (particulate matter up to 2.5 microns² in size) standards, and the state PM₁₀ (particulate matter up to 10 microns in size) standards. Additionally, the BAAQMD is required to prepare a plan for improvement for these pollutants in nonattainment.³ Table 1 describes the health effects associated with criteria pollutants for which the SFAAB is in non-attainment.

Table 1 Health Effects Associated with Non-Attainment Criteria Pollutants

Pollutant	Adverse Effects
Ozone	(1) Short-term exposures: (a) pulmonary function decrements and localized lung edema in humans and animals and (b) risk to public health implied by alterations in pulmonary morphology and host defense in animals; (2) long-term exposures: risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (3) vegetation damage; and (4) property damage.
Suspended particulate matter (PM ₁₀)	(1) Excess deaths from short-term and long-term exposures; (2) excess seasonal declines in pulmonary function, especially in children; (3) asthma exacerbation and possibly induction; (4) adverse birth outcomes including low birth weight; (5) increased infant mortality; (6) increased respiratory symptoms in children such as cough and bronchitis; and (7) increased hospitalization for both cardiovascular and respiratory disease (including asthma). ¹
Suspended particulate matter (PM _{2.5})	(1) Excess deaths from short- and long-term exposures; (2) excess seasonal declines in pulmonary function, especially in children; (3) asthma exacerbation and possibly induction; (4) adverse birth outcomes, including low birth weight; (5) increased infant mortality; (6) increased respiratory symptoms in children, such as cough and bronchitis; and (7) increased hospitalization for both cardiovascular and respiratory disease, including asthma. ^a

¹ More detailed discussions on the health effects associated with exposure to suspended particulate matter can be found in USEPA’s Air Quality Criteria for Particulate Matter, October 2004.

Source: United States Environmental Protection Agency (USEPA) 2018

² One micron equals one-millionth of a meter; i.e. 10⁻⁶

³ BAAQMD. 2017. Air Quality Standards and Attainment Status. <http://www.baaqmd.gov/about-air-quality/research-and-data/air-quality-standards-and-attainment-status>. Accessed March 2019



Regulatory Setting

Air Quality Management

The BAAQMD is responsible primarily for assuring the national and state ambient air quality standards are attained and maintained in the Bay Area. It is also responsible for adopting and enforcing rules and regulations concerning air pollutant sources, issuing permits for stationary sources of air pollutants, inspecting stationary sources of air pollutants, responding to citizen complaints, monitoring ambient air quality and meteorological conditions, awarding grants to reduce motor vehicle emissions, conducting public education campaigns, and many other functions. The BAAQMD has jurisdiction over much of the nine-county Bay Area including San Mateo County.

The BAAQMD adopted the 2017 Clean Air Plan (2017 Plan) as an update to the 2010 Clean Air Plan. The 2017 Plan provides a regional strategy to protect public health and protect the climate. Consistent with the greenhouse gas (GHG) reduction targets adopted by the state, the 2017 Plan lays the groundwork for a long-term effort to reduce Bay Area GHG emissions to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050.⁴ To fulfill State O₃ planning requirements, the 2017 control strategy includes all feasible measures to reduce emissions of O₃precursors—reactive organic gases (ROG) and nitrogen oxides (NO_x)—and reduce transport of O₃and its precursors to neighboring air basins. The 2017 Plan builds upon and enhances the BAAQMD's efforts to reduce emissions of fine particulate matter and toxic air contaminants (TAC).

Toxic Air Contaminants

The Air Toxic "Hot Spots" Information and Assessment Act of 1987 (AB 2588) seeks to identify and evaluate risk from air toxics sources but does not directly regulate air toxics emissions. Under AB 2588, TAC emissions from individual facilities are quantified and prioritized. "High priority" facilities are required to perform a health risk assessment and, if specific thresholds are violated, are required to communicate the results to the public in the form of notices and public meetings. Although TACs and PM_{2.5} tend to be localized and are found in relatively low concentrations in ambient air, exposure to low concentrations over long periods can result in increased risk of cancer and/or adverse health effects in local communities. Because several communities within the Bay Area experience relatively high exposure to TACs compared with other communities, the BAAQMD established the Community Air Risk Evaluation (CARE) program in 2004 to identify impacted communities. Currently the City of Burlingame is not considered an impacted community based on the Bay Area TAC inventory developed in 2005.⁵ However, BAAQMD's *CEQA Air Quality Guidelines* include risk and hazard thresholds that are intended to apply to projects that would site new permitted or non-permitted sources in proximity to receptors and for projects that would site new sensitive receptors in proximity to permitted or non-permitted sources of TACs or PM_{2.5} emissions.

Thresholds

⁴ BAAQMD. 2017. Spare the Air Cool the Climate: Final 2017 Clean Air Plan. http://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en

⁵ <http://www.baaqmd.gov/community-health/community-health-protection-program/community-air-risk-evaluation-care-program>



CEQA Thresholds

To determine whether a project would have a significant impact to air quality, Appendix G of the *CEQA Guidelines* requires consideration of whether a project would:

1. Conflict with or obstruct implementation of the applicable air quality plan
2. Violate any air quality standard or contribute substantially to an existing or projected air quality violation
3. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)
4. Expose sensitive receptors to substantial pollutant concentrations
5. Create objectionable odors affecting a substantial number of people

Regional Air Emission Thresholds

The BAAQMD *CEQA Air Quality Guidelines* quantify project-level air quality thresholds with defined numeric values and evaluation criteria for pollutant emissions. These project-level thresholds, shown in Table 2, represent the levels at which a project's individual emissions of criteria air pollutants or precursors would result in a cumulatively considerable contribution to the SFBAAB's existing air quality conditions. The project would result in a significant impact if construction or operational emissions would exceed any of the thresholds shown in Table 2.¹

Table 2 Air Quality Thresholds of Significance

Pollutant/Precursor	Construction-Related Thresholds	Operational Related Thresholds	
	Average Daily Emissions (pounds per day)	Maximum Annual Emissions (tpy)	Average Daily Emissions (lbs/da)
ROG	54	10	54
NO _x	54	10	54
PM ₁₀	82 (exhaust)	15	82
PM _{2.5}	54 (exhaust)	10	54

Source: Table 2-1, Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, May 2017.

Notes: tpy = tons per year; lbs/day = pounds per day; NO_x = oxides of nitrogen; PM_{2.5} = fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less; PM₁₀ = respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less; ROG = reactive organic gases; tpy = tons per year.

In addition, the BAAQMD recommends all Basic Construction Mitigation Measures to be included in project design and implementation during construction (as listed in Table 8-1 of the BAAQMD *CEQA Air Quality Guidelines*).

Toxic Air Contaminant Thresholds

According to BAAQMD, for any proposed project that includes the siting of new receptors, an analysis of risk should be conducted following guidance developed by BAAQMD described in *Recommended Methodology for Screening and Modeling Local Risks and Hazards* version 3.0 (2012a). BAAQMD has established the following *Thresholds of Significance* for local community risks and hazards associated with TACs and PM_{2.5} for assessing individual source impacts at a local level (BAAQMD 2017c):



- Not to exceed an increased cancer risk of > 10 in one-millions
- Not to exceed increased non-cancer (i.e., Chronic or Acute) risk of > 1.0 Hazard Index
- Not to exceed ambient $PM_{2.5}$ concentration increase $> 0.3 \mu\text{g}/\text{m}^3$ (micrograms/cubic meter) annual average

A project would be considered to have a cumulatively considerable impact if the aggregate total of current and proposed TAC sources within a 1,000 feet radius of the project fence line in addition to the proposed project would exceed the following *Thresholds of Significance*:

- Not to exceed an increased cancer risk of > 100 in one-million
- Not to exceed increased non-cancer (i.e., Chronic or Acute) risk of > 10 Hazard Index
- Not to exceed ambient $PM_{2.5}$ concentration increase $> 0.8 \mu\text{g}/\text{m}^3$ annual average

Excess cancer risks are defined as those occurring in excess of or above and beyond those risks that would normally be associated with a location or activity if toxic pollutants were not present. Non-carcinogenic health effects are expressed as a hazard index, which is the ratio of expected exposure levels to an acceptable reference exposure level.

BAAQMD defines sensitive receptors as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and the chronically ill. These facilities include residences, school playgrounds, child-care centers, retirement homes, and convalescent homes. The nearest sensitive receptors are the multi-family residential units (Northpark Apartments) located immediately east and south of the project site. Additionally, as a residential land use, the proposed project would include the siting of new receptors.

Methodology

The project's construction and operational emissions were estimated using the California Emissions Estimator Model (CalEEMod), version 2016.3.2 (see Attachment B). CalEEMod uses project-specific information, including the project's land uses, square footages for different uses (e.g., mid-rise apartments), and location, to estimate a project's construction and operational emissions.

Construction Emissions

Construction emissions modeled include emissions generated by construction equipment used on-site and emissions generated by vehicle trips associated with construction, such as worker and vendor trips. Emissions were modeled assuming construction of a 6-story multifamily residential building with 150 units and a subterranean enclosed parking area with an elevator. Based on information provided by the applicant, construction would require demolition of 24,537 square feet of the existing structures and 23,500 cubic yards of exported material. Construction modeling was based on information provided by the applicant for a construction schedule of approximately 21 months from July 2020 to March 2022. The applicant provided construction phasing as well as equipment type, equipment amount, and hours of operation which were used in this analysis. For the purposes of this analysis, it was assumed that 2023 would be the first full operational year.

Operational Emissions



Operational emissions modeled include mobile source emissions (i.e., vehicle emissions) and area source emissions. Mobile source emissions include emissions generated by trips to and from the project site. The trip generation rates applied for the project were from the Institute of Transportation Engineers (ITE) in *Trip Generation Manual* 10th edition for Land Use Multifamily Housing (Mid-Rise) (ITE Code: 221) and adjusted according to the Transportation Analysis prepared for this project⁶. Area source emissions are generated by landscape maintenance equipment, consumer products, and architectural coatings. Project design features such as incorporation of energy-efficient appliances, installation of low-flow fixtures, and use of water-efficient irrigation systems were incorporated into CalEEMod. Additionally, when estimating operational emissions features such as increased density of the apartment complex and location of the project site in relation to downtown and transit stations were also incorporated into CalEEMod. Although there are existing uses on the project sit contributing to emissions to local air quality, existing operational emissions were not included in this analysis to provide a conservative emissions estimate.

Risk and Hazard Screening

BAAQMD provides community risk and hazards screening tools for agencies to use in deciding whether there should be further environmental review of a project. According to BAAQMD, the screening tools provide conservative estimates and a more refined analysis, including site-specific dispersion modeling, should be conducted for more accurate (and usually lower) risk and hazard estimates⁷. The screening tools provide estimates for PM_{2.5} concentrations, cancer risk, chronic hazard risk, and acute hazard risk from stationary, roadway, and highway sources. The risk and hazard screening analysis process include the following steps:

1. Identify emissions sources (permitted sources, highways, major roadways, and railways) within 1,000 feet of the project's fence line using BAAQMD screening tools. If there are no sources within 1,000 feet of the project, then there is no significant impact for risk and hazards and no further analysis is needed. If emissions sources exist within 1,000 feet of the project, proceed to Step 2 to conduct initial conservative screening.
2. If emissions sources are present within 1,000 feet of the project site, conduct initial conservative screening using BAAQMD screening tools, comparing each source's estimated cancer risk, PM_{2.5}, and hazard values to applicable thresholds. Sum all of the sources' impacts for comparison to applicable cumulative thresholds. If the risk and hazard estimates for an individual source and/or the cumulative impacts are below BAAQMD's thresholds of significance, then there is no significant impact for risk and hazards and no further analysis is needed. If thresholds are exceeded, then proceed to Step 3 to conduct advanced screening for more refined estimates.
3. If emissions sources present within 1,000 feet of the project site have risk and hazards above BAAQMD thresholds using the method described in Step 2, conduct advanced screening for more refined estimates. To refine estimates, scale highway and roadway risk and PM_{2.5} values to reflect actual traffic and distances from the project using BAAQMD methods from the Modeling Report.⁷ If the refined risk and hazard estimates are below applicable thresholds, then there is

⁶ W-Trans. 2019. IS-MND Transportation Analysis for the 1095 Rollins Road Project.

⁷ BAAQMD. 2012. *Recommended Methods for Screening and Modeling Local Risks and Hazards*.
<http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/risk-modeling-approach-may-2012.pdf>



no significant impact for risk and hazards and no further analysis is needed. If thresholds are exceeded, then proceed to Step 4 to conduct refined modeling analysis.

4. If emissions sources present within 1,000 feet of the project site have refined risk and hazards estimates above BAAQMD thresholds as determined in Step 3, conduct refined modeling analysis. For highways and major roadways, use local traffic and meteorology data to model risk and hazards using BAAQMD methods from the Modeling Report.⁷ If the risk and hazard estimates with refined modeling are below thresholds, then there is no significant impact for risk and hazards and no further analysis is needed. If thresholds are exceeded, then risk reduction strategies should be implemented.

According to BAAQMD, a multi-family residential development is considered a sensitive air quality receptor. CARB has identified diesel particulate matter (DPM) as the primary airborne carcinogen in the state.¹ A primary source of DPM is exhaust from diesel vehicle traffic on highways. In addition, the BAAQMD recommends analyzing permitted stationary sources, major roadways, and railroads. In order to assess potential exposure to TACs for new residents near such sources, the BAAQMD risk and hazard screening analysis using BAAQMD's screening tools was used to assess whether the project may subject future residents to substantial sources of TACs.

Refined Risk Modeling

The BAAQMD identifies construction activities as a common source of TAC and PM_{2.5} emissions due to the operation of diesel-powered equipment and heavy-duty trucks that emit DPM.¹ Although construction activity is short-lived, it may increase TAC concentrations in the short term at nearby sensitive receptors. DPM is the primary contaminant of concern for construction of the project and would be the TAC emitted in the largest quantity, thus health risks from construction activity were assessed as they relate to DPM exposure. A refined health risk assessment (HRA) was conducted to evaluate construction emissions, including DPM and PM_{2.5}, and their potential impacts on the sensitive receptors located 35 feet to the east and 70 feet to the south of the project site.

The construction HRA was conducted following the methodology outlined in BAAQMD's *Recommended Methods for Screening and Modeling Local Risks and Hazards* (2012).⁷ Potential cancer and non-cancer health impacts were estimated using exposure periods appropriate to evaluate short term emission increases. DPM and PM_{2.5} dispersion was modeled using the United States Environmental Protection Agency (USEPA) air dispersion model, the AMS/EPA Regulatory Model (AERMOD), version 19044 utilizing local meteorological data from the San Francisco International Airport, approximately 2.2 miles northwest of the project site. The specific meteorological data was pre-processed with a meteorological data preprocessor (AERMET), version 14134, and is identified by BAAQMD as appropriate meteorological data to use with AERMOD while conducting an HRA for the City of Burlingame. Average annual and maximum daily on-site PM₁₀ and PM_{2.5} emissions estimated by CalEEMod were input into AERMOD to determine the concentration level in µg/m³ at off-site sensitive receptors. DPM concentration was assumed to equal the PM₁₀ exhaust emissions. On-site exhaust emissions from construction equipment and hauling trucks were considered in this analysis. Cancer and non-cancer health impacts were subsequently estimated using the CARB Hot Spots Analysis and Reporting Program Version 2 (HARP 2) and TAC exposure results were compared to BAAQMD thresholds to assess potential impacts.



Impact Analysis

Threshold 1: Would the project conflict with or obstruct implementation of the applicable air quality plan?

To be consistent with an air quality management plan (AQMP), a project must conform to the local General Plan and must not result in or contribute to an exceedance of the local jurisdiction's forecasted growth assumptions in terms of future population, employment, or growth in Vehicle Miles Traveled (VMT). A project may be inconsistent with the AQMP if it would generate population, housing, or employment growth exceeding the forecasts used in the development of the AQMP. Population growth would lead to increased vehicle use, energy consumption, and associated air pollutant emissions. The most recent and applicable adopted air quality plan for the SFBAAB is the 2017 Clean Air Plan (2017 Plan). The project would include 150 apartment units. Based on CalEEMod defaults for the project's land use type this would result in 429 residents, which is approximately 1.4 percent of Burlingame's 2019 population⁸. This is a conservative estimate because the California Department of Finance (DOF) estimates average household size in the City of Burlingame to be 2.4 persons in 2019, which would result in approximately 360 residents (2.4 persons/household x 150 units).⁸ As such, the population increase from the project would be nominal and not exceed the City's projected population growth.

The County of San Mateo's *Traffic Impact Study Requirements* establish a significance threshold which considers a project's impact to traffic significant if its implementation increases daily trips by 500 or more.⁹ According to the Transportation Analysis prepared for the project, no increase in traffic is anticipated due to the higher trip generation rates associated with the existing land use (i.e. restaurant) compared with the future residential land use.⁶ On average the project is expected to generate 198 fewer daily trips than the existing on-site use resulting in less VMT. Consequently, project development would not conflict with population and VMT projections used to develop the 2017 Plan planning projections. There would be no impact.

Threshold 2: Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

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

Construction Emissions

⁸ California Department of Finance. 2019. *Report E-5: Population and Housing Estimates for Cities, Counties, and the State, January 1, 2011-2019, with 2010 Benchmark*. Accessed at <http://dof.ca.gov/Forecasting/Demographics/Estimates/E-1/>

⁹ County of San Mateo Department of Public Works. 2013. *Traffic Impact Study Requirements*.

<https://publicworks.smcgov.org/sites/publicworks.smcgov.org/files/documents/files/Traffic%20Impact%20Study%20Guidelines-Final%2008-15-2013.pdf>



Project construction would generate temporary air pollutant emissions. Table 3 summarizes the estimated maximum daily emissions of pollutants during project construction. Maximum daily emissions do not account for compliance with BAAQMD Basic Construction Mitigation Measures and therefore the presented analysis is conservative. As shown in Table 3, the maximum daily project emissions would not exceed BAAQMD daily thresholds for any criteria pollutant.

Table 3 Maximum Daily Project Construction Emissions

Year	Estimated Emissions (lbs/day)					
	ROG	NO _x	CO	PM ₁₀ (exhaust)	PM _{2.5} (exhaust)	SO _x
2020 Maximum Daily Emissions	1.2	24.8	15.1	0.4	0.4	0.1
2021 Maximum Daily Emissions	8.4	12.3	14.0	0.6	0.6	<0.1
2022 Maximum Daily Emissions	8.3	11.4	13.9	0.5	0.5	<0.1
BAAQMD Thresholds (average daily emissions)	54	54	N/A	82	54	N/A
Threshold Exceeded?	No	No	N/A	No	No	N/A

See "Overall Construction unmitigated" emissions. Winter emissions results are shown for all emissions. See CalEEMod worksheets in Attachment B.

N/A = not applicable; no BAAQMD threshold for CO or SO_x

Operational Emissions

Long-term emissions associated with project operation, as shown in Table 4 and Table 5, would include emissions from vehicle trips (mobile sources), landscape maintenance equipment, consumer products, and architectural coating associated with on-site development (area sources).¹⁰ New energy and water reduction requirements were not incorporated in CalEEMod, including residential energy efficiency improvements and indoor water use efficiency improvements per the 2016 Title 24 Building Energy Efficiency Standards. Similarly, ten electric vehicle spaces planned for the project parking area are not incorporated in CalEEMod. Therefore, energy, water, and transportation emissions are a conservative estimate. As shown in Table 4 and Table 5, emissions would not exceed BAAQMD daily or annual thresholds for any criteria pollutant.

¹⁰ The trip generation rates applied for project were from the IS-MND Transportation Analysis for the 1095 Rollins Road Project (2019 W-Trans). The Transportation Analysis used the Institute of Transportation Engineers Trip Generation Manual, 10th Edition for Multifamily Housing (Mid-Rise) (ITE Code: 221).



Table 4 Project Operational Average Daily Emissions

Sources	Average Daily Emissions (lbs/day)					
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}	SO _x
Area	4.3	0.3	12.4	<0.1	<0.1	<0.1
Energy	<0.1	0.3	0.1	<0.1	<0.1	<0.1
Mobile	0.7	1.8	6.4	1.5	0.4	<0.1
Total Project Emissions	5.1	2.4	18.9	1.6	0.5	<0.1
BAAQMD Thresholds	54	54	N/A	82	54	N/A
Threshold Exceeded?	No	No	N/A	No	No	N/A

See "Overall operational-mitigated" Winter emissions. See CalEEMod worksheets in Attachment B. Numbers may not add up due to rounding.
N/A = not applicable; no BAAQMD threshold for CO or SO_x

Table 5 Project Operational Maximum Annual Emissions

Sources	Maximum Annual Emissions (tons/year)					
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}	SO _x
Area	0.8	<0.1	1.1	<0.1	<0.1	<0.1
Energy	<0.1	0.1	<0.1	<0.1	<0.1	<0.1
Mobile	0.1	0.3	1.1	0.3	0.1	<0.1
Total Project Emissions	0.9	0.4	2.2	0.3	0.1	<0.1
BAAQMD Thresholds	10	10	N/A	15	10	N/A
Threshold Exceeded?	No	No	N/A	No	No	N/A

See "Overall operational-mitigated" Annual emissions. See CalEEMod worksheets in Attachment B. Numbers may not add up due to rounding.
N/A = not applicable; no BAAQMD threshold for CO or SO_x

Threshold 4: Would the project expose sensitive receptors to substantial pollutant concentrations?

Carbon Monoxide (CO) Hotspots

A project's indirect CO emissions would be significant if they contribute to a violation of the State standards for CO (9.0 parts per million (ppm) averaged over 8 hours and 20 ppm over 1 hour). BAAQMD provides a preliminary screening methodology to conservatively determine whether a proposed project would exceed CO thresholds. If the following criteria are met, a project would not have a significant impact related to local CO concentrations:

1. Project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans.
2. The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
3. The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).



Based on the Transportation Analysis prepared for the project would generate 198 fewer daily trips on average than the existing uses of the project site. Therefore, the project would have no impact on affected intersections and would be consistent with the County Congestion Management Program. As a result, the project would not result in individually or cumulatively significant impacts from CO emissions and would have a less than significant impact on local CO concentrations.

Toxic Air Contaminants

The following construction HRA evaluates the potential health risk to off-site receptors due to construction of the proposed project, while the results of the operational screening analyses evaluate potential health risk to future residents of the proposed project due to existing sources of TACs and PM_{2.5}. Results of each analysis compare estimated cancer risk, PM_{2.5}, and hazard values as single sources and cumulatively to applicable BAAQMD thresholds.

Health Impacts of TACs from Construction Activity

Based on the applicant provided construction schedule project construction is anticipated to begin July 1, 2020 and be completed by March 2022, lasting a total of 21 months. Activities for each construction phase would be periodic and short-term and project-related TAC emissions would cease with the completion of construction activities. The results of the construction HRA are provided in Table 6.

Table 6 Health Risks Associated with Construction Activity

Scenario	Excess Cancer Risk (per million)	Chronic Health Risk ¹	PM _{2.5} µg/m ³ annual average
Maximum Exposed Individual	137	0.09	0.49
BAAQMD Significance Threshold	>10	>1	>0.3
Threshold Exceeded?	Yes	No	Yes

Notes: ¹ Noncancer health impacts are assessed are determined by dividing the airborne concentration at the receptor by the appropriate Reference Exposure Level (REL) for that substance. A REL is defined as the concentration at which no adverse noncancer health effects are anticipated. Because noncancer health impacts are assessed as the ratio of airborne concentration versus the REL, the resulting hazard index is unitless. See Attachment C for calculations and HRA data.

The NorthPark Apartments are the nearest sensitive receptor, located approximately 35 feet east and 70 feet south of the project site. The air dispersion and risk analysis identified the maximum exposed individual (MEI) to be located at the NorthPark Apartment building closest to the project site, approximately 35 feet east. As shown in Table 6, at the MEI, the chronic hazard index is less than 1, however PM_{2.5} ground level concentrations exceed 0.3 µg/m³ and the excess cancer risk due to DPM exposure during the 21 months of construction at the MEI exceeds the 10 in one million cancer risk.. Therefore, the health risk to nearby residents due to project construction would be potentially significant. In addition to the Basic Construction Mitigation Measures that BAAQMD requires for all construction activities, Mitigation Measure AQ-1, would be required to reduce health risks to nearby sensitive receptors associated with DPM exposure.



Combined Sources

The cumulative impact of the mitigated project was further assessed by evaluating all current and proposed substantial sources of TACs within 1,000 feet of the identified construction MEI. Existing sources within 1,000 feet of the construction MEI includes U.S. 101, Rollins Road, Broadway road, Caltrans Rail line, and seven permitted stationary sources including two gas stops, a generator, and several permitted facilities. Additionally, the SummerHill Apartments are currently under construction approximately 445 feet southeast of the construction MEI. Cumulative risk impacts on the construction MEI from these sources was estimated as described below following BAAQMD's *CEQA Guidelines* (2017c). Cumulative impacts from mitigated construction of the project are reported in Table 7.

Highway TAC Impacts

Cumulative risk, hazard, and PM_{2.5} impacts associated with the mobile TAC emissions from U.S. 101 were provided by BAAQMD. BAAQMD used AERMOD to model TACs associated with the highway in 20 by 20-meter grids and are based on EMFAC 2014 average daily traffic count and fleet mix. The nearest segment of U.S. 101 was approximately 220 feet north of the construction MEI. The modeled health and PM_{2.5} risks at the construction MEI are provide in Table 7.

Roadway TAC Impacts

Only roadways with greater than 10,000 average daily volume (AADT) were considered a significant source of mobile TACs. AADT volumes for the roadways within 1,000 feet of the construction MEI were estimated based on the peak-hour traffic counts at the surrounding intersections provided by the transportation analysis¹¹. Rollins Road approximately 160 feet north of the construction MEI was estimated to have an AADT of approximately 10,500 while Broadway, approximately 850 feet west of the construction MEI, was estimated to have an AADT of 40,200. BAAQMD modeled cancer risk and PM_{2.5} for all roadways in the Bay Area with greater than 30,000 annual average daily traffic in 20 by 20-meter grids. BAAQMD's modeled health risk and PM_{2.5} values at the construction MEI from major roadways are provided in Table 7.

Railroad TAC Impacts

Caltrain rail lines serving diesel fueled passenger and freight locomotives are approximately 570 feet southwest of the construction MEI. Although Caltrain is in the process of converting the fleet from diesel powered to a mixed fuel, the BAAQMD provided health risk and PM_{2.5} values based on it 2014 data and an all diesel fleet. BAAQMD's modeled health risk and PM_{2.5} values at the construction MEI from the railroad are provided in Table 7.

Stationary Source TAC Impacts

The BAAQMD's Stationary Source Inquiry Form and request process was used to obtain the most updated health risk and PM_{2.5} values associated with facilities permitted stationary sources within 1,000 feet of the construction MEI. BAAQMD's *Stationary Source Risk & Hazard Analysis Tool*.⁷ was used to obtain health risk estimates associated with gasoline dispensing stations most recently modeled in 2014. Stationary sources that had reported screening levels less than 0.1 in one in a million at 50 feet from the source were excluded from this estimate. Therefore, only three of the identified seven permitted stationary source were considered to have a substantial risk. This included the City of Burlingame

¹¹ Average daily volume is estimated by multiplying peak-hour traffic counts by 10.



generators at 1079 Rollins Road approximately 525 feet northwest of the construction MEI, and gasoline dispensing facilities G8335 (new ID: 10885) and G2778 (new ID: 102778) that were approximately 570 feet southwest and 540 feet south, respectively, of the construction MEI. Health risk and PM_{2.5} concentrations from the generator and gasoline dispensing facilities at the construction MEI were adjusted using the BAAQMD's *Distance Adjustment Multiplier Tool for Diesel Internal Combustion (IC) Engines* and *Distance Adjustment Multiplier Tool for Gasoline Dispensing Facilities*⁷, respectively.

Planned and Pending Projects

In addition to the proposed project, a multi-family apartment (SummerHill Apartment) complex at 1008-1028 Carolan Avenue/1007-1025 Rollins Road is currently under construction approximately 425 feet southeast of the proposed project and is anticipated to be completed in 2020. To provide a conservative analysis it is assumed that construction of the SummerHill Apartments may overlap with construction of the proposed project and is considered a source in the cumulative risk assessment. The air quality study prepared for the SummerHill Apartments identified that project construction, unmitigated, would exceed BAAQMD's *Thresholds of Significance* for local community risks and hazards associated with TACs and PM_{2.5} for individual source and cumulative source impacts at a local level.¹² As such, the approved SummerHill Apartment project includes mitigation that is required to be implemented during construction to reduce TAC emissions. The health risk and PM_{2.5} concentrations estimated at the SummerHill Apartment project MEI during the final year of construction, with mitigation implemented, were included in the cumulative risk assessment for the currently proposed project. Because the SummerHill Apartment project MEI is not at the same location as the proposed project MEI the health risk at the proposed project's construction MEI would be lower. Therefore, use of the SummerHill project MEI in the cumulative analysis for health risk associated with construction of the proposed project is conservative.

Table 7 Cumulative Health Risks Associated with Construction Activity at the MEI

Source	Excess Cancer Risk (per million)	Chronic Health Risk ¹	PM _{2.5} µg/m ³ annual average
Unmitigated project construction	137	0.09	0.49
Mitigated project construction at 1008-1028 Carolan Avenue and 1007- 1025 Rollins Rd.	1.4	<0.01	0.02
City of Burlingame Generators at 1079 Rollins Road at ~525 feet	0.04	<0.01	0.0
Plant G8335, Gus' Unocal Service Station at ~ 570 feet	0.90	<0.01	n/a
Plant G2778, Chevron at 1095 Carolan Ave at ~540 feet	0.17	<0.01	n/a
U.S. 101 at ~ 220 feet	34.4	n/a	0.68

¹² David J. Powere & Associates, Inc. 2014. *Carolan Avenue/Rollins Road Air Quality and Greenhouse Gas Assessment*.



Broadway Road at ~850 feet	0.10	n/a	<0.01
Caltrains Rai	31.1	n/a	0.06
Cumulative Total	205.1	0.1	1.25
BAAQMD Significance Threshold	>100	>10	>0.8
Threshold Exceeded?	Yes	No	Yes

Notes: ¹ Noncancer health impacts are determined by dividing the airborne concentration at the receptor by the appropriate Reference Exposure Level (REL) for that substance. A REL is defined as the concentration at which no adverse noncancer health effects are anticipated. Because noncancer health impacts are assessed as the ratio of airborne concentration versus the REL, the resulting hazard index is unitless. See Attachment C for calculations and HRA data.

As shown in Table 7, cumulative sources of TACs would result in an exceedance of cancer health risk and annual PM_{2.5} concentrations above the cumulative significance thresholds. However, cumulative sources of TACs would not exceed the cumulative chronic health risk threshold of 10 at the MEI. Cumulative impacts would be potentially significant.

Mitigation Measures

Because project construction presents a potential excess cancer risk due to DPM exposure and an exceedance of annual PM_{2.5} concentrations, the following mitigation measure focuses on reduction of DPM and PM_{2.5} emissions for construction. The following mitigation measure is recommended by BAAQMD in *Additional Construction Mitigation Measures*¹ and would reduce the excess cancer risk at the nearest sensitive receptor to a less than significant level.

Mitigation Measure AQ-1

The project applicant shall require that all construction equipment, diesel trucks, and generators be equipped with Best Available Control Technology for emission reductions of diesel particulate matter. Project construction equipment shall be equipped with at least one of the following requirements:

1. Mobile diesel-powered off-road equipment larger than 25 horsepower and operating on the site for more than two days continuously (or 20 hours in total) shall meet, at a minimum, one of the following:
 - Engines meeting United States EPA particulate matter emissions standards for Tier 4 engines or equivalent;
 - Use of alternatively-fueled equipment (i.e., non-diesel) would meet this requirement; or
 - Other measures may include the use of added exhaust devices; or a combination of measures, provided that these measures are demonstrated to reduce community risk impacts to a less than significant level.
2. All diesel-powered off-road equipment larger than 25 horsepower must apply diesel particulate filters (DPFs) that reduce DPM emissions by at least 95 percent. The installation of DPF on heavy-duty diesel engines trap DPM and can provide up to 100 percent particulate reduction depending on the level of technology and conditions. CARB provides a list of current verified



technologies regarding particulate traps.¹³ On average Level 3 DPFs provide at least 85 percent reduction in DPM however newer technology has improved DPM reduction to greater than 95 percent.

In addition, the project applicant shall prepare a construction operations plan that includes specifications of the equipment to be used during construction including the type and number of equipment, engine tier rating, and emission standards certification. The plan shall also identify which equipment will apply DPF, the DPF level and DPF operation specifications. The purpose of the plan is to allow for a qualified air specialist to verify that one of the above stated requirements has been met prior to construction. The plan shall be submitted to the Director of Planning, Building, and Code Enforcement or Director's designee prior to the issuance of a grading permit. The plan shall be accompanied by a letter signed by a qualified air quality specialist, verifying that equipment included in the plan meets the standards set forth in this mitigation measure.

Significance After Mitigation

DPM and PM_{2.5} construction emissions after implementation of Mitigation Measure AQ-1 was estimated using CalEEMod's construction mitigation option (C-1)¹⁴. The model allows for different tiers of engines or levels of DPF to be selected for construction equipment. Table 8 and Table 9 show health risks associated with the project's construction activity as a single source and a cumulative source after incorporation of Tier 4 engines on all on-site construction equipment, as required by Mitigation Measure AQ-1.

Table 8 Health Risks Associated with Construction Activity After Mitigation

Scenario	Excess Cancer Risk (per million)	Chronic Health Risk ¹	PM _{2.5} µg/m ³ annual average
Maximum Exposed Resident	6.1	0.004	0.03
BAAQMD Significance Threshold	>10	>1	>0.3
Threshold Exceeded?	No	No	No

Notes: ¹ Noncancer health impacts are assessed are determined by dividing the airborne concentration at the receptor by the appropriate Reference Exposure Level (REL) for that substance. A REL is defined as the concentration at which no adverse noncancer health effects are anticipated. Because noncancer health impacts are assessed as the ratio of airborne concentration versus the REL, the resulting hazard index is unitless. See Attachment C for calculations and HRA data.

As shown in Table 8, implementation of Mitigation Measures AQ-1 would reduce emissions so that PM_{2.5} concentration and excess cancer risk did not exceed the single source thresholds. Emissions reduction can be achieved through either requiring all construction equipment to be equipped with a Tier 4 engine resulting in a 95 percent reduction of DPM emissions or through the installation of Level 3 DPFs on all construction equipment that is verified to reduce DPM emissions by at least 95 percent. Furthermore, as shown in Table 9 implementation of Mitigation Measure AQ-1 would reduce cumulative health risks for

¹³ <https://ww3.arb.ca.gov/diesel/verdev/vt/cvt.htm>

¹⁴ Under CalEEMod Construction Mitigation option C-1, the program allows for the engine tier of construction equipment to be selected or to apply DPFs to the construction equipment.



excess cancer risk and concentration of PM_{2.5} at the MEI. Therefore, incorporation of Mitigation Measure AQ-1 would reduce impacts to a less than-significant level.

Table 9 Cumulative Health Risks Associated with Construction Activity After Mitigation

Source	Excess Cancer Risk (per million)	Chronic Health Risk ¹	PM _{2.5} µg/m ³ annual average
Mitigated project construction	6.1	<0.01	0.03
Mitigated project construction at 1008-1028 Carolan Avenue and 1007- 1025 Rollins Rd.	1.4	<0.01	0.02
City of Burlingame Generators at 1079 Rollins Road at ~525 feet	0.04	<0.01	<0.01
Plant G8335, Gus' Unocal Service Station at ~ 570 feet	0.90	<0.01	na
Plant G2778, Chevron at 1095 Carolan Ave at ~540 feet	0.17	<0.01	na
U.S. 101 at ~ 220 feet	34.4	na	0.68
Broadway Road at ~850 feet	0.10	na	<0.01
Caltrains Rai	31.1	na	0.06
Cumulative Total	74.21	<0.01	0.79
BAAQMD Significance Threshold	>100	>10	>0.8
Threshold Exceeded?	No	No	No

Notes: ¹ Noncancer health impacts are determined by dividing the airborne concentration at the receptor by the appropriate Reference Exposure Level (REL) for that substance. A REL is defined as the concentration at which no adverse noncancer health effects are anticipated. Because noncancer health impacts are assessed as the ratio of airborne concentration versus the REL, the resulting hazard index is unitless. See Attachment C for calculations and HRA data.

Project Operation Risk and Hazard Screening

There are ten permitted emission sources identified within 1,000 feet of the project's fence line using BAAQMD's *Stationary Source Screening Analysis Tool*.¹⁵ However, six of the sources had reported screening levels of 0.0 or less than 0.01 risk at over 100 feet away from the project's fence line. Therefore, only four of the identified ten permitted stationary source were considered to have a substantial risk and included in the analysis. There are three gasoline dispensing facilities (Tool ID: G8335, G2778, and G6947) located approximately 537 feet west, 546 feet southwest, and 753 feet south of the project's fence line, respectively. There is also a facility with two generators located approximately 156 feet northwest of the project's fence line.

¹⁵ BAAQMD. 2012. *Stationary Source Screening Analysis Tool*. <http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools>



Other sources within 1,000 feet of the project fence line include U.S. 101, a major roadway with greater than 30,000 annual average daily traffic (AADT)¹⁶, and the Caltrain Railroad. U.S. 101 is located approximately 70 feet northeast of the project's northern fence line. Broadway is the only major roadway within 1,000 feet of the project site and is located approximately 505 feet northwest. In addition, the southwestern boundary of the project site is approximately 565 feet from the Caltrain rail lines which service passenger and freight trains. Caltrain is currently diesel fueled; however, development is currently underway to replace 75 percent of the Caltrain fleet with electric multiple unit (EMU) trains, leaving only 25 percent of the fleet as diesel powered. When this transition is completed local TAC emissions from the locomotives using the rail lines will be significantly reduced, thereby reducing the associated health risk due to DPM exposure from the railroad for future residents at the proposed project. . The transition to 75 percent electric locomotives is anticipated to be completed by 2023 when the project would be operational. However, the following analysis conservatively assumes that 100 percent of the Caltrain fleet is diesel fueled. For screening purposes BAAQMD uses AERMOD to model cancer risk and PM_{2.5} concentrations associated with highways, major roadways with greater than 30,000 AADT, and railroads in the Bay Area in 20 by 20-meter grids. For this analysis cancer risk and PM_{2.5} concentrations associated with the above-mentioned sources at five discreet receptors located at each corner of the project's fence line were reviewed. To provide a conservative analysis, only the greatest cancer risk and PM_{2.5} concentrations are provided in the Table 10.

As shown in Table 10, TAC emissions from U.S. 101 and Caltrain would each individually expose future residents to PM_{2.5} concentrations in excess of BAAQMD thresholds and a cancer risk greater than 10 in one million. . All other sources would not exceed the cancer risk, PM_{2.5}, or non-cancer risk at the project site. Therefore, impacts to future residents from individual sources including U.S. 101 and Caltrain would be potentially significant.

Table 10 also presents the sum of the screening data for all emission sources within 1,000 feet of the project's fence-line and represents the potential cumulative impact on future residents. In addition to U.S. 101 and Caltrain exceedance of individual thresholds for cancer risk and PM_{2.5}, the cumulative threshold for cancer risk and PM_{2.5} concentrations would be exceeded. Therefore, cumulative impacts would be potentially significant.¹⁷

Table 10 Individual and Cumulative Cancer Risk and Particulate Matter Concentrations

Source ID ¹	Description	Distance to Project Site (feet)	Cancer Risk (in 1 million)	PM _{2.5} Concentration (µg/m3)	Increased Non-Cancer Risk (Chronic Hazard Index)
N/A	U.S. 101	70	76.6	1.5	N/A
N/A	Major Roadways	505	0.1	<0.01	N/A
13079	Generator	156	0.2	<0.01	<0.01
G8335	Gasoline Station	537	1.0	N/A	<0.01

¹⁶ BAAQMD only provides screening data for roadways that have greater than 30,000 AADT.

¹⁷ Calculations used in the screening analysis do not include source-specific exhaust information such as release height, exhaust gas exit velocity, exhaust gas temperature, nor do they account for specific distances from receptors. Therefore, the resulting values are based on worst-case assumptions. A more refined analysis using source-specific exhaust parameters, site-specific meteorological data, site-specific building dimensions and locations, and actual location of source and receptors would be expected to result in lower and more accurate values than the conservative values from the screening tools.



G2778	Gasoline Station	546	0.2	N/A	<0.01
G6947	Gasoline Station	753	0.4	N/A	<0.01
Railroad	Caltrain	565	28.3	0.06	N/A
Combined Total			106.8	1.60	<0.01
BAAQMD Individual Source Screening Threshold			10	0.3	1
Individual Source Threshold Exceeded?			Yes	Yes	No
BAAQMD Cumulative Screening Threshold			100	0.8	10
Cumulative Threshold Exceeded?			Yes	Yes	No

¹ Source IDs presented here are those used in the *Stationary Source Screening Analysis Tool*. See Attachment C for screening HRA data.

N/A: not applicable; data was not provided in the BAAQMD risk screening values

Mitigation Measures

Because the screening analysis for the operation of the proposed project would potentially expose future residents to excess cancer risk and PM_{2.5} concentrations that exceed the single source and cumulative health risk thresholds Mitigation Measure AQ-2 would be required. Mitigation Measure AQ-2 is made up of two options, A and B. Option A of Mitigation Measure AQ-2 would involve refined project specific modeling, thereby providing a more accurate estimation of the potential risk to future residents; if the refined health risk modeling determines that the project poses an unacceptable risk to the future residents incorporation of appropriate ventilation design features to mitigate health risk would be required. Alternatively, Option B involves the immediate incorporation of the ventilation mitigation measures described below into the development without conducting the refined health risk assessment presented in Option A.

Mitigation Measure AQ-2

Option A:

A location-specific health risk assessment (HRA) shall be prepared by a qualified air quality specialist in accordance with the most recent Bay Area Air Quality Management District guidelines for modeling local risks and hazards. If the HRA indicates that the project would expose sensitive receptors to an unacceptable health risk from the project's proximity to U.S. 101 and Caltrain or if the cumulative health risk exceeds applicable thresholds, then mitigation (such as incorporating HVAC systems with high efficiency DPFs or MERV-13 filters into the ventilation design, weatherproofing windows and doors, installation of passive electrostatic filtering systems, and adoption of a maintenance plan for the HVAC and air filtration systems) that reduces health risk below standards recommended by the Bay Area Air Quality Management District shall be incorporated into the development prior to permit issuance.

OR,

Option B

The applicant shall submit to the City a ventilation proposal prepared by a licensed design professional for the residences that describes the ventilation design and how that design will (a) filter indoor air with an efficiency of at least 90 percent, and (b) ensure all dwelling units would be below the excess cancer risk level of 10 in 1 million established by the BAAQDM. The specific means by which these performance



standards are achieved will be determined by the applicant; however it is assumed that installation of MERV-13 filters with a Dust Spot Efficiency rating of 89 to 90 percent and an arrestance rate of over 98 percent will be required. Additional measures used to meet the aforementioned performance standards could include, but would not be limited to the following:

1. If the proposed building would use operable windows or other sources of infiltration of ambient air, the development should install a central heating, ventilation, and air conditioning (HVAC) system that includes high efficiency particulate filters.
2. If the development limits infiltration through non-operable windows, a suitable ventilation system should include filtration specifications equivalent to or better than the following: (1) American Society of Heating, Refrigerating and Air- Conditioning Engineers MERV-13 supply air filters, (2) greater than or equal to one air exchanges per hour of fresh outside filtered air, (3) greater than or equal to four air exchanges per hour recirculation, and (4) less than or equal to 0.25 air exchanges per hour in unfiltered infiltration. These types of filtration methods are capable of removing approximately 90 percent of the DPM emissions from air introduced into the HVAC system.
3. Windows and doors should be fully weatherproofed with caulking and weather-stripping that is rated to last at least 20 years. Weatherproof should be maintained and replaced by the property owner, as necessary, to ensure functionality for the lifetime of the project.
4. Where appropriate, install passive (drop-in) electrostatic filtering systems, especially those with low air velocities (*i.e.*, 1 mph)
5. Ensure an ongoing maintenance plan for the HVAC and filtration systems. Manufacturers of these types of filters recommend that they be replaced after two to three months of use.
6. The applicant should inform occupants regarding the proper use of any installed air filtration system

Significance After Mitigation

Preparation of a HRA under Mitigation Measure AQ-2 Option A would first involve refined modeling specific to the project to determine the level of health risk. Because BAAQMD's screening tools represent a reasonable worst case assumption it is possible that the results of a site specific HRA would not exceed the applicable thresholds and the additional ventilation mitigation measures discussed above would not be necessary. However, if the HRA determines that the project would expose sensitive receptors to an unacceptable health risk resulting from the project's proximity to U.S. 101 and Caltrain then Mitigation Measure AQ-2 Option A would require the incorporation of mitigation that reduces residence exposure to DPM from indoor air into the development of the project such that health risk would be reduced to an acceptable level. Mitigation Measure AQ-2 Option B similarly requires the incorporation of ventilation mitigation measures however does not include conducting an HRA first. To evaluate the level of significance after the incorporation of Mitigation Measure AQ-2, it is assumed that additional ventilation mitigation (such as installation of MERV-13 filters) would be required to be incorporated into the development whether or not the refined HRA was conducted first.

With implementation of ventilation design features specified in Mitigation Measure AQ-2, indoor air is assumed to be filtered with an efficiency of 90 percent. The recommended MERV-13 filters have a Dust



Spot Efficiency rating of 89 to 90 percent and an arrestance rate of over 98 percent.¹⁸ This modeling methodology for air filtration systems is approved by the BAAQMD in its *CEQA Guidelines*. As shown in Table 11, implementation of air filters and improved HVAC systems under Mitigation Measure AQ-2 would reduce health risk to below BAAQMD individual and cumulative thresholds and would therefore ensure the project does not expose sensitive receptors to substantial pollutant concentrations.

Table 11 Health Risks after Mitigation Measure AQ-2¹

Source	Cancer Risk (in 1 million) ²	PM _{2.5} Concentration (µg/m ³) ²
U.S. 101 Source	7.1	0.15
Caltrain Railroad Source	2.8	<0.01
BAAQMD Individual Source Screening Threshold	10	0.3
Individual Source Threshold Exceeded?	No	No
Combined Total of All Sources¹	9.9	0.15
BAAQMD Cumulative Screening Threshold	100	0.8
Cumulative Threshold Exceeded?	No	No

¹A reduction efficiency of 90 percent is assumed

²Only cancer risk and PM_{2.5} concentrations from U.S. 101 and Caltrain Railroad have been included in the reduction estimation as the risk associated with the stationary sources would become so low that they would be negligible.

Threshold 5: Would the project create objectionable odors affecting a substantial number of people?

During construction activities, only short-term, temporary odors from vehicle exhaust and construction equipment engines would occur. Construction-related odors would disperse and dissipate and would not cause substantial odors at the closest sensitive receptors (adjacent residences). In addition, construction-related odors would be short-term and would cease upon completion of construction.

The project would involve construction of a multi-family residential apartment building and would not include uses that generate substantial objectionable odors as listed on Table 3-3 in the BAAQMD *CEQA Air Quality Guidelines* or site a new odor source or receptor.¹

Conclusions

As discussed under *Project Impacts*, the project would result in potentially significant impacts related to construction emissions. Implementation of Mitigation Measure AQ-1 requiring the use of either Tier 4 construction equipment or implementation of DPFs verified to reduce DPM emissions by 95 percent would reduce the potential health impact to nearby receptors to a less-than-significant level.

Additionally, the project would result in a potentially significant impact to future residents due to exposure of TACs from U.S. 101 and the Caltrain. Therefore, implementation of Mitigation Measure AQ-2 would be required to reduce the health risk from single and cumulative sources to the future residents. Implementation of Mitigation Measure AQ-2 Option A would first provide a location-specific health risk assessment that would provide more accurate estimates of the health risk the project would expose future residents. If the HRA indicates that the project would expose future residents to an

¹⁸ http://www.mechreps.com/PDF/Merv_Rating_Chart.pdf



unacceptable health risk, then the project would be required to incorporate a ventilation system that would reduce residents exposure to DPM emissions such that the health risk impacts to future residents would be reduced to a less-than- significant level. Option B of Mitigation Measure AQ-2 involves the implementation of the ventilation mitigation measures without first conducting an HRA.

Sincerely,

Rincon Consultants, Inc.

A handwritten signature in blue ink, appearing to read "Kari Zajac".

Kari Zajac, MESM
Project Manager

A handwritten signature in blue ink, appearing to read "Abe Leider".

Abe Leider, AICP CEP
Principal

Attachments

Attachment A – Project Site Plans

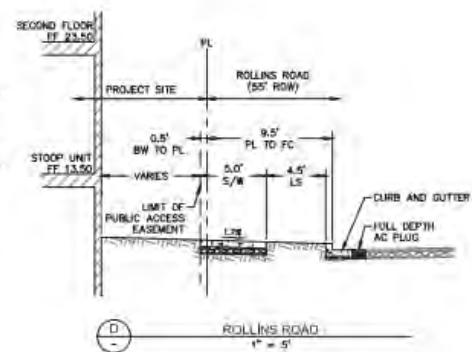
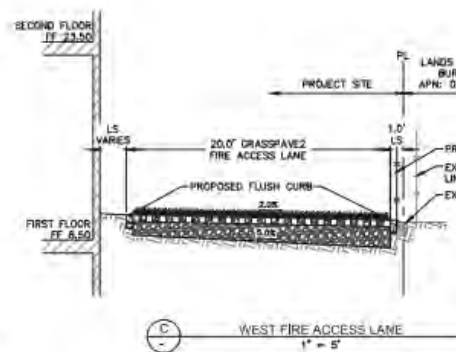
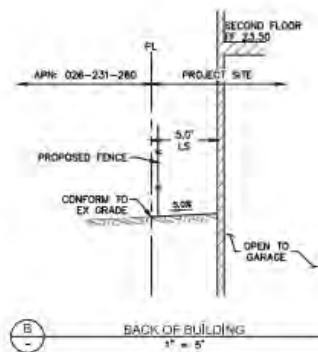
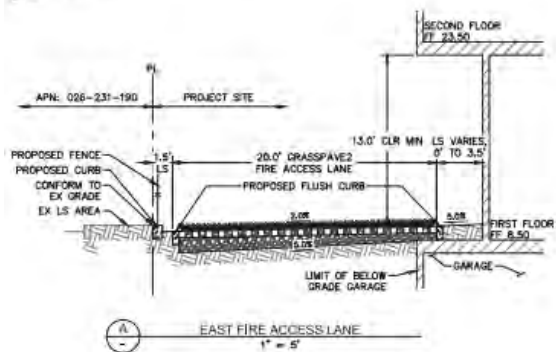
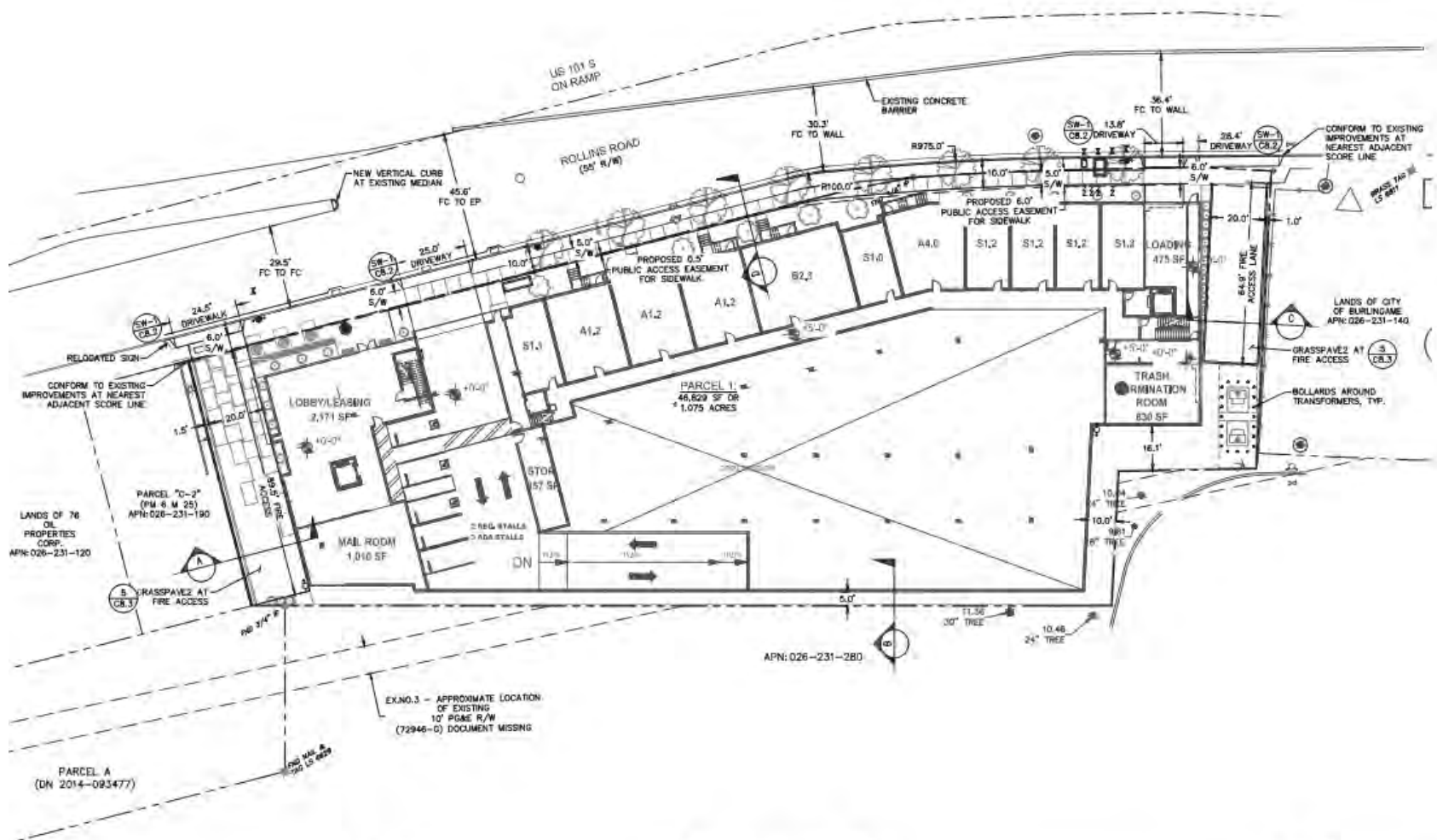
Attachment B – California Emissions Estimator Model (CalEEMod) Results

Attachment C – Health Risk Assessment Calculations and Screening Values



Attachment A

Project Site Plans



Source: BKF Engineers. 2018. Preliminary Site Plan.



Attachment B

California Emissions Estimator Model (CalEEMod) Results

1095 Rollin Roads - San Mateo County, Annual

1095 Rollin Roads

San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	28.60	1000sqft	0.00	28,600.00	0
-----	-----	-----	-----	-----	-----
Apartment Mid Rise	150.00	Dwelling Unit	1.07	166,400.00	429

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	70
Climate Zone	5			Operational Year	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics -

Land Use - Source: planning submittal 9.14.18; building gross sf = 195,000 sf (-parking sf); site area = 46,829 sf (1.075 acres); although there are 192 parking spots 175 are stackers stalls, parking garage sf provided by applicant. See site plans for details.

Construction Phase - Applicant provided construction schedule

Off-road Equipment - Provided by applicant; hours/day = avg hours per day

Off-road Equipment - Provided by applicant; hours/day = avg hours per day

Off-road Equipment - Provided by applicant; hours/day = avg hours per day

Off-road Equipment - Provided by applicant; hours/day = avg hours per day

Off-road Equipment - Provided by applicant; hours/day = avg hours per day

Off-road Equipment - Provided by applicant; hours/day = avg hours per day

Trips and VMT - Applicant provided number of worker round trips per work day

Demolition - Applicant provided.

Grading - Applicant provided: total cubic yards of soil exported = 23,500 cy.

Architectural Coating - BAAQMD Regulation 8 Rule 3: Architectural coatings (applied to interior, exterior and "traffic marking coatings" for parking)

Vehicle Trips - Applicant provided traffic study: avg dail trip rate = 5.44; avg trip length = 5.26 miles

Woodstoves - Applicant provided = 1 natural gas fireplace, 1 natural gas fire pit, 4 natural gas BBQ (all included under # gas fireplaces)

Area Coating - BAAQMD Regulation 8 rule 3

Construction Off-road Equipment Mitigation - DPM mitigation

Mobile Land Use Mitigation - Applicant provided information for LUT-1 (150 dwellings/1.075 acres) and LUT-6;
<https://ww3.arb.ca.gov/cc/capandtrade/auctionproceeds/kml/jobcentermap.htm> for LUT-4 and google maps for LUT-5

Area Mitigation - Architectural coating already reduced per BAAQMD regulation 8 rule 3

Energy Mitigation - Applicant plans include Energy Star-rated appliances installed at amenities clubhouse and in all apartment units.

Water Mitigation - Applicant provided information indicates that all plumbing fixtures will meet CalGreen and/or EPA's WaterSense low flow fixture rates.
Landscaping with be drought tolerate and smart programmable controllers will be used for irrigation

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Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	150.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	100
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_EF_Parking	150	100
tblAreaCoating	Area_EF_Residential_Exterior	150	100
tblAreaCoating	Area_EF_Residential_Interior	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
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	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00

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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	10.00	196.00
tblConstructionPhase	NumDays	200.00	326.00
tblConstructionPhase	NumDays	20.00	46.00
tblConstructionPhase	NumDays	4.00	51.00
tblConstructionPhase	NumDays	10.00	21.00
tblConstructionPhase	NumDays	2.00	6.00
tblFireplaces	NumberGas	22.50	6.00
tblFireplaces	NumberNoFireplace	6.00	0.00
tblFireplaces	NumberWood	25.50	0.00
tblGrading	AcresOfGrading	0.00	1.35

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tblGrading	AcresOfGrading	1.35	0.00
tblGrading	MaterialExported	0.00	23,500.00
tblLandUse	LandUseSquareFeet	150,000.00	166,400.00
tblLandUse	LotAcreage	0.66	0.00
tblLandUse	LotAcreage	3.95	1.07
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	8.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	6.00	4.10
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.70
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	8.00	3.60
tblOffRoadEquipment	UsageHours	6.00	2.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.80
tblOffRoadEquipment	UsageHours	8.00	1.80
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	7.00	2.40
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	8.00	2.70
tblOffRoadEquipment	UsageHours	7.00	3.60
tblOffRoadEquipment	UsageHours	8.00	1.60

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tblOffRoadEquipment	UsageHours	8.00	2.40
tblOffRoadEquipment	UsageHours	8.00	1.70
tblTripsAndVMT	WorkerTripNumber	13.00	35.00
tblTripsAndVMT	WorkerTripNumber	10.00	35.00
tblTripsAndVMT	WorkerTripNumber	20.00	35.00
tblTripsAndVMT	WorkerTripNumber	120.00	35.00
tblTripsAndVMT	WorkerTripNumber	24.00	35.00
tblTripsAndVMT	WorkerTripNumber	13.00	35.00
tblVehicleTrips	HO_TL	5.70	5.26
tblVehicleTrips	HS_TL	4.80	5.26
tblVehicleTrips	HW_TL	10.80	5.26
tblVehicleTrips	ST_TR	6.39	5.44
tblVehicleTrips	SU_TR	5.86	5.44
tblVehicleTrips	WD_TR	6.65	5.44
tblWoodstoves	NumberCatalytic	3.00	0.00
tblWoodstoves	NumberNoncatalytic	3.00	0.00

2.0 Emissions Summary

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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					
2020	0.0594	0.8974	0.6263	2.1000e-003	0.0652	0.0208	0.0861	0.0175	0.0195	0.0370	0.0000	204.0144	204.0144	0.0317	0.0000	204.8059
2021	0.6917	1.1726	1.2777	2.8600e-003	0.0759	0.0539	0.1297	0.0206	0.0534	0.0740	0.0000	255.5617	255.5617	0.0200	0.0000	256.0607
2022	0.1508	0.2162	0.2686	5.7000e-004	0.0153	0.0101	0.0254	4.1200e-003	0.0100	0.0142	0.0000	50.3361	50.3361	4.0000e-003	0.0000	50.4362
Maximum	0.6917	1.1726	1.2777	2.8600e-003	0.0759	0.0539	0.1297	0.0206	0.0534	0.0740	0.0000	255.5617	255.5617	0.0317	0.0000	256.0607

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					
2020	0.0284	0.5715	0.6766	2.1000e-003	0.0545	2.7900e-003	0.0573	0.0147	2.7000e-003	0.0174	0.0000	204.0144	204.0144	0.0317	0.0000	204.8058
2021	0.5802	0.4503	1.2668	2.8600e-003	0.0759	3.1700e-003	0.0790	0.0206	3.1100e-003	0.0237	0.0000	255.5615	255.5615	0.0200	0.0000	256.0606
2022	0.1293	0.0672	0.2707	5.7000e-004	0.0153	6.4000e-004	0.0159	4.1200e-003	6.3000e-004	4.7500e-003	0.0000	50.3361	50.3361	4.0000e-003	0.0000	50.4362
Maximum	0.5802	0.5715	1.2668	2.8600e-003	0.0759	3.1700e-003	0.0790	0.0206	3.1100e-003	0.0237	0.0000	255.5615	255.5615	0.0317	0.0000	256.0606

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	18.18	52.36	-1.91	0.00	6.88	92.22	36.89	6.63	92.23	63.35	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	7-1-2020	9-30-2020	0.4075	0.1795
2	10-1-2020	12-31-2020	0.5395	0.4142
3	1-1-2021	3-31-2021	0.1359	0.1008
4	4-1-2021	6-30-2021	0.3586	0.2058
5	7-1-2021	9-30-2021	0.6769	0.3571
6	10-1-2021	12-31-2021	0.6795	0.3597
7	1-1-2022	3-31-2022	0.3787	0.2033
		Highest	0.6795	0.4142

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2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.7509	0.0135	1.1146	6.0000e-005		6.2200e-003	6.2200e-003		6.2200e-003	6.2200e-003	0.0000	2.5689	2.5689	1.7700e-003	1.0000e-005	2.6171
Energy	7.0600e-003	0.0603	0.0257	3.9000e-004		4.8800e-003	4.8800e-003		4.8800e-003	4.8800e-003	0.0000	302.8727	302.8727	0.0119	3.4600e-003	304.2010
Mobile	0.1608	0.4260	1.6333	5.3800e-003	0.5145	4.4500e-003	0.5189	0.1383	4.1400e-003	0.1424	0.0000	493.0410	493.0410	0.0183	0.0000	493.4978
Waste						0.0000	0.0000		0.0000	0.0000	14.0064	0.0000	14.0064	0.8278	0.0000	34.7002
Water						0.0000	0.0000		0.0000	0.0000	3.1006	21.6574	24.7580	0.3194	7.7200e-003	35.0451
Total	0.9188	0.4998	2.7735	5.8300e-003	0.5145	0.0156	0.5300	0.1383	0.0152	0.1535	17.1069	820.1400	837.2469	1.1791	0.0112	870.0611

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2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.7509	0.0135	1.1146	6.0000e-005		6.2200e-003	6.2200e-003		6.2200e-003	6.2200e-003	0.0000	2.5689	2.5689	1.7700e-003	1.0000e-005	2.6171
Energy	7.0600e-003	0.0603	0.0257	3.9000e-004		4.8800e-003	4.8800e-003		4.8800e-003	4.8800e-003	0.0000	298.2404	298.2404	0.0117	3.4200e-003	299.5504
Mobile	0.1342	0.3150	1.0778	2.8200e-003	0.2559	2.6100e-003	0.2585	0.0688	2.4200e-003	0.0712	0.0000	258.5372	258.5372	0.0108	0.0000	258.8063
Waste						0.0000	0.0000		0.0000	0.0000	14.0064	0.0000	14.0064	0.8278	0.0000	34.7002
Water						0.0000	0.0000		0.0000	0.0000	2.4804	18.1980	20.6784	0.2556	6.1900e-003	28.9115
Total	0.8922	0.3888	2.2180	3.2700e-003	0.2559	0.0137	0.2696	0.0688	0.0135	0.0823	16.4868	577.5444	594.0312	1.1075	9.6200e-003	624.5854

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	2.90	22.21	20.03	43.91	50.26	11.83	49.13	50.26	11.29	46.38	3.62	29.58	29.05	6.07	14.03	28.21

3.0 Construction Detail**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	7/1/2020	9/2/2020	5	46	
2	Site Preparation	Site Preparation	9/3/2020	9/10/2020	5	6	
3	Grading	Grading	9/11/2020	11/20/2020	5	51	
4	Building Construction	Building Construction	11/23/2020	2/21/2022	5	326	
5	Architectural Coating	Architectural Coating	5/24/2021	2/21/2022	5	196	
6	Paving	Paving	2/22/2022	3/22/2022	5	21	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.35

Acres of Paving: 0

Residential Indoor: 336,960; Residential Outdoor: 112,320; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 1,716 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	0.70	81	0.73
Demolition	Excavators	2	6.00	158	0.38
Demolition	Rubber Tired Dozers	1	1.80	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	2.70	97	0.37
Site Preparation	Graders	1	3.60	187	0.41
Site Preparation	Rubber Tired Dozers	1	2.40	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	2.40	97	0.37
Grading	Bore/Drill Rigs	1	1.20	221	0.50
Grading	Bore/Drill Rigs	1	0.60	221	0.50
Grading	Excavators	1	5.40	158	0.38
Grading	Generator Sets	1	4.00	84	0.74
Grading	Graders	1	0.00	187	0.41
Grading	Rubber Tired Dozers	1	0.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	3.60	97	0.37
Building Construction	Cranes	1	0.00	231	0.29
Building Construction	Forklifts	1	4.00	89	0.20
Building Construction	Generator Sets	1	0.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	0.00	97	0.37
Building Construction	Welders	3	1.70	46	0.45
Paving	Cement and Mortar Mixers	1	0.00	9	0.56
Paving	Pavers	1	2.00	130	0.42
Paving	Paving Equipment	1	0.00	132	0.36
Paving	Rollers	1	0.80	80	0.38
Paving	Tractors/Loaders/Backhoes	1	1.60	97	0.37
Architectural Coating	Aerial Lifts	2	0.40	63	0.31
Architectural Coating	Air Compressors	8	4.10	78	0.48

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Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	35.00	0.00	112.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	4	35.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	35.00	0.00	2,938.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	35.00	21.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	35.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	10	35.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 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					
Fugitive Dust					0.0121	0.0000	0.0121	1.8300e-003	0.0000	1.8300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0165	0.1649	0.1592	2.6000e-004		8.3400e-003	8.3400e-003		7.7000e-003	7.7000e-003	0.0000	22.7368	22.7368	7.0700e-003	0.0000	22.9136
Total	0.0165	0.1649	0.1592	2.6000e-004	0.0121	8.3400e-003	0.0204	1.8300e-003	7.7000e-003	9.5300e-003	0.0000	22.7368	22.7368	7.0700e-003	0.0000	22.9136

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3.2 Demolition - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0000e-004	0.0181	7.5300e-003	5.0000e-005	9.4000e-004	6.0000e-005	9.9000e-004	2.6000e-004	5.0000e-005	3.1000e-004	0.0000	4.6778	4.6778	5.8000e-004	0.0000	4.6924
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-003	1.4900e-003	0.0157	6.0000e-005	6.3400e-003	4.0000e-005	6.3800e-003	1.6900e-003	4.0000e-005	1.7200e-003	0.0000	5.2770	5.2770	1.0000e-004	0.0000	5.2796
Total	2.7000e-003	0.0196	0.0232	1.1000e-004	7.2800e-003	1.0000e-004	7.3700e-003	1.9500e-003	9.0000e-005	2.0300e-003	0.0000	9.9548	9.9548	6.8000e-004	0.0000	9.9719

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					5.4300e-003	0.0000	5.4300e-003	8.2000e-004	0.0000	8.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1500e-003	0.0137	0.1810	2.6000e-004		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004	0.0000	22.7368	22.7368	7.0700e-003	0.0000	22.9136
Total	3.1500e-003	0.0137	0.1810	2.6000e-004	5.4300e-003	4.2000e-004	5.8500e-003	8.2000e-004	4.2000e-004	1.2400e-003	0.0000	22.7368	22.7368	7.0700e-003	0.0000	22.9136

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3.2 Demolition - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0000e-004	0.0181	7.5300e-003	5.0000e-005	9.4000e-004	6.0000e-005	9.9000e-004	2.6000e-004	5.0000e-005	3.1000e-004	0.0000	4.6778	4.6778	5.8000e-004	0.0000	4.6924
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-003	1.4900e-003	0.0157	6.0000e-005	6.3400e-003	4.0000e-005	6.3800e-003	1.6900e-003	4.0000e-005	1.7200e-003	0.0000	5.2770	5.2770	1.0000e-004	0.0000	5.2796
Total	2.7000e-003	0.0196	0.0232	1.1000e-004	7.2800e-003	1.0000e-004	7.3700e-003	1.9500e-003	9.0000e-005	2.0300e-003	0.0000	9.9548	9.9548	6.8000e-004	0.0000	9.9719

3.3 Site Preparation - 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					
Fugitive Dust					5.4200e-003	0.0000	5.4200e-003	2.9800e-003	0.0000	2.9800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9900e-003	0.0225	0.0103	2.0000e-005		1.0100e-003	1.0100e-003		9.3000e-004	9.3000e-004	0.0000	1.9538	1.9538	6.3000e-004	0.0000	1.9696
Total	1.9900e-003	0.0225	0.0103	2.0000e-005	5.4200e-003	1.0100e-003	6.4300e-003	2.9800e-003	9.3000e-004	3.9100e-003	0.0000	1.9538	1.9538	6.3000e-004	0.0000	1.9696

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3.3 Site Preparation - 2020**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	2.9000e-004	1.9000e-004	2.0400e-003	1.0000e-005	8.3000e-004	1.0000e-005	8.3000e-004	2.2000e-004	0.0000	2.2000e-004	0.0000	0.6883	0.6883	1.0000e-005	0.0000	0.6886
Total	2.9000e-004	1.9000e-004	2.0400e-003	1.0000e-005	8.3000e-004	1.0000e-005	8.3000e-004	2.2000e-004	0.0000	2.2000e-004	0.0000	0.6883	0.6883	1.0000e-005	0.0000	0.6886

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					2.4400e-003	0.0000	2.4400e-003	1.3400e-003	0.0000	1.3400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7000e-004	1.1800e-003	0.0117	2.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	1.9538	1.9538	6.3000e-004	0.0000	1.9696
Total	2.7000e-004	1.1800e-003	0.0117	2.0000e-005	2.4400e-003	4.0000e-005	2.4800e-003	1.3400e-003	4.0000e-005	1.3800e-003	0.0000	1.9538	1.9538	6.3000e-004	0.0000	1.9696

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3.3 Site Preparation - 2020**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	2.9000e-004	1.9000e-004	2.0400e-003	1.0000e-005	8.3000e-004	1.0000e-005	8.3000e-004	2.2000e-004	0.0000	2.2000e-004	0.0000	0.6883	0.6883	1.0000e-005	0.0000	0.6886
Total	2.9000e-004	1.9000e-004	2.0400e-003	1.0000e-005	8.3000e-004	1.0000e-005	8.3000e-004	2.2000e-004	0.0000	2.2000e-004	0.0000	0.6883	0.6883	1.0000e-005	0.0000	0.6886

3.4 Grading - 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					
Fugitive Dust					2.0400e-003	0.0000	2.0400e-003	2.8000e-004	0.0000	2.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0157	0.1544	0.1678	3.0000e-004		8.1500e-003	8.1500e-003		7.7000e-003	7.7000e-003	0.0000	26.0132	26.0132	6.4900e-003	0.0000	26.1754
Total	0.0157	0.1544	0.1678	3.0000e-004	2.0400e-003	8.1500e-003	0.0102	2.8000e-004	7.7000e-003	7.9800e-003	0.0000	26.0132	26.0132	6.4900e-003	0.0000	26.1754

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3.4 Grading - 2020**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	0.0130	0.4741	0.1976	1.1900e-003	0.0246	1.4700e-003	0.0261	6.7500e-003	1.4100e-003	8.1600e-003	0.0000	122.7076	122.7076	0.0153	0.0000	123.0905
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4300e-003	1.6500e-003	0.0174	6.0000e-005	7.0300e-003	4.0000e-005	7.0700e-003	1.8700e-003	4.0000e-005	1.9100e-003	0.0000	5.8506	5.8506	1.1000e-004	0.0000	5.8535
Total	0.0154	0.4757	0.2150	1.2500e-003	0.0316	1.5100e-003	0.0331	8.6200e-003	1.4500e-003	0.0101	0.0000	128.5582	128.5582	0.0154	0.0000	128.9440

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					9.2000e-004	0.0000	9.2000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4700e-003	0.0151	0.1975	3.0000e-004		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	26.0132	26.0132	6.4900e-003	0.0000	26.1754
Total	3.4700e-003	0.0151	0.1975	3.0000e-004	9.2000e-004	4.6000e-004	1.3800e-003	1.3000e-004	4.6000e-004	5.9000e-004	0.0000	26.0132	26.0132	6.4900e-003	0.0000	26.1754

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3.4 Grading - 2020**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	0.0130	0.4741	0.1976	1.1900e-003	0.0246	1.4700e-003	0.0261	6.7500e-003	1.4100e-003	8.1600e-003	0.0000	122.7076	122.7076	0.0153	0.0000	123.0905
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4300e-003	1.6500e-003	0.0174	6.0000e-005	7.0300e-003	4.0000e-005	7.0700e-003	1.8700e-003	4.0000e-005	1.9100e-003	0.0000	5.8506	5.8506	1.1000e-004	0.0000	5.8535
Total	0.0154	0.4757	0.2150	1.2500e-003	0.0316	1.5100e-003	0.0331	8.6200e-003	1.4500e-003	0.0101	0.0000	128.5582	128.5582	0.0154	0.0000	128.9440

3.5 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	4.2100e-003	0.0239	0.0249	3.0000e-005		1.5000e-003	1.5000e-003		1.4500e-003	1.4500e-003	0.0000	2.7135	2.7135	5.7000e-004	0.0000	2.7278
Total	4.2100e-003	0.0239	0.0249	3.0000e-005		1.5000e-003	1.5000e-003		1.4500e-003	1.4500e-003	0.0000	2.7135	2.7135	5.7000e-004	0.0000	2.7278

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3.5 Building Construction - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1800e-003	0.0353	0.0141	8.0000e-005	1.9800e-003	1.8000e-004	2.1600e-003	5.7000e-004	1.7000e-004	7.4000e-004	0.0000	8.0691	8.0691	7.0000e-004	0.0000	8.0866
Worker	1.3800e-003	9.4000e-004	9.8800e-003	4.0000e-005	4.0000e-003	3.0000e-005	4.0200e-003	1.0600e-003	2.0000e-005	1.0900e-003	0.0000	3.3268	3.3268	6.0000e-005	0.0000	3.3284
Total	2.5600e-003	0.0363	0.0239	1.2000e-004	5.9800e-003	2.1000e-004	6.1800e-003	1.6300e-003	1.9000e-004	1.8300e-003	0.0000	11.3959	11.3959	7.6000e-004	0.0000	11.4150

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	5.4000e-004	9.8700e-003	0.0223	3.0000e-005		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	2.7135	2.7135	5.7000e-004	0.0000	2.7278
Total	5.4000e-004	9.8700e-003	0.0223	3.0000e-005		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	2.7135	2.7135	5.7000e-004	0.0000	2.7278

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3.5 Building Construction - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1800e-003	0.0353	0.0141	8.0000e-005	1.9800e-003	1.8000e-004	2.1600e-003	5.7000e-004	1.7000e-004	7.4000e-004	0.0000	8.0691	8.0691	7.0000e-004	0.0000	8.0866
Worker	1.3800e-003	9.4000e-004	9.8800e-003	4.0000e-005	4.0000e-003	3.0000e-005	4.0200e-003	1.0600e-003	2.0000e-005	1.0900e-003	0.0000	3.3268	3.3268	6.0000e-005	0.0000	3.3284
Total	2.5600e-003	0.0363	0.0239	1.2000e-004	5.9800e-003	2.1000e-004	6.1800e-003	1.6300e-003	1.9000e-004	1.8300e-003	0.0000	11.3959	11.3959	7.6000e-004	0.0000	11.4150

3.5 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0336	0.2025	0.2192	3.1000e-004		0.0116	0.0116		0.0112	0.0112	0.0000	24.4213	24.4213	4.8700e-003	0.0000	24.5431
Total	0.0336	0.2025	0.2192	3.1000e-004		0.0116	0.0116		0.0112	0.0112	0.0000	24.4213	24.4213	4.8700e-003	0.0000	24.5431

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3.5 Building Construction - 2021**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	8.7500e-003	0.2854	0.1225	7.2000e-004	0.0179	6.5000e-004	0.0185	5.1700e-003	6.3000e-004	5.7900e-003	0.0000	71.7198	71.7198	6.2000e-003	0.0000	71.8747
Worker	0.0116	7.5700e-003	0.0821	3.2000e-004	0.0360	2.2000e-004	0.0362	9.5700e-003	2.0000e-004	9.7700e-003	0.0000	28.8762	28.8762	5.2000e-004	0.0000	28.8893
Total	0.0204	0.2930	0.2046	1.0400e-003	0.0538	8.7000e-004	0.0547	0.0147	8.3000e-004	0.0156	0.0000	100.5960	100.5960	6.7200e-003	0.0000	100.7641

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.8700e-003	0.0889	0.2003	3.1000e-004		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	24.4213	24.4213	4.8700e-003	0.0000	24.5431
Total	4.8700e-003	0.0889	0.2003	3.1000e-004		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	24.4213	24.4213	4.8700e-003	0.0000	24.5431

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3.5 Building Construction - 2021**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	8.7500e-003	0.2854	0.1225	7.2000e-004	0.0179	6.5000e-004	0.0185	5.1700e-003	6.3000e-004	5.7900e-003	0.0000	71.7198	71.7198	6.2000e-003	0.0000	71.8747
Worker	0.0116	7.5700e-003	0.0821	3.2000e-004	0.0360	2.2000e-004	0.0362	9.5700e-003	2.0000e-004	9.7700e-003	0.0000	28.8762	28.8762	5.2000e-004	0.0000	28.8893
Total	0.0204	0.2930	0.2046	1.0400e-003	0.0538	8.7000e-004	0.0547	0.0147	8.3000e-004	0.0156	0.0000	100.5960	100.5960	6.7200e-003	0.0000	100.7641

3.5 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.2000e-003	0.0263	0.0298	4.0000e-005		1.3600e-003	1.3600e-003		1.3100e-003	1.3100e-003	0.0000	3.3685	3.3685	6.5000e-004	0.0000	3.3847
Total	4.2000e-003	0.0263	0.0298	4.0000e-005		1.3600e-003	1.3600e-003		1.3100e-003	1.3100e-003	0.0000	3.3685	3.3685	6.5000e-004	0.0000	3.3847

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3.5 Building Construction - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1300e-003	0.0370	0.0169	1.0000e-004	2.4600e-003	8.0000e-005	2.5400e-003	7.1000e-004	8.0000e-005	7.9000e-004	0.0000	9.7652	9.7652	8.5000e-004	0.0000	9.7864
Worker	1.5200e-003	9.4000e-004	0.0105	4.0000e-005	4.9600e-003	3.0000e-005	4.9900e-003	1.3200e-003	3.0000e-005	1.3500e-003	0.0000	3.8372	3.8372	7.0000e-005	0.0000	3.8389
Total	2.6500e-003	0.0380	0.0274	1.4000e-004	7.4200e-003	1.1000e-004	7.5300e-003	2.0300e-003	1.1000e-004	2.1400e-003	0.0000	13.6024	13.6024	9.2000e-004	0.0000	13.6253

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7000e-004	0.0123	0.0276	4.0000e-005		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	3.3685	3.3685	6.5000e-004	0.0000	3.3847
Total	6.7000e-004	0.0123	0.0276	4.0000e-005		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	3.3685	3.3685	6.5000e-004	0.0000	3.3847

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3.5 Building Construction - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1300e-003	0.0370	0.0169	1.0000e-004	2.4600e-003	8.0000e-005	2.5400e-003	7.1000e-004	8.0000e-005	7.9000e-004	0.0000	9.7652	9.7652	8.5000e-004	0.0000	9.7864
Worker	1.5200e-003	9.4000e-004	0.0105	4.0000e-005	4.9600e-003	3.0000e-005	4.9900e-003	1.3200e-003	3.0000e-005	1.3500e-003	0.0000	3.8372	3.8372	7.0000e-005	0.0000	3.8389
Total	2.6500e-003	0.0380	0.0274	1.4000e-004	7.4200e-003	1.1000e-004	7.5300e-003	2.0300e-003	1.1000e-004	2.1400e-003	0.0000	13.6024	13.6024	9.2000e-004	0.0000	13.6253

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	0.5345					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0960	0.6725	0.8036	1.3100e-003		0.0412	0.0412		0.0412	0.0412	0.0000	112.8425	112.8425	8.0400e-003	0.0000	113.0436
Total	0.6305	0.6725	0.8036	1.3100e-003		0.0412	0.0412		0.0412	0.0412	0.0000	112.8425	112.8425	8.0400e-003	0.0000	113.0436

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3.6 Architectural Coating - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.1400e-003	4.6400e-003	0.0503	2.0000e-004	0.0220	1.3000e-004	0.0222	5.8700e-003	1.2000e-004	5.9900e-003	0.0000	17.7019	17.7019	3.2000e-004	0.0000	17.7099
Total	7.1400e-003	4.6400e-003	0.0503	2.0000e-004	0.0220	1.3000e-004	0.0222	5.8700e-003	1.2000e-004	5.9900e-003	0.0000	17.7019	17.7019	3.2000e-004	0.0000	17.7099

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	0.5345					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.0639	0.8116	1.3100e-003		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	112.8424	112.8424	8.0400e-003	0.0000	113.0435
Total	0.5478	0.0639	0.8116	1.3100e-003		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	112.8424	112.8424	8.0400e-003	0.0000	113.0435

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3.6 Architectural Coating - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.1400e-003	4.6400e-003	0.0503	2.0000e-004	0.0220	1.3000e-004	0.0222	5.8700e-003	1.2000e-004	5.9900e-003	0.0000	17.7019	17.7019	3.2000e-004	0.0000	17.7099
Total	7.1400e-003	4.6400e-003	0.0503	2.0000e-004	0.0220	1.3000e-004	0.0222	5.8700e-003	1.2000e-004	5.9900e-003	0.0000	17.7019	17.7019	3.2000e-004	0.0000	17.7099

3.6 Architectural Coating - 2022**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	0.1203					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0202	0.1396	0.1804	3.0000e-004		8.0600e-003	8.0600e-003		8.0600e-003	8.0600e-003	0.0000	25.3896	25.3896	1.7200e-003	0.0000	25.4326
Total	0.1405	0.1396	0.1804	3.0000e-004		8.0600e-003	8.0600e-003		8.0600e-003	8.0600e-003	0.0000	25.3896	25.3896	1.7200e-003	0.0000	25.4326

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3.6 Architectural Coating - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5200e-003	9.4000e-004	0.0105	4.0000e-005	4.9600e-003	3.0000e-005	4.9900e-003	1.3200e-003	3.0000e-005	1.3500e-003	0.0000	3.8372	3.8372	7.0000e-005	0.0000	3.8389
Total	1.5200e-003	9.4000e-004	0.0105	4.0000e-005	4.9600e-003	3.0000e-005	4.9900e-003	1.3200e-003	3.0000e-005	1.3500e-003	0.0000	3.8372	3.8372	7.0000e-005	0.0000	3.8389

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	0.1203					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0000e-003	0.0144	0.1826	3.0000e-004		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	25.3895	25.3895	1.7200e-003	0.0000	25.4326
Total	0.1233	0.0144	0.1826	3.0000e-004		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	25.3895	25.3895	1.7200e-003	0.0000	25.4326

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3.6 Architectural Coating - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5200e-003	9.4000e-004	0.0105	4.0000e-005	4.9600e-003	3.0000e-005	4.9900e-003	1.3200e-003	3.0000e-005	1.3500e-003	0.0000	3.8372	3.8372	7.0000e-005	0.0000	3.8389
Total	1.5200e-003	9.4000e-004	0.0105	4.0000e-005	4.9600e-003	3.0000e-005	4.9900e-003	1.3200e-003	3.0000e-005	1.3500e-003	0.0000	3.8372	3.8372	7.0000e-005	0.0000	3.8389

3.7 Paving - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.0600e-003	0.0108	0.0142	2.0000e-005		5.6000e-004	5.6000e-004		5.1000e-004	5.1000e-004	0.0000	1.9001	1.9001	6.1000e-004	0.0000	1.9154
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.0600e-003	0.0108	0.0142	2.0000e-005		5.6000e-004	5.6000e-004		5.1000e-004	5.1000e-004	0.0000	1.9001	1.9001	6.1000e-004	0.0000	1.9154

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3.7 Paving - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.8000e-004	5.5000e-004	6.1400e-003	2.0000e-005	2.8900e-003	2.0000e-005	2.9100e-003	7.7000e-004	2.0000e-005	7.9000e-004	0.0000	2.2384	2.2384	4.0000e-005	0.0000	2.2393
Total	8.8000e-004	5.5000e-004	6.1400e-003	2.0000e-005	2.8900e-003	2.0000e-005	2.9100e-003	7.7000e-004	2.0000e-005	7.9000e-004	0.0000	2.2384	2.2384	4.0000e-005	0.0000	2.2393

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	2.7000e-004	1.1500e-003	0.0164	2.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	1.9001	1.9001	6.1000e-004	0.0000	1.9154
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.7000e-004	1.1500e-003	0.0164	2.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	1.9001	1.9001	6.1000e-004	0.0000	1.9154

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3.7 Paving - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.8000e-004	5.5000e-004	6.1400e-003	2.0000e-005	2.8900e-003	2.0000e-005	2.9100e-003	7.7000e-004	2.0000e-005	7.9000e-004	0.0000	2.2384	2.2384	4.0000e-005	0.0000	2.2393
Total	8.8000e-004	5.5000e-004	6.1400e-003	2.0000e-005	2.8900e-003	2.0000e-005	2.9100e-003	7.7000e-004	2.0000e-005	7.9000e-004	0.0000	2.2384	2.2384	4.0000e-005	0.0000	2.2393

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Increase Density

Improve Destination Accessibility

Increase Transit Accessibility

Integrate Below Market Rate Housing

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.1342	0.3150	1.0778	2.8200e-003	0.2559	2.6100e-003	0.2585	0.0688	2.4200e-003	0.0712	0.0000	258.5372	258.5372	0.0108	0.0000	258.8063
Unmitigated	0.1608	0.4260	1.6333	5.3800e-003	0.5145	4.4500e-003	0.5189	0.1383	4.1400e-003	0.1424	0.0000	493.0410	493.0410	0.0183	0.0000	493.4978

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	816.00	816.00	816.00	1,387,473	690,152
Enclosed Parking with Elevator	0.00	0.00	0.00		
Total	816.00	816.00	816.00	1,387,473	690,152

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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	5.26	5.26	5.26	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

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.470625	0.050338	0.265549	0.140745	0.017339	0.006996	0.024054	0.006595	0.004215	0.003104	0.009159	0.000488	0.000793
Enclosed Parking with Elevator	0.470625	0.050338	0.265549	0.140745	0.017339	0.006996	0.024054	0.006595	0.004215	0.003104	0.009159	0.000488	0.000793

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5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	228.3570	228.3570	0.0103	2.1400e-003	229.2518
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	232.9894	232.9894	0.0105	2.1800e-003	233.9023
NaturalGas Mitigated	7.0600e-003	0.0603	0.0257	3.9000e-004		4.8800e-003	4.8800e-003		4.8800e-003	4.8800e-003	0.0000	69.8834	69.8834	1.3400e-003	1.2800e-003	70.2986
NaturalGas Unmitigated	7.0600e-003	0.0603	0.0257	3.9000e-004		4.8800e-003	4.8800e-003		4.8800e-003	4.8800e-003	0.0000	69.8834	69.8834	1.3400e-003	1.2800e-003	70.2986

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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	1.30956e+006	7.0600e-003	0.0603	0.0257	3.9000e-004		4.8800e-003	4.8800e-003		4.8800e-003	4.8800e-003	0.0000	69.8834	69.8834	1.3400e-003	1.2800e-003	70.2986
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
Total		7.0600e-003	0.0603	0.0257	3.9000e-004		4.8800e-003	4.8800e-003		4.8800e-003	4.8800e-003	0.0000	69.8834	69.8834	1.3400e-003	1.2800e-003	70.2986

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	1.30956e+006	7.0600e-003	0.0603	0.0257	3.9000e-004		4.8800e-003	4.8800e-003		4.8800e-003	4.8800e-003	0.0000	69.8834	69.8834	1.3400e-003	1.2800e-003	70.2986
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
Total		7.0600e-003	0.0603	0.0257	3.9000e-004		4.8800e-003	4.8800e-003		4.8800e-003	4.8800e-003	0.0000	69.8834	69.8834	1.3400e-003	1.2800e-003	70.2986

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5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	633299	184.2338	8.3300e-003	1.7200e-003	184.9557
Enclosed Parking with Elevator	167596	48.7556	2.2000e-003	4.6000e-004	48.9466
Total		232.9894	0.0105	2.1800e-003	233.9023

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	617375	179.6014	8.1200e-003	1.6800e-003	180.3051
Enclosed Parking with Elevator	167596	48.7556	2.2000e-003	4.6000e-004	48.9466
Total		228.3570	0.0103	2.1400e-003	229.2518

6.0 Area Detail**6.1 Mitigation Measures Area**

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Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.7509	0.0135	1.1146	6.0000e-005		6.2200e-003	6.2200e-003		6.2200e-003	6.2200e-003	0.0000	2.5689	2.5689	1.7700e-003	1.0000e-005	2.6171
Unmitigated	0.7509	0.0135	1.1146	6.0000e-005		6.2200e-003	6.2200e-003		6.2200e-003	6.2200e-003	0.0000	2.5689	2.5689	1.7700e-003	1.0000e-005	2.6171

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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	0.0655					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6517					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	8.0000e-005	6.5000e-004	2.8000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7490	0.7490	1.0000e-005	1.0000e-005	0.7535
Landscaping	0.0336	0.0128	1.1143	6.0000e-005		6.1700e-003	6.1700e-003		6.1700e-003	6.1700e-003	0.0000	1.8198	1.8198	1.7500e-003	0.0000	1.8636
Total	0.7509	0.0135	1.1146	6.0000e-005		6.2200e-003	6.2200e-003		6.2200e-003	6.2200e-003	0.0000	2.5689	2.5689	1.7600e-003	1.0000e-005	2.6171

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6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0655					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6517					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	8.0000e-005	6.5000e-004	2.8000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7490	0.7490	1.0000e-005	1.0000e-005	0.7535
Landscaping	0.0336	0.0128	1.1143	6.0000e-005		6.1700e-003	6.1700e-003		6.1700e-003	6.1700e-003	0.0000	1.8198	1.8198	1.7500e-003	0.0000	1.8636
Total	0.7509	0.0135	1.1146	6.0000e-005		6.2200e-003	6.2200e-003		6.2200e-003	6.2200e-003	0.0000	2.5689	2.5689	1.7600e-003	1.0000e-005	2.6171

7.0 Water Detail**7.1 Mitigation Measures Water**

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	20.6784	0.2556	6.1900e-003	28.9115
Unmitigated	24.7580	0.3194	7.7200e-003	35.0451

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	9.7731 / 6.1613	24.7580	0.3194	7.7200e-003	35.0451
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		24.7580	0.3194	7.7200e-003	35.0451

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7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	7.81848 / 5.78547	20.6784	0.2556	6.1900e-003	28.9115
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		20.6784	0.2556	6.1900e-003	28.9115

8.0 Waste Detail**8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	14.0064	0.8278	0.0000	34.7002
Unmitigated	14.0064	0.8278	0.0000	34.7002

1095 Rollin Roads - San Mateo County, Annual

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	69	14.0064	0.8278	0.0000	34.7002
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Total		14.0064	0.8278	0.0000	34.7002

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	69	14.0064	0.8278	0.0000	34.7002
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Total		14.0064	0.8278	0.0000	34.7002

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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1095 Rollin Roads - San Mateo County, Annual

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

1095 Rollin Roads - San Mateo County, Winter

1095 Rollin Roads
San Mateo County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	28.60	1000sqft	0.00	28,600.00	0
-----	-----	-----	-----	-----	-----
Apartments Mid Rise	150.00	Dwelling Unit	1.07	166,400.00	429

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	70
Climate Zone	5			Operational Year	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

1095 Rollin Roads - San Mateo County, Winter

Project Characteristics -

Land Use - Source: planning submittal 9.14.18; building gross sf = 195,000 sf (-parking sf); site area = 46,829 sf (1.075 acres); although there are 192 parking spots 175 are stackers stalls, parking garage sf provided by applicant. See site plans for details.

Construction Phase - Applicant provided construction schedule

Off-road Equipment - Provided by applicant; hours/day = avg hours per day

Off-road Equipment - Provided by applicant; hours/day = avg hours per day

Off-road Equipment - Provided by applicant; hours/day = avg hours per day

Off-road Equipment - Provided by applicant; hours/day = avg hours per day

Off-road Equipment - Provided by applicant; hours/day = avg hours per day

Off-road Equipment - Provided by applicant; hours/day = avg hours per day

Trips and VMT - Applicant provided number of worker round trips per work day

Demolition - Applicant provided.

Grading - Applicant provided: total cubic yards of soil exported = 23,500 cy.

Architectural Coating - BAAQMD Regulation 8 Rule 3: Architectural coatings (applied to interior, exterior and "traffic marking coatings" for parking)

Vehicle Trips - Applicant provided traffic study: avg dail trip rate = 5.44; avg trip length = 5.26 miles

Woodstoves - Applicant provided = 1 natural gas fireplace, 1 natural gas fire pit, 4 natural gas BBQ (all included under # gas fireplaces)

Area Coating - BAAQMD Regulation 8 rule 3

Construction Off-road Equipment Mitigation - DPM mitigation

Mobile Land Use Mitigation - Applicant provided information for LUT-1 (150 dwellings/1.075 acres) and LUT-6;
<https://ww3.arb.ca.gov/cc/capandtrade/auctionproceeds/kml/jobcentermap.htm> for LUT-4 and google maps for LUT-5

Area Mitigation - Architectural coating already reduced per BAAQMD regulation 8 rule 3

Energy Mitigation - Applicant plans include Energy Star-rated appliances installed at amenities clubhouse and in all apartment units.

Water Mitigation - Applicant provided information indicates that all plumbing fixtures will meet CalGreen and/or EPA's WaterSense low flow fixture rates.
Landscaping with be drought tolerante and smart programmable controllers will be used for irrigation

1095 Rollin Roads - San Mateo County, Winter

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	150.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	100
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_EF_Parking	150	100
tblAreaCoating	Area_EF_Residential_Exterior	150	100
tblAreaCoating	Area_EF_Residential_Interior	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
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	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
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	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00

1095 Rollin Roads - San Mateo County, Winter

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	46.00
tblConstructionPhase	NumDays	2.00	6.00
tblConstructionPhase	NumDays	4.00	51.00
tblConstructionPhase	NumDays	200.00	326.00
tblConstructionPhase	NumDays	10.00	196.00
tblConstructionPhase	NumDays	10.00	21.00
tblFireplaces	NumberGas	22.50	6.00
tblFireplaces	NumberNoFireplace	6.00	0.00
tblFireplaces	NumberWood	25.50	0.00
tblGrading	AcresOfGrading	0.00	1.35

1095 Rollin Roads - San Mateo County, Winter

tblGrading	AcresOfGrading	1.35	0.00
tblGrading	MaterialExported	0.00	23,500.00
tblLandUse	LandUseSquareFeet	150,000.00	166,400.00
tblLandUse	LotAcreage	0.66	0.00
tblLandUse	LotAcreage	3.95	1.07
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	8.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	8.00	0.70
tblOffRoadEquipment	UsageHours	8.00	1.80
tblOffRoadEquipment	UsageHours	8.00	2.70
tblOffRoadEquipment	UsageHours	8.00	3.60
tblOffRoadEquipment	UsageHours	7.00	2.40
tblOffRoadEquipment	UsageHours	8.00	2.40
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	7.00	3.60
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	8.00	1.70
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	6.00	2.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.80

1095 Rollin Roads - San Mateo County, Winter

tblOffRoadEquipment	UsageHours	8.00	1.60
tblOffRoadEquipment	UsageHours	6.00	4.10
tblTripsAndVMT	WorkerTripNumber	13.00	35.00
tblTripsAndVMT	WorkerTripNumber	10.00	35.00
tblTripsAndVMT	WorkerTripNumber	20.00	35.00
tblTripsAndVMT	WorkerTripNumber	120.00	35.00
tblTripsAndVMT	WorkerTripNumber	13.00	35.00
tblTripsAndVMT	WorkerTripNumber	24.00	35.00
tblVehicleTrips	HO_TL	5.70	5.26
tblVehicleTrips	HS_TL	4.80	5.26
tblVehicleTrips	HW_TL	10.80	5.26
tblVehicleTrips	ST_TR	6.39	5.44
tblVehicleTrips	SU_TR	5.86	5.44
tblVehicleTrips	WD_TR	6.65	5.44
tblWoodstoves	NumberCatalytic	3.00	0.00
tblWoodstoves	NumberNoncatalytic	3.00	0.00

2.0 Emissions Summary

1095 Rollin Roads - San Mateo County, Winter

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	1.2391	24.8342	15.1395	0.0608	2.0942	0.3801	2.4333	1.0693	0.3596	1.3813	0.0000	6,648.003 1	6,648.003 1	0.9504	0.0000	6,671.763 2
2021	8.4085	12.2714	13.9976	0.0291	0.7168	0.6131	1.3299	0.1933	0.6092	0.8025	0.0000	2,846.766 1	2,846.766 1	0.2139	0.0000	2,852.1123
2022	8.2905	11.3863	13.8597	0.0289	0.7168	0.5313	1.2480	0.1933	0.5279	0.7212	0.0000	2,821.298 2	2,821.298 2	0.2057	0.0000	2,826.441 8
Maximum	8.4085	24.8342	15.1395	0.0608	2.0942	0.6131	2.4333	1.0693	0.6092	1.3813	0.0000	6,648.003 1	6,648.003 1	0.9504	0.0000	6,671.763 2

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	0.7595	19.3697	16.3065	0.0608	1.3238	0.0786	1.4024	0.5231	0.0759	0.5368	0.0000	6,648.003 1	6,648.003 1	0.9504	0.0000	6,671.763 2
2021	7.1544	3.7922	13.9522	0.0291	0.7168	0.0336	0.7503	0.1933	0.0331	0.2264	0.0000	2,846.766 1	2,846.766 1	0.2139	0.0000	2,852.1123
2022	7.1395	3.6497	13.8577	0.0289	0.7168	0.0329	0.7497	0.1933	0.0324	0.2258	0.0000	2,821.298 2	2,821.298 2	0.2057	0.0000	2,826.441 8
Maximum	7.1544	19.3697	16.3065	0.0608	1.3238	0.0786	1.4024	0.5231	0.0759	0.5368	0.0000	6,648.003 1	6,648.003 1	0.9504	0.0000	6,671.763 2

1095 Rollin Roads - San Mateo County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	16.08	44.71	-2.60	0.00	21.84	90.49	42.08	37.51	90.55	65.96	0.00	0.00	0.00	0.00	0.00	0.00

1095 Rollin Roads - San Mateo County, Winter

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.3166	0.2588	12.4303	1.3900e-003		0.0779	0.0779		0.0779	0.0779	0.0000	170.5244	170.5244	0.0243	2.7200e-003	171.9414
Energy	0.0387	0.3306	0.1407	2.1100e-003		0.0267	0.0267		0.0267	0.0267		422.0998	422.0998	8.0900e-003	7.7400e-003	424.6081
Mobile	0.8900	2.4053	9.4630	0.0295	2.9475	0.0245	2.9721	0.7893	0.0228	0.8122		2,977.8004	2,977.8004	0.1132		2,980.6304
Total	5.2453	2.9948	22.0340	0.0330	2.9475	0.1292	3.0767	0.7893	0.1275	0.9168	0.0000	3,570.4246	3,570.4246	0.1456	0.0105	3,577.1799

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.3166	0.2588	12.4303	1.3900e-003		0.0779	0.0779		0.0779	0.0779	0.0000	170.5244	170.5244	0.0243	2.7200e-003	171.9414
Energy	0.0387	0.3306	0.1407	2.1100e-003		0.0267	0.0267		0.0267	0.0267		422.0998	422.0998	8.0900e-003	7.7400e-003	424.6081
Mobile	0.7419	1.7670	6.3625	0.0155	1.4662	0.0144	1.4806	0.3926	0.0134	0.4060		1,560.0894	1,560.0894	0.0674		1,561.7744
Total	5.0972	2.3565	18.9335	0.0190	1.4662	0.1190	1.5852	0.3926	0.1180	0.5107	0.0000	2,152.7135	2,152.7135	0.0998	0.0105	2,158.3239

1095 Rollin Roads - San Mateo County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	2.82	21.31	14.07	42.52	50.26	7.84	48.48	50.26	7.41	44.30	0.00	39.71	39.71	31.46	0.00	39.66

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	7/1/2020	9/2/2020	5	46	
2	Site Preparation	Site Preparation	9/3/2020	9/10/2020	5	6	
3	Grading	Grading	9/11/2020	11/20/2020	5	51	
4	Building Construction	Building Construction	11/23/2020	2/21/2022	5	326	
5	Architectural Coating	Architectural Coating	5/24/2021	2/21/2022	5	196	
6	Paving	Paving	2/22/2022	3/22/2022	5	21	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.35

Acres of Paving: 0

Residential Indoor: 336,960; Residential Outdoor: 112,320; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 1,716 (Architectural Coating – sqft)

OffRoad Equipment

1095 Rollin Roads - San Mateo County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	0.70	81	0.73
Demolition	Excavators	2	6.00	158	0.38
Demolition	Rubber Tired Dozers	1	1.80	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	2.70	97	0.37
Site Preparation	Graders	1	3.60	187	0.41
Site Preparation	Rubber Tired Dozers	1	2.40	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	2.40	97	0.37
Grading	Bore/Drill Rigs	1	1.20	221	0.50
Grading	Bore/Drill Rigs	1	0.60	221	0.50
Grading	Excavators	1	5.40	158	0.38
Grading	Generator Sets	1	4.00	84	0.74
Grading	Graders	1	0.00	187	0.41
Grading	Rubber Tired Dozers	1	0.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	3.60	97	0.37
Building Construction	Cranes	1	0.00	231	0.29
Building Construction	Forklifts	1	4.00	89	0.20
Building Construction	Generator Sets	1	0.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	0.00	97	0.37
Building Construction	Welders	3	1.70	46	0.45
Paving	Cement and Mortar Mixers	1	0.00	9	0.56
Paving	Pavers	1	2.00	130	0.42
Paving	Paving Equipment	1	0.00	132	0.36
Paving	Rollers	1	0.80	80	0.38
Paving	Tractors/Loaders/Backhoes	1	1.60	97	0.37
Architectural Coating	Aerial Lifts	2	0.40	63	0.31
Architectural Coating	Air Compressors	8	4.10	78	0.48

1095 Rollin Roads - San Mateo County, Winter

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	35.00	0.00	112.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	4	35.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	35.00	0.00	2,938.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	35.00	21.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	35.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	10	35.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5251	0.0000	0.5251	0.0795	0.0000	0.0795			0.0000			0.0000
Off-Road	0.7177	7.1678	6.9233	0.0113		0.3624	0.3624		0.3348	0.3348		1,089.697 2	1,089.697 2	0.3389		1,098.170 8
Total	0.7177	7.1678	6.9233	0.0113	0.5251	0.3624	0.8875	0.0795	0.3348	0.4143		1,089.697 2	1,089.697 2	0.3389		1,098.170 8

1095 Rollin Roads - San Mateo County, Winter

3.2 Demolition - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0218	0.7907	0.3322	1.9700e-003	0.0423	2.4800e-003	0.0448	0.0116	2.3700e-003	0.0139		222.8011	222.8011	0.0281		223.5038
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1070	0.0704	0.7013	2.5300e-003	0.2875	1.7300e-003	0.2893	0.0763	1.5900e-003	0.0779		251.9516	251.9516	4.9500e-003		252.0754
Total	0.1289	0.8611	1.0335	4.5000e-003	0.3298	4.2100e-003	0.3340	0.0878	3.9600e-003	0.0918		474.7527	474.7527	0.0331		475.5792

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2363	0.0000	0.2363	0.0358	0.0000	0.0358			0.0000			0.0000
Off-Road	0.1371	0.5942	7.8677	0.0113		0.0183	0.0183		0.0183	0.0183	0.0000	1,089.6972	1,089.6972	0.3389		1,098.1708
Total	0.1371	0.5942	7.8677	0.0113	0.2363	0.0183	0.2546	0.0358	0.0183	0.0541	0.0000	1,089.6972	1,089.6972	0.3389		1,098.1708

1095 Rollin Roads - San Mateo County, Winter

3.2 Demolition - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0218	0.7907	0.3322	1.9700e-003	0.0423	2.4800e-003	0.0448	0.0116	2.3700e-003	0.0139		222.8011	222.8011	0.0281		223.5038
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1070	0.0704	0.7013	2.5300e-003	0.2875	1.7300e-003	0.2893	0.0763	1.5900e-003	0.0779		251.9516	251.9516	4.9500e-003		252.0754
Total	0.1289	0.8611	1.0335	4.5000e-003	0.3298	4.2100e-003	0.3340	0.0878	3.9600e-003	0.0918		474.7527	474.7527	0.0331		475.5792

3.3 Site Preparation - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.8066	0.0000	1.8066	0.9931	0.0000	0.9931			0.0000			0.0000
Off-Road	0.6637	7.5093	3.4238	7.4100e-003		0.3374	0.3374		0.3104	0.3104		717.8873	717.8873	0.2322		723.6917
Total	0.6637	7.5093	3.4238	7.4100e-003	1.8066	0.3374	2.1440	0.9931	0.3104	1.3035		717.8873	717.8873	0.2322		723.6917

1095 Rollin Roads - San Mateo County, Winter

3.3 Site Preparation - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1070	0.0704	0.7013	2.5300e-003	0.2875	1.7300e-003	0.2893	0.0763	1.5900e-003	0.0779		251.9516	251.9516	4.9500e-003		252.0754
Total	0.1070	0.0704	0.7013	2.5300e-003	0.2875	1.7300e-003	0.2893	0.0763	1.5900e-003	0.0779		251.9516	251.9516	4.9500e-003		252.0754

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.8130	0.0000	0.8130	0.4469	0.0000	0.4469			0.0000			0.0000
Off-Road	0.0907	0.3929	3.8940	7.4100e-003		0.0121	0.0121		0.0121	0.0121	0.0000	717.8873	717.8873	0.2322		723.6917
Total	0.0907	0.3929	3.8940	7.4100e-003	0.8130	0.0121	0.8251	0.4469	0.0121	0.4590	0.0000	717.8873	717.8873	0.2322		723.6917

1095 Rollin Roads - San Mateo County, Winter

3.3 Site Preparation - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1070	0.0704	0.7013	2.5300e-003	0.2875	1.7300e-003	0.2893	0.0763	1.5900e-003	0.0779		251.9516	251.9516	4.9500e-003		252.0754
Total	0.1070	0.0704	0.7013	2.5300e-003	0.2875	1.7300e-003	0.2893	0.0763	1.5900e-003	0.0779		251.9516	251.9516	4.9500e-003		252.0754

3.4 Grading - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0802	0.0000	0.0802	0.0109	0.0000	0.0109			0.0000			0.0000
Off-Road	0.6159	6.0550	6.5784	0.0117		0.3197	0.3197		0.3019	0.3019		1,124.495 4	1,124.495 4	0.2805		1,131.507 3
Total	0.6159	6.0550	6.5784	0.0117	0.0802	0.3197	0.3998	0.0109	0.3019	0.3128		1,124.495 4	1,124.495 4	0.2805		1,131.507 3

1095 Rollin Roads - San Mateo County, Winter

3.4 Grading - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5162	18.7088	7.8597	0.0466	1.0002	0.0587	1.0589	0.2737	0.0561	0.3299		5,271.556 1	5,271.556 1	0.6650		5,288.180 5
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1070	0.0704	0.7013	2.5300e-003	0.2875	1.7300e-003	0.2893	0.0763	1.5900e-003	0.0779		251.9516	251.9516	4.9500e-003		252.0754
Total	0.6232	18.7792	8.5611	0.0491	1.2878	0.0604	1.3482	0.3500	0.0577	0.4077		5,523.507 7	5,523.507 7	0.6699		5,540.255 9

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0361	0.0000	0.0361	4.9100e-003	0.0000	4.9100e-003			0.0000			0.0000
Off-Road	0.1363	0.5905	7.7454	0.0117		0.0182	0.0182		0.0182	0.0182	0.0000	1,124.495 4	1,124.495 4	0.2805		1,131.507 3
Total	0.1363	0.5905	7.7454	0.0117	0.0361	0.0182	0.0543	4.9100e-003	0.0182	0.0231	0.0000	1,124.495 4	1,124.495 4	0.2805		1,131.507 3

1095 Rollin Roads - San Mateo County, Winter

3.4 Grading - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5162	18.7088	7.8597	0.0466	1.0002	0.0587	1.0589	0.2737	0.0561	0.3299		5,271.556 1	5,271.556 1	0.6650		5,288.180 5
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1070	0.0704	0.7013	2.5300e-003	0.2875	1.7300e-003	0.2893	0.0763	1.5900e-003	0.0779		251.9516	251.9516	4.9500e-003		252.0754
Total	0.6232	18.7792	8.5611	0.0491	1.2878	0.0604	1.3482	0.3500	0.0577	0.4077		5,523.507 7	5,523.507 7	0.6699		5,540.255 9

3.5 Building Construction - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2901	1.6505	1.7166	2.3900e-003		0.1037	0.1037		0.0999	0.0999		206.2825	206.2825	0.0435		207.3697
Total	0.2901	1.6505	1.7166	2.3900e-003		0.1037	0.1037		0.0999	0.0999		206.2825	206.2825	0.0435		207.3697

1095 Rollin Roads - San Mateo County, Winter

3.5 Building Construction - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0836	2.4365	1.0119	5.5300e-003	0.1417	0.0123	0.1540	0.0408	0.0118	0.0526		607.1734	607.1734	0.0540		608.5224
Worker	0.1070	0.0704	0.7013	2.5300e-003	0.2875	1.7300e-003	0.2893	0.0763	1.5900e-003	0.0779		251.9516	251.9516	4.9500e-003		252.0754
Total	0.1906	2.5068	1.7133	8.0600e-003	0.4293	0.0140	0.4433	0.1170	0.0134	0.1304		859.1250	859.1250	0.0589		860.5978

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0374	0.6809	1.5350	2.3900e-003		3.1200e-003	3.1200e-003		3.1200e-003	3.1200e-003	0.0000	206.2825	206.2825	0.0435		207.3697
Total	0.0374	0.6809	1.5350	2.3900e-003		3.1200e-003	3.1200e-003		3.1200e-003	3.1200e-003	0.0000	206.2825	206.2825	0.0435		207.3697

1095 Rollin Roads - San Mateo County, Winter

3.5 Building Construction - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0836	2.4365	1.0119	5.5300e-003	0.1417	0.0123	0.1540	0.0408	0.0118	0.0526		607.1734	607.1734	0.0540		608.5224
Worker	0.1070	0.0704	0.7013	2.5300e-003	0.2875	1.7300e-003	0.2893	0.0763	1.5900e-003	0.0779		251.9516	251.9516	4.9500e-003		252.0754
Total	0.1906	2.5068	1.7133	8.0600e-003	0.4293	0.0140	0.4433	0.1170	0.0134	0.1304		859.1250	859.1250	0.0589		860.5978

3.5 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2576	1.5515	1.6797	2.3900e-003		0.0891	0.0891		0.0858	0.0858		206.2825	206.2825	0.0412		207.3115
Total	0.2576	1.5515	1.6797	2.3900e-003		0.0891	0.0891		0.0858	0.0858		206.2825	206.2825	0.0412		207.3115

1095 Rollin Roads - San Mateo County, Winter

3.5 Building Construction - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0691	2.1868	0.9788	5.4500e-003	0.1417	5.1500e-003	0.1469	0.0408	4.9300e-003	0.0457		599.6581	599.6581	0.0530		600.9821
Worker	0.1002	0.0632	0.6468	2.4400e-003	0.2875	1.6800e-003	0.2892	0.0763	1.5400e-003	0.0778		242.9905	242.9905	4.4400e-003		243.1015
Total	0.1693	2.2499	1.6257	7.8900e-003	0.4293	6.8300e-003	0.4361	0.1171	6.4700e-003	0.1235		842.6485	842.6485	0.0574		844.0836

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0374	0.6809	1.5350	2.3900e-003		3.1200e-003	3.1200e-003		3.1200e-003	3.1200e-003	0.0000	206.2825	206.2825	0.0412		207.3115
Total	0.0374	0.6809	1.5350	2.3900e-003		3.1200e-003	3.1200e-003		3.1200e-003	3.1200e-003	0.0000	206.2825	206.2825	0.0412		207.3115

1095 Rollin Roads - San Mateo County, Winter

3.5 Building Construction - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0691	2.1868	0.9788	5.4500e-003	0.1417	5.1500e-003	0.1469	0.0408	4.9300e-003	0.0457		599.6581	599.6581	0.0530		600.9821
Worker	0.1002	0.0632	0.6468	2.4400e-003	0.2875	1.6800e-003	0.2892	0.0763	1.5400e-003	0.0778		242.9905	242.9905	4.4400e-003		243.1015
Total	0.1693	2.2499	1.6257	7.8900e-003	0.4293	6.8300e-003	0.4361	0.1171	6.4700e-003	0.1235		842.6485	842.6485	0.0574		844.0836

3.5 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2332	1.4601	1.6580	2.3900e-003		0.0757	0.0757		0.0729	0.0729		206.2825	206.2825	0.0398		207.2766
Total	0.2332	1.4601	1.6580	2.3900e-003		0.0757	0.0757		0.0729	0.0729		206.2825	206.2825	0.0398		207.2766

1095 Rollin Roads - San Mateo County, Winter

3.5 Building Construction - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0649	2.0565	0.9760	5.3600e-003	0.1418	4.5500e-003	0.1463	0.0408	4.3500e-003	0.0451		591.9638	591.9638	0.0526		593.2775
Worker	0.0949	0.0570	0.6011	2.3500e-003	0.2875	1.6400e-003	0.2892	0.0763	1.5100e-003	0.0778		234.1036	234.1036	4.0000e-003		234.2036
Total	0.1598	2.1135	1.5770	7.7100e-003	0.4293	6.1900e-003	0.4355	0.1171	5.8600e-003	0.1229		826.0674	826.0674	0.0566		827.4812

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0374	0.6809	1.5350	2.3900e-003		3.1200e-003	3.1200e-003		3.1200e-003	3.1200e-003	0.0000	206.2825	206.2825	0.0398		207.2766
Total	0.0374	0.6809	1.5350	2.3900e-003		3.1200e-003	3.1200e-003		3.1200e-003	3.1200e-003	0.0000	206.2825	206.2825	0.0398		207.2766

1095 Rollin Roads - San Mateo County, Winter

3.5 Building Construction - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0649	2.0565	0.9760	5.3600e-003	0.1418	4.5500e-003	0.1463	0.0408	4.3500e-003	0.0451		591.9638	591.9638	0.0526		593.2775
Worker	0.0949	0.0570	0.6011	2.3500e-003	0.2875	1.6400e-003	0.2892	0.0763	1.5100e-003	0.0778		234.1036	234.1036	4.0000e-003		234.2036
Total	0.1598	2.1135	1.5770	7.7100e-003	0.4293	6.1900e-003	0.4355	0.1171	5.8600e-003	0.1229		826.0674	826.0674	0.0566		827.4812

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	lb/day										lb/day					
Archit. Coating	6.6809					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	1.2004	8.4068	10.0454	0.0164		0.5155	0.5155		0.5155	0.5155		1,554.8447	1,554.8447	0.1109		1,557.6158
Total	7.8813	8.4068	10.0454	0.0164		0.5155	0.5155		0.5155	0.5155		1,554.8447	1,554.8447	0.1109		1,557.6158

1095 Rollin Roads - San Mateo County, Winter

3.6 Architectural Coating - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1002	0.0632	0.6468	2.4400e-003	0.2875	1.6800e-003	0.2892	0.0763	1.5400e-003	0.0778		242.9905	242.9905	4.4400e-003		243.1015
Total	0.1002	0.0632	0.6468	2.4400e-003	0.2875	1.6800e-003	0.2892	0.0763	1.5400e-003	0.0778		242.9905	242.9905	4.4400e-003		243.1015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	6.6809					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1666	0.7983	10.1446	0.0164		0.0219	0.0219		0.0219	0.0219	0.0000	1,554.8447	1,554.8447	0.1109		1,557.6158
Total	6.8475	0.7983	10.1446	0.0164		0.0219	0.0219		0.0219	0.0219	0.0000	1,554.8447	1,554.8447	0.1109		1,557.6158

1095 Rollin Roads - San Mateo County, Winter

3.6 Architectural Coating - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1002	0.0632	0.6468	2.4400e-003	0.2875	1.6800e-003	0.2892	0.0763	1.5400e-003	0.0778		242.9905	242.9905	4.4400e-003		243.1015
Total	0.1002	0.0632	0.6468	2.4400e-003	0.2875	1.6800e-003	0.2892	0.0763	1.5400e-003	0.0778		242.9905	242.9905	4.4400e-003		243.1015

3.6 Architectural Coating - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	6.6809					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	1.1217	7.7557	10.0237	0.0164		0.4478	0.4478		0.4477	0.4477		1,554.8447	1,554.8447	0.1054		1,557.4804
Total	7.8027	7.7557	10.0237	0.0164		0.4478	0.4478		0.4477	0.4477		1,554.8447	1,554.8447	0.1054		1,557.4804

1095 Rollin Roads - San Mateo County, Winter

3.6 Architectural Coating - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0949	0.0570	0.6011	2.3500e-003	0.2875	1.6400e-003	0.2892	0.0763	1.5100e-003	0.0778		234.1036	234.1036	4.0000e-003		234.2036
Total	0.0949	0.0570	0.6011	2.3500e-003	0.2875	1.6400e-003	0.2892	0.0763	1.5100e-003	0.0778		234.1036	234.1036	4.0000e-003		234.2036

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	6.6809					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1666	0.7983	10.1446	0.0164		0.0219	0.0219		0.0219	0.0219	0.0000	1,554.8447	1,554.8447	0.1054		1,557.4804
Total	6.8475	0.7983	10.1446	0.0164		0.0219	0.0219		0.0219	0.0219	0.0000	1,554.8447	1,554.8447	0.1054		1,557.4804

1095 Rollin Roads - San Mateo County, Winter

3.6 Architectural Coating - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0949	0.0570	0.6011	2.3500e-003	0.2875	1.6400e-003	0.2892	0.0763	1.5100e-003	0.0778		234.1036	234.1036	4.0000e-003		234.2036
Total	0.0949	0.0570	0.6011	2.3500e-003	0.2875	1.6400e-003	0.2892	0.0763	1.5100e-003	0.0778		234.1036	234.1036	4.0000e-003		234.2036

3.7 Paving - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1013	1.0324	1.3546	2.0600e-003		0.0529	0.0529		0.0487	0.0487		199.4727	199.4727	0.0645		201.0855
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.1013	1.0324	1.3546	2.0600e-003		0.0529	0.0529		0.0487	0.0487		199.4727	199.4727	0.0645		201.0855

1095 Rollin Roads - San Mateo County, Winter

3.7 Paving - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0949	0.0570	0.6011	2.3500e-003	0.2875	1.6400e-003	0.2892	0.0763	1.5100e-003	0.0778		234.1036	234.1036	4.0000e-003		234.2036
Total	0.0949	0.0570	0.6011	2.3500e-003	0.2875	1.6400e-003	0.2892	0.0763	1.5100e-003	0.0778		234.1036	234.1036	4.0000e-003		234.2036

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0253	0.1095	1.5576	2.0600e-003		3.3700e-003	3.3700e-003		3.3700e-003	3.3700e-003	0.0000	199.4727	199.4727	0.0645		201.0855
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.0253	0.1095	1.5576	2.0600e-003		3.3700e-003	3.3700e-003		3.3700e-003	3.3700e-003	0.0000	199.4727	199.4727	0.0645		201.0855

1095 Rollin Roads - San Mateo County, Winter

3.7 Paving - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0949	0.0570	0.6011	2.3500e-003	0.2875	1.6400e-003	0.2892	0.0763	1.5100e-003	0.0778		234.1036	234.1036	4.0000e-003		234.2036
Total	0.0949	0.0570	0.6011	2.3500e-003	0.2875	1.6400e-003	0.2892	0.0763	1.5100e-003	0.0778		234.1036	234.1036	4.0000e-003		234.2036

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Increase Density

Improve Destination Accessibility

Increase Transit Accessibility

Integrate Below Market Rate Housing

1095 Rollin Roads - San Mateo County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.7419	1.7670	6.3625	0.0155	1.4662	0.0144	1.4806	0.3926	0.0134	0.4060		1,560.089 4	1,560.089 4	0.0674		1,561.774 4
Unmitigated	0.8900	2.4053	9.4630	0.0295	2.9475	0.0245	2.9721	0.7893	0.0228	0.8122		2,977.800 4	2,977.800 4	0.1132		2,980.630 4

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	816.00	816.00	816.00	1,387,473	690,152
Enclosed Parking with Elevator	0.00	0.00	0.00		
Total	816.00	816.00	816.00	1,387,473	690,152

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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	5.26	5.26	5.26	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

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.470625	0.050338	0.265549	0.140745	0.017339	0.006996	0.024054	0.006595	0.004215	0.003104	0.009159	0.000488	0.000793
Enclosed Parking with Elevator	0.470625	0.050338	0.265549	0.140745	0.017339	0.006996	0.024054	0.006595	0.004215	0.003104	0.009159	0.000488	0.000793

1095 Rollin Roads - San Mateo County, Winter

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0387	0.3306	0.1407	2.1100e-003		0.0267	0.0267		0.0267	0.0267		422.0998	422.0998	8.0900e-003	7.7400e-003	424.6081
NaturalGas Unmitigated	0.0387	0.3306	0.1407	2.1100e-003		0.0267	0.0267		0.0267	0.0267		422.0998	422.0998	8.0900e-003	7.7400e-003	424.6081

1095 Rollin Roads - San Mateo County, Winter

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	3587.85	0.0387	0.3306	0.1407	2.1100e-003		0.0267	0.0267		0.0267	0.0267		422.0998	422.0998	8.0900e-003	7.7400e-003	424.6081
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
Total		0.0387	0.3306	0.1407	2.1100e-003		0.0267	0.0267		0.0267	0.0267		422.0998	422.0998	8.0900e-003	7.7400e-003	424.6081

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	3.58785	0.0387	0.3306	0.1407	2.1100e-003		0.0267	0.0267		0.0267	0.0267		422.0998	422.0998	8.0900e-003	7.7400e-003	424.6081
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
Total		0.0387	0.3306	0.1407	2.1100e-003		0.0267	0.0267		0.0267	0.0267		422.0998	422.0998	8.0900e-003	7.7400e-003	424.6081

6.0 Area Detail**6.1 Mitigation Measures Area**

1095 Rollin Roads - San Mateo County, Winter

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.3166	0.2588	12.4303	1.3900e-003		0.0779	0.0779		0.0779	0.0779	0.0000	170.5244	170.5244	0.0243	2.7200e-003	171.9414
Unmitigated	4.3166	0.2588	12.4303	1.3900e-003		0.0779	0.0779		0.0779	0.0779	0.0000	170.5244	170.5244	0.0243	2.7200e-003	171.9414

1095 Rollin Roads - San Mateo County, Winter

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3588					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.5711					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0136	0.1161	0.0494	7.4000e-004		9.3900e-003	9.3900e-003		9.3900e-003	9.3900e-003	0.0000	148.2353	148.2353	2.8400e-003	2.7200e-003	149.1162
Landscaping	0.3732	0.1427	12.3809	6.5000e-004		0.0685	0.0685		0.0685	0.0685		22.2891	22.2891	0.0214		22.8252
Total	4.3166	0.2588	12.4303	1.3900e-003		0.0779	0.0779		0.0779	0.0779	0.0000	170.5244	170.5244	0.0243	2.7200e-003	171.9414

1095 Rollin Roads - San Mateo County, Winter

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3588					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.5711					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0136	0.1161	0.0494	7.4000e-004		9.3900e-003	9.3900e-003		9.3900e-003	9.3900e-003	0.0000	148.2353	148.2353	2.8400e-003	2.7200e-003	149.1162
Landscaping	0.3732	0.1427	12.3809	6.5000e-004		0.0685	0.0685		0.0685	0.0685		22.2891	22.2891	0.0214		22.8252
Total	4.3166	0.2588	12.4303	1.3900e-003		0.0779	0.0779		0.0779	0.0779	0.0000	170.5244	170.5244	0.0243	2.7200e-003	171.9414

7.0 Water Detail**7.1 Mitigation Measures Water**

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail**8.1 Mitigation Measures Waste**

1095 Rollin Roads - San Mateo County, Winter

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

1095 Rollin Roads - San Mateo County, Summer

1095 Rollin Roads

San Mateo County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	28.60	1000sqft	0.00	28,600.00	0
-----	-----	-----	-----	-----	-----
Apartments Mid Rise	150.00	Dwelling Unit	1.07	166,400.00	429

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	70
Climate Zone	5			Operational Year	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

1095 Rollin Roads - San Mateo County, Summer

Project Characteristics -

Land Use - Source: planning submittal 9.14.18; building gross sf = 195,000 sf (-parking sf); site area = 46,829 sf (1.075 acres); although there are 192 parking spots 175 are stackers stalls, parking garage sf provided by applicant. See site plans for details.

Construction Phase - Applicant provided construction schedule

Off-road Equipment - Provided by applicant; hours/day = avg hours per day

Off-road Equipment - Provided by applicant; hours/day = avg hours per day

Off-road Equipment - Provided by applicant; hours/day = avg hours per day

Off-road Equipment - Provided by applicant; hours/day = avg hours per day

Off-road Equipment - Provided by applicant; hours/day = avg hours per day

Off-road Equipment - Provided by applicant; hours/day = avg hours per day

Trips and VMT - Applicant provided number of worker round trips per work day

Demolition - Applicant provided.

Grading - Applicant provided: total cubic yards of soil exported = 23,500 cy.

Architectural Coating - BAAQMD Regulation 8 Rule 3: Architectural coatings (applied to interior, exterior and "traffic marking coatings" for parking)

Vehicle Trips - Applicant provided traffic study: avg dail trip rate = 5.44; avg trip length = 5.26 miles

Woodstoves - Applicant provided = 1 natural gas fireplace, 1 natural gas fire pit, 4 natural gas BBQ (all included under # gas fireplaces)

Area Coating - BAAQMD Regulation 8 rule 3

Construction Off-road Equipment Mitigation - DPM mitigation

Mobile Land Use Mitigation - Applicant provided information for LUT-1 (150 dwellings/1.075 acres) and LUT-6;
<https://ww3.arb.ca.gov/cc/capandtrade/auctionproceeds/kml/jobcentermap.htm> for LUT-4 and google maps for LUT-5

Area Mitigation - Architectural coating already reduced per BAAQMD regulation 8 rule 3

Energy Mitigation - Applicant plans include Energy Star-rated appliances installed at amenities clubhouse and in all apartment units.

Water Mitigation - Applicant provided information indicates that all plumbing fixtures will meet CalGreen and/or EPA's WaterSense low flow fixture rates.
Landscaping with be drought tolerate and smart programmable controllers will be used for irrigation

1095 Rollin Roads - San Mateo County, Summer

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	150.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	100
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_EF_Parking	150	100
tblAreaCoating	Area_EF_Residential_Exterior	150	100
tblAreaCoating	Area_EF_Residential_Interior	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
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	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
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	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00

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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	46.00
tblConstructionPhase	NumDays	2.00	6.00
tblConstructionPhase	NumDays	4.00	51.00
tblConstructionPhase	NumDays	200.00	326.00
tblConstructionPhase	NumDays	10.00	196.00
tblConstructionPhase	NumDays	10.00	21.00
tblFireplaces	NumberGas	22.50	6.00
tblFireplaces	NumberNoFireplace	6.00	0.00
tblFireplaces	NumberWood	25.50	0.00
tblGrading	AcresOfGrading	0.00	1.35

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tblGrading	AcresOfGrading	1.35	0.00
tblGrading	MaterialExported	0.00	23,500.00
tblLandUse	LandUseSquareFeet	150,000.00	166,400.00
tblLandUse	LotAcreage	0.66	0.00
tblLandUse	LotAcreage	3.95	1.07
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	8.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	8.00	0.70
tblOffRoadEquipment	UsageHours	8.00	1.80
tblOffRoadEquipment	UsageHours	8.00	2.70
tblOffRoadEquipment	UsageHours	8.00	3.60
tblOffRoadEquipment	UsageHours	7.00	2.40
tblOffRoadEquipment	UsageHours	8.00	2.40
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	7.00	3.60
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	8.00	1.70
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	6.00	2.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.80

1095 Rollin Roads - San Mateo County, Summer

tblOffRoadEquipment	UsageHours	8.00	1.60
tblOffRoadEquipment	UsageHours	6.00	4.10
tblTripsAndVMT	WorkerTripNumber	13.00	35.00
tblTripsAndVMT	WorkerTripNumber	10.00	35.00
tblTripsAndVMT	WorkerTripNumber	20.00	35.00
tblTripsAndVMT	WorkerTripNumber	120.00	35.00
tblTripsAndVMT	WorkerTripNumber	13.00	35.00
tblTripsAndVMT	WorkerTripNumber	24.00	35.00
tblVehicleTrips	HO_TL	5.70	5.26
tblVehicleTrips	HS_TL	4.80	5.26
tblVehicleTrips	HW_TL	10.80	5.26
tblVehicleTrips	ST_TR	6.39	5.44
tblVehicleTrips	SU_TR	5.86	5.44
tblVehicleTrips	WD_TR	6.65	5.44
tblWoodstoves	NumberCatalytic	3.00	0.00
tblWoodstoves	NumberNoncatalytic	3.00	0.00

2.0 Emissions Summary

1095 Rollin Roads - San Mateo County, Summer

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	1.2180	24.2544	14.9996	0.0614	2.0942	0.3786	2.4333	1.0693	0.3583	1.3813	0.0000	6,721.158 3	6,721.158 3	0.9456	0.0000	6,744.797 5
2021	8.3839	12.2174	13.9674	0.0295	0.7168	0.6129	1.3297	0.1933	0.6090	0.8023	0.0000	2,889.228 2	2,889.228 2	0.2132	0.0000	2,894.558 1
2022	8.2665	11.3374	13.8342	0.0293	0.7168	0.5310	1.2478	0.1933	0.5277	0.7210	0.0000	2,862.384 3	2,862.384 3	0.2052	0.0000	2,867.513 9
Maximum	8.3839	24.2544	14.9996	0.0614	2.0942	0.6129	2.4333	1.0693	0.6090	1.3813	0.0000	6,721.158 3	6,721.158 3	0.9456	0.0000	6,744.797 5

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	0.7384	18.7899	16.1666	0.0614	1.3238	0.0771	1.4010	0.5231	0.0745	0.5368	0.0000	6,721.158 3	6,721.158 3	0.9456	0.0000	6,744.797 5
2021	7.1298	3.7382	13.9220	0.0295	0.7168	0.0333	0.7501	0.1933	0.0328	0.2262	0.0000	2,889.228 2	2,889.228 2	0.2132	0.0000	2,894.558 1
2022	7.1155	3.6008	13.8322	0.0293	0.7168	0.0327	0.7495	0.1933	0.0322	0.2255	0.0000	2,862.384 3	2,862.384 3	0.2052	0.0000	2,867.513 9
Maximum	7.1298	18.7899	16.1666	0.0614	1.3238	0.0771	1.4010	0.5231	0.0745	0.5368	0.0000	6,721.158 3	6,721.158 3	0.9456	0.0000	6,744.797 5

1095 Rollin Roads - San Mateo County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	16.14	45.35	-2.62	0.00	21.84	90.60	42.11	37.51	90.66	65.97	0.00	0.00	0.00	0.00	0.00	0.00

1095 Rollin Roads - San Mateo County, Summer

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.3166	0.2588	12.4303	1.3900e-003		0.0779	0.0779		0.0779	0.0779	0.0000	170.5244	170.5244	0.0243	2.7200e-003	171.9414
Energy	0.0387	0.3306	0.1407	2.1100e-003		0.0267	0.0267		0.0267	0.0267		422.0998	422.0998	8.0900e-003	7.7400e-003	424.6081
Mobile	0.9857	2.2379	8.9441	0.0310	2.9475	0.0244	2.9720	0.7893	0.0228	0.8121		3,131.1066	3,131.1066	0.1101		3,133.8580
Total	5.3410	2.8274	21.5150	0.0345	2.9475	0.1291	3.0766	0.7893	0.1274	0.9167	0.0000	3,723.7308	3,723.7308	0.1424	0.0105	3,730.4075

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.3166	0.2588	12.4303	1.3900e-003		0.0779	0.0779		0.0779	0.0779	0.0000	170.5244	170.5244	0.0243	2.7200e-003	171.9414
Energy	0.0387	0.3306	0.1407	2.1100e-003		0.0267	0.0267		0.0267	0.0267		422.0998	422.0998	8.0900e-003	7.7400e-003	424.6081
Mobile	0.8392	1.6718	5.6453	0.0162	1.4662	0.0143	1.4805	0.3926	0.0133	0.4059		1,639.2993	1,639.2993	0.0637		1,640.8911
Total	5.1945	2.2613	18.2162	0.0197	1.4662	0.1190	1.5851	0.3926	0.1179	0.5106	0.0000	2,231.9235	2,231.9235	0.0961	0.0105	2,237.4406

1095 Rollin Roads - San Mateo County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	2.74	20.02	15.33	42.82	50.26	7.85	48.48	50.26	7.43	44.31	0.00	40.06	40.06	32.57	0.00	40.02

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	7/1/2020	9/2/2020	5	46	
2	Site Preparation	Site Preparation	9/3/2020	9/10/2020	5	6	
3	Grading	Grading	9/11/2020	11/20/2020	5	51	
4	Building Construction	Building Construction	11/23/2020	2/21/2022	5	326	
5	Architectural Coating	Architectural Coating	5/24/2021	2/21/2022	5	196	
6	Paving	Paving	2/22/2022	3/22/2022	5	21	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.35

Acres of Paving: 0

Residential Indoor: 336,960; Residential Outdoor: 112,320; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 1,716 (Architectural Coating – sqft)

OffRoad Equipment

1095 Rollin Roads - San Mateo County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	0.70	81	0.73
Demolition	Excavators	2	6.00	158	0.38
Demolition	Rubber Tired Dozers	1	1.80	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	2.70	97	0.37
Site Preparation	Graders	1	3.60	187	0.41
Site Preparation	Rubber Tired Dozers	1	2.40	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	2.40	97	0.37
Grading	Bore/Drill Rigs	1	1.20	221	0.50
Grading	Bore/Drill Rigs	1	0.60	221	0.50
Grading	Excavators	1	5.40	158	0.38
Grading	Generator Sets	1	4.00	84	0.74
Grading	Graders	1	0.00	187	0.41
Grading	Rubber Tired Dozers	1	0.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	3.60	97	0.37
Building Construction	Cranes	1	0.00	231	0.29
Building Construction	Forklifts	1	4.00	89	0.20
Building Construction	Generator Sets	1	0.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	0.00	97	0.37
Building Construction	Welders	3	1.70	46	0.45
Paving	Cement and Mortar Mixers	1	0.00	9	0.56
Paving	Pavers	1	2.00	130	0.42
Paving	Paving Equipment	1	0.00	132	0.36
Paving	Rollers	1	0.80	80	0.38
Paving	Tractors/Loaders/Backhoes	1	1.60	97	0.37
Architectural Coating	Aerial Lifts	2	0.40	63	0.31
Architectural Coating	Air Compressors	8	4.10	78	0.48

1095 Rollin Roads - San Mateo County, Summer

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	35.00	0.00	112.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	4	35.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	35.00	0.00	2,938.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	35.00	21.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	35.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	10	35.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5251	0.0000	0.5251	0.0795	0.0000	0.0795			0.0000			0.0000
Off-Road	0.7177	7.1678	6.9233	0.0113		0.3624	0.3624		0.3348	0.3348		1,089.697 2	1,089.697 2	0.3389		1,098.170 8
Total	0.7177	7.1678	6.9233	0.0113	0.5251	0.3624	0.8875	0.0795	0.3348	0.4143		1,089.697 2	1,089.697 2	0.3389		1,098.170 8

1095 Rollin Roads - San Mateo County, Summer

3.2 Demolition - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0214	0.7668	0.3253	1.9900e-003	0.0423	2.4200e-003	0.0447	0.0116	2.3100e-003	0.0139		225.1940	225.1940	0.0279		225.8912
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0962	0.0570	0.7243	2.6900e-003	0.2875	1.7300e-003	0.2893	0.0763	1.5900e-003	0.0779		268.4916	268.4916	5.1900e-003		268.6214
Total	0.1175	0.8238	1.0496	4.6800e-003	0.3298	4.1500e-003	0.3339	0.0878	3.9000e-003	0.0917		493.6856	493.6856	0.0331		494.5126

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2363	0.0000	0.2363	0.0358	0.0000	0.0358			0.0000			0.0000
Off-Road	0.1371	0.5942	7.8677	0.0113		0.0183	0.0183		0.0183	0.0183	0.0000	1,089.6972	1,089.6972	0.3389		1,098.1708
Total	0.1371	0.5942	7.8677	0.0113	0.2363	0.0183	0.2546	0.0358	0.0183	0.0541	0.0000	1,089.6972	1,089.6972	0.3389		1,098.1708

1095 Rollin Roads - San Mateo County, Summer

3.2 Demolition - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0214	0.7668	0.3253	1.9900e-003	0.0423	2.4200e-003	0.0447	0.0116	2.3100e-003	0.0139		225.1940	225.1940	0.0279		225.8912
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0962	0.0570	0.7243	2.6900e-003	0.2875	1.7300e-003	0.2893	0.0763	1.5900e-003	0.0779		268.4916	268.4916	5.1900e-003		268.6214
Total	0.1175	0.8238	1.0496	4.6800e-003	0.3298	4.1500e-003	0.3339	0.0878	3.9000e-003	0.0917		493.6856	493.6856	0.0331		494.5126

3.3 Site Preparation - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.8066	0.0000	1.8066	0.9931	0.0000	0.9931			0.0000			0.0000
Off-Road	0.6637	7.5093	3.4238	7.4100e-003		0.3374	0.3374		0.3104	0.3104		717.8873	717.8873	0.2322		723.6917
Total	0.6637	7.5093	3.4238	7.4100e-003	1.8066	0.3374	2.1440	0.9931	0.3104	1.3035		717.8873	717.8873	0.2322		723.6917

1095 Rollin Roads - San Mateo County, Summer

3.3 Site Preparation - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0962	0.0570	0.7243	2.6900e-003	0.2875	1.7300e-003	0.2893	0.0763	1.5900e-003	0.0779		268.4916	268.4916	5.1900e-003		268.6214
Total	0.0962	0.0570	0.7243	2.6900e-003	0.2875	1.7300e-003	0.2893	0.0763	1.5900e-003	0.0779		268.4916	268.4916	5.1900e-003		268.6214

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.8130	0.0000	0.8130	0.4469	0.0000	0.4469			0.0000			0.0000
Off-Road	0.0907	0.3929	3.8940	7.4100e-003		0.0121	0.0121		0.0121	0.0121	0.0000	717.8873	717.8873	0.2322		723.6917
Total	0.0907	0.3929	3.8940	7.4100e-003	0.8130	0.0121	0.8251	0.4469	0.0121	0.4590	0.0000	717.8873	717.8873	0.2322		723.6917

1095 Rollin Roads - San Mateo County, Summer

3.3 Site Preparation - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0962	0.0570	0.7243	2.6900e-003	0.2875	1.7300e-003	0.2893	0.0763	1.5900e-003	0.0779		268.4916	268.4916	5.1900e-003		268.6214
Total	0.0962	0.0570	0.7243	2.6900e-003	0.2875	1.7300e-003	0.2893	0.0763	1.5900e-003	0.0779		268.4916	268.4916	5.1900e-003		268.6214

3.4 Grading - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0802	0.0000	0.0802	0.0109	0.0000	0.0109			0.0000			0.0000
Off-Road	0.6159	6.0550	6.5784	0.0117		0.3197	0.3197		0.3019	0.3019		1,124.495 4	1,124.495 4	0.2805		1,131.507 3
Total	0.6159	6.0550	6.5784	0.0117	0.0802	0.3197	0.3998	0.0109	0.3019	0.3128		1,124.495 4	1,124.495 4	0.2805		1,131.507 3

1095 Rollin Roads - San Mateo County, Summer

3.4 Grading - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5060	18.1424	7.6969	0.0471	1.0002	0.0572	1.0575	0.2737	0.0548	0.3285		5,328.171 3	5,328.171 3	0.6599		5,344.668 8
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0962	0.0570	0.7243	2.6900e-003	0.2875	1.7300e-003	0.2893	0.0763	1.5900e-003	0.0779		268.4916	268.4916	5.1900e-003		268.6214
Total	0.6021	18.1994	8.4212	0.0497	1.2878	0.0590	1.3467	0.3500	0.0563	0.4064		5,596.662 9	5,596.662 9	0.6651		5,613.290 2

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0361	0.0000	0.0361	4.9100e-003	0.0000	4.9100e-003			0.0000			0.0000
Off-Road	0.1363	0.5905	7.7454	0.0117		0.0182	0.0182		0.0182	0.0182	0.0000	1,124.495 4	1,124.495 4	0.2805		1,131.507 3
Total	0.1363	0.5905	7.7454	0.0117	0.0361	0.0182	0.0543	4.9100e-003	0.0182	0.0231	0.0000	1,124.495 4	1,124.495 4	0.2805		1,131.507 3

1095 Rollin Roads - San Mateo County, Summer

3.4 Grading - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5060	18.1424	7.6969	0.0471	1.0002	0.0572	1.0575	0.2737	0.0548	0.3285		5,328.1713	5,328.1713	0.6599		5,344.6688
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0962	0.0570	0.7243	2.6900e-003	0.2875	1.7300e-003	0.2893	0.0763	1.5900e-003	0.0779		268.4916	268.4916	5.1900e-003		268.6214
Total	0.6021	18.1994	8.4212	0.0497	1.2878	0.0590	1.3467	0.3500	0.0563	0.4064		5,596.6629	5,596.6629	0.6651		5,613.2902

3.5 Building Construction - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2901	1.6505	1.7166	2.3900e-003		0.1037	0.1037		0.0999	0.0999		206.2825	206.2825	0.0435		207.3697
Total	0.2901	1.6505	1.7166	2.3900e-003		0.1037	0.1037		0.0999	0.0999		206.2825	206.2825	0.0435		207.3697

1095 Rollin Roads - San Mateo County, Summer

3.5 Building Construction - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0797	2.3984	0.9298	5.6200e-003	0.1417	0.0120	0.1538	0.0408	0.0115	0.0523		617.9530	617.9530	0.0527		619.2715
Worker	0.0962	0.0570	0.7243	2.6900e-003	0.2875	1.7300e-003	0.2893	0.0763	1.5900e-003	0.0779		268.4916	268.4916	5.1900e-003		268.6214
Total	0.1759	2.4554	1.6541	8.3100e-003	0.4293	0.0138	0.4430	0.1170	0.0131	0.1301		886.4446	886.4446	0.0579		887.8929

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0374	0.6809	1.5350	2.3900e-003		3.1200e-003	3.1200e-003		3.1200e-003	3.1200e-003	0.0000	206.2825	206.2825	0.0435		207.3697
Total	0.0374	0.6809	1.5350	2.3900e-003		3.1200e-003	3.1200e-003		3.1200e-003	3.1200e-003	0.0000	206.2825	206.2825	0.0435		207.3697

1095 Rollin Roads - San Mateo County, Summer

3.5 Building Construction - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0797	2.3984	0.9298	5.6200e-003	0.1417	0.0120	0.1538	0.0408	0.0115	0.0523		617.9530	617.9530	0.0527		619.2715
Worker	0.0962	0.0570	0.7243	2.6900e-003	0.2875	1.7300e-003	0.2893	0.0763	1.5900e-003	0.0779		268.4916	268.4916	5.1900e-003		268.6214
Total	0.1759	2.4554	1.6541	8.3100e-003	0.4293	0.0138	0.4430	0.1170	0.0131	0.1301		886.4446	886.4446	0.0579		887.8929

3.5 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2576	1.5515	1.6797	2.3900e-003		0.0891	0.0891		0.0858	0.0858		206.2825	206.2825	0.0412		207.3115
Total	0.2576	1.5515	1.6797	2.3900e-003		0.0891	0.0891		0.0858	0.0858		206.2825	206.2825	0.0412		207.3115

1095 Rollin Roads - San Mateo County, Summer

3.5 Building Construction - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0655	2.1567	0.9009	5.5400e-003	0.1417	4.9100e-003	0.1467	0.0408	4.6900e-003	0.0455		610.2618	610.2618	0.0519		611.5581
Worker	0.0897	0.0512	0.6707	2.6000e-003	0.2875	1.6800e-003	0.2892	0.0763	1.5400e-003	0.0778		258.9197	258.9197	4.6700e-003		259.0364
Total	0.1553	2.2079	1.5716	8.1400e-003	0.4293	6.5900e-003	0.4358	0.1171	6.2300e-003	0.1233		869.1815	869.1815	0.0565		870.5945

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0374	0.6809	1.5350	2.3900e-003		3.1200e-003	3.1200e-003		3.1200e-003	3.1200e-003	0.0000	206.2825	206.2825	0.0412		207.3115
Total	0.0374	0.6809	1.5350	2.3900e-003		3.1200e-003	3.1200e-003		3.1200e-003	3.1200e-003	0.0000	206.2825	206.2825	0.0412		207.3115

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3.5 Building Construction - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0655	2.1567	0.9009	5.5400e-003	0.1417	4.9100e-003	0.1467	0.0408	4.6900e-003	0.0455		610.2618	610.2618	0.0519		611.5581
Worker	0.0897	0.0512	0.6707	2.6000e-003	0.2875	1.6800e-003	0.2892	0.0763	1.5400e-003	0.0778		258.9197	258.9197	4.6700e-003		259.0364
Total	0.1553	2.2079	1.5716	8.1400e-003	0.4293	6.5900e-003	0.4358	0.1171	6.2300e-003	0.1233		869.1815	869.1815	0.0565		870.5945

3.5 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2332	1.4601	1.6580	2.3900e-003		0.0757	0.0757		0.0729	0.0729		206.2825	206.2825	0.0398		207.2766
Total	0.2332	1.4601	1.6580	2.3900e-003		0.0757	0.0757		0.0729	0.0729		206.2825	206.2825	0.0398		207.2766

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3.5 Building Construction - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0616	2.0293	0.9012	5.4500e-003	0.1418	4.3300e-003	0.1461	0.0408	4.1400e-003	0.0449		602.4021	602.4021	0.0516		603.6908
Worker	0.0845	0.0462	0.6257	2.5000e-003	0.2875	1.6400e-003	0.2892	0.0763	1.5100e-003	0.0778		249.4276	249.4276	4.2200e-003		249.5330
Total	0.1461	2.0755	1.5269	7.9500e-003	0.4293	5.9700e-003	0.4352	0.1171	5.6500e-003	0.1227		851.8296	851.8296	0.0558		853.2238

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0374	0.6809	1.5350	2.3900e-003		3.1200e-003	3.1200e-003		3.1200e-003	3.1200e-003	0.0000	206.2825	206.2825	0.0398		207.2766
Total	0.0374	0.6809	1.5350	2.3900e-003		3.1200e-003	3.1200e-003		3.1200e-003	3.1200e-003	0.0000	206.2825	206.2825	0.0398		207.2766

1095 Rollin Roads - San Mateo County, Summer

3.5 Building Construction - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0616	2.0293	0.9012	5.4500e-003	0.1418	4.3300e-003	0.1461	0.0408	4.1400e-003	0.0449		602.4021	602.4021	0.0516		603.6908
Worker	0.0845	0.0462	0.6257	2.5000e-003	0.2875	1.6400e-003	0.2892	0.0763	1.5100e-003	0.0778		249.4276	249.4276	4.2200e-003		249.5330
Total	0.1461	2.0755	1.5269	7.9500e-003	0.4293	5.9700e-003	0.4352	0.1171	5.6500e-003	0.1227		851.8296	851.8296	0.0558		853.2238

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	lb/day										lb/day					
Archit. Coating	6.6809					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	1.2004	8.4068	10.0454	0.0164		0.5155	0.5155		0.5155	0.5155		1,554.8447	1,554.8447	0.1109		1,557.6158
Total	7.8813	8.4068	10.0454	0.0164		0.5155	0.5155		0.5155	0.5155		1,554.8447	1,554.8447	0.1109		1,557.6158

1095 Rollin Roads - San Mateo County, Summer

3.6 Architectural Coating - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0897	0.0512	0.6707	2.6000e-003	0.2875	1.6800e-003	0.2892	0.0763	1.5400e-003	0.0778		258.9197	258.9197	4.6700e-003		259.0364
Total	0.0897	0.0512	0.6707	2.6000e-003	0.2875	1.6800e-003	0.2892	0.0763	1.5400e-003	0.0778		258.9197	258.9197	4.6700e-003		259.0364

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	6.6809					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1666	0.7983	10.1446	0.0164		0.0219	0.0219		0.0219	0.0219	0.0000	1,554.8447	1,554.8447	0.1109		1,557.6158
Total	6.8475	0.7983	10.1446	0.0164		0.0219	0.0219		0.0219	0.0219	0.0000	1,554.8447	1,554.8447	0.1109		1,557.6158

1095 Rollin Roads - San Mateo County, Summer

3.6 Architectural Coating - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0897	0.0512	0.6707	2.6000e-003	0.2875	1.6800e-003	0.2892	0.0763	1.5400e-003	0.0778		258.9197	258.9197	4.6700e-003		259.0364
Total	0.0897	0.0512	0.6707	2.6000e-003	0.2875	1.6800e-003	0.2892	0.0763	1.5400e-003	0.0778		258.9197	258.9197	4.6700e-003		259.0364

3.6 Architectural Coating - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	6.6809					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	1.1217	7.7557	10.0237	0.0164		0.4478	0.4478		0.4477	0.4477		1,554.8447	1,554.8447	0.1054		1,557.4804
Total	7.8027	7.7557	10.0237	0.0164		0.4478	0.4478		0.4477	0.4477		1,554.8447	1,554.8447	0.1054		1,557.4804

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3.6 Architectural Coating - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0845	0.0462	0.6257	2.5000e-003	0.2875	1.6400e-003	0.2892	0.0763	1.5100e-003	0.0778		249.4276	249.4276	4.2200e-003		249.5330
Total	0.0845	0.0462	0.6257	2.5000e-003	0.2875	1.6400e-003	0.2892	0.0763	1.5100e-003	0.0778		249.4276	249.4276	4.2200e-003		249.5330

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	6.6809					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1666	0.7983	10.1446	0.0164		0.0219	0.0219		0.0219	0.0219	0.0000	1,554.8447	1,554.8447	0.1054		1,557.4804
Total	6.8475	0.7983	10.1446	0.0164		0.0219	0.0219		0.0219	0.0219	0.0000	1,554.8447	1,554.8447	0.1054		1,557.4804

1095 Rollin Roads - San Mateo County, Summer

3.6 Architectural Coating - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0845	0.0462	0.6257	2.5000e-003	0.2875	1.6400e-003	0.2892	0.0763	1.5100e-003	0.0778		249.4276	249.4276	4.2200e-003		249.5330
Total	0.0845	0.0462	0.6257	2.5000e-003	0.2875	1.6400e-003	0.2892	0.0763	1.5100e-003	0.0778		249.4276	249.4276	4.2200e-003		249.5330

3.7 Paving - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1013	1.0324	1.3546	2.0600e-003		0.0529	0.0529		0.0487	0.0487		199.4727	199.4727	0.0645		201.0855
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.1013	1.0324	1.3546	2.0600e-003		0.0529	0.0529		0.0487	0.0487		199.4727	199.4727	0.0645		201.0855

1095 Rollin Roads - San Mateo County, Summer

3.7 Paving - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0845	0.0462	0.6257	2.5000e-003	0.2875	1.6400e-003	0.2892	0.0763	1.5100e-003	0.0778		249.4276	249.4276	4.2200e-003		249.5330
Total	0.0845	0.0462	0.6257	2.5000e-003	0.2875	1.6400e-003	0.2892	0.0763	1.5100e-003	0.0778		249.4276	249.4276	4.2200e-003		249.5330

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0253	0.1095	1.5576	2.0600e-003		3.3700e-003	3.3700e-003		3.3700e-003	3.3700e-003	0.0000	199.4727	199.4727	0.0645		201.0855
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.0253	0.1095	1.5576	2.0600e-003		3.3700e-003	3.3700e-003		3.3700e-003	3.3700e-003	0.0000	199.4727	199.4727	0.0645		201.0855

1095 Rollin Roads - San Mateo County, Summer

3.7 Paving - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0845	0.0462	0.6257	2.5000e-003	0.2875	1.6400e-003	0.2892	0.0763	1.5100e-003	0.0778		249.4276	249.4276	4.2200e-003		249.5330
Total	0.0845	0.0462	0.6257	2.5000e-003	0.2875	1.6400e-003	0.2892	0.0763	1.5100e-003	0.0778		249.4276	249.4276	4.2200e-003		249.5330

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Increase Density

Improve Destination Accessibility

Increase Transit Accessibility

Integrate Below Market Rate Housing

1095 Rollin Roads - San Mateo County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.8392	1.6718	5.6453	0.0162	1.4662	0.0143	1.4805	0.3926	0.0133	0.4059		1,639.299 3	1,639.299 3	0.0637		1,640.8911
Unmitigated	0.9857	2.2379	8.9441	0.0310	2.9475	0.0244	2.9720	0.7893	0.0228	0.8121		3,131.106 6	3,131.106 6	0.1101		3,133.858 0

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	816.00	816.00	816.00	1,387,473	690,152
Enclosed Parking with Elevator	0.00	0.00	0.00		
Total	816.00	816.00	816.00	1,387,473	690,152

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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	5.26	5.26	5.26	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

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.470625	0.050338	0.265549	0.140745	0.017339	0.006996	0.024054	0.006595	0.004215	0.003104	0.009159	0.000488	0.000793
Enclosed Parking with Elevator	0.470625	0.050338	0.265549	0.140745	0.017339	0.006996	0.024054	0.006595	0.004215	0.003104	0.009159	0.000488	0.000793

1095 Rollin Roads - San Mateo County, Summer

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0387	0.3306	0.1407	2.1100e-003		0.0267	0.0267		0.0267	0.0267		422.0998	422.0998	8.0900e-003	7.7400e-003	424.6081
NaturalGas Unmitigated	0.0387	0.3306	0.1407	2.1100e-003		0.0267	0.0267		0.0267	0.0267		422.0998	422.0998	8.0900e-003	7.7400e-003	424.6081

1095 Rollin Roads - San Mateo County, Summer

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	3587.85	0.0387	0.3306	0.1407	2.1100e-003		0.0267	0.0267		0.0267	0.0267		422.0998	422.0998	8.0900e-003	7.7400e-003	424.6081
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
Total		0.0387	0.3306	0.1407	2.1100e-003		0.0267	0.0267		0.0267	0.0267		422.0998	422.0998	8.0900e-003	7.7400e-003	424.6081

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	3.58785	0.0387	0.3306	0.1407	2.1100e-003		0.0267	0.0267		0.0267	0.0267		422.0998	422.0998	8.0900e-003	7.7400e-003	424.6081
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
Total		0.0387	0.3306	0.1407	2.1100e-003		0.0267	0.0267		0.0267	0.0267		422.0998	422.0998	8.0900e-003	7.7400e-003	424.6081

6.0 Area Detail**6.1 Mitigation Measures Area**

1095 Rollin Roads - San Mateo County, Summer

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.3166	0.2588	12.4303	1.3900e-003		0.0779	0.0779		0.0779	0.0779	0.0000	170.5244	170.5244	0.0243	2.7200e-003	171.9414
Unmitigated	4.3166	0.2588	12.4303	1.3900e-003		0.0779	0.0779		0.0779	0.0779	0.0000	170.5244	170.5244	0.0243	2.7200e-003	171.9414

1095 Rollin Roads - San Mateo County, Summer

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3588					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.5711					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0136	0.1161	0.0494	7.4000e-004		9.3900e-003	9.3900e-003		9.3900e-003	9.3900e-003	0.0000	148.2353	148.2353	2.8400e-003	2.7200e-003	149.1162
Landscaping	0.3732	0.1427	12.3809	6.5000e-004		0.0685	0.0685		0.0685	0.0685		22.2891	22.2891	0.0214		22.8252
Total	4.3166	0.2588	12.4303	1.3900e-003		0.0779	0.0779		0.0779	0.0779	0.0000	170.5244	170.5244	0.0243	2.7200e-003	171.9414

1095 Rollin Roads - San Mateo County, Summer

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3588					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.5711					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0136	0.1161	0.0494	7.4000e-004		9.3900e-003	9.3900e-003		9.3900e-003	9.3900e-003	0.0000	148.2353	148.2353	2.8400e-003	2.7200e-003	149.1162
Landscaping	0.3732	0.1427	12.3809	6.5000e-004		0.0685	0.0685		0.0685	0.0685		22.2891	22.2891	0.0214		22.8252
Total	4.3166	0.2588	12.4303	1.3900e-003		0.0779	0.0779		0.0779	0.0779	0.0000	170.5244	170.5244	0.0243	2.7200e-003	171.9414

7.0 Water Detail**7.1 Mitigation Measures Water**

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail**8.1 Mitigation Measures Waste**

1095 Rollin Roads - San Mateo County, Summer

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation



Attachment C

Health Risk Assessment Calculations and Screening Values

Unmitigated Construction Emissions Used in HARP 2.0 for Construction HRA

On-site Unmitigated Construction Emissions

Demolition (7/1/2020-9/2/2020)

	Total Tons		2020 lbs/day	lbs/hr
PM10 (DPM)	0.00834	10%	0.3624	0.0453
PM2.5 (Exhau:	0.00953	11%	0.4143	0.0517875

Site-Preparation (9/3/2020-9/10/2020)

	Total tons		2020 lbs/day	lbs/hr
PM10 (DPM)	0.00101	1%	0.3374	0.042175
PM2.5 (Exhau:	0.00391	5%	1.3035	0.1629375

Grading (9/11/2020-11/20/2020)

	Total Tons		2020 lbs/day	lbs/hr
PM10 (DPM)	0.00815	10%	0.3197	0.0399625
PM2.5 (Exhau:	0.00798	9%	0.3128	0.0391

Building Construction (11/23/2020-02/21/2022)

	Total Tons		2020 lbs/day	lbs/hr	2021 lbs/day	lbs/hr	2022 lbs/day	lbs/hr
PM10 (DPM)	0.01446	18%	0.1037	0.0129625	0.0891	0.0111375	0.0757	0.0094625
PM2.5 (Exhau:	0.01396	16%	0.0999	0.0124875	0.0858	0.010725	0.0729	0.0091125

Paving (02/22/2022-03/22/2022)

	Total Tons				2022 lbs/day	lbs/hr
PM10 (DPM)	0.00056	1%			0.0529	0.0066125
PM2.5 (Exhau:	0.00051	1%			0.0487	0.0060875

Architectural Coating (05/24/2021-02/21/2022)

	Total Tons		2021 lbs/day	lbs/hr	2022 lbs/day	lbs/hr
PM10 (DPM)	0.04926	60%	0.5155	0.0644375	0.4478	0.055975
PM2.5 (Exhau:	0.04926	58%	0.5155	0.0644375	0.4477	0.0559625

*Used un-mitigated on-site construction emissions by phase. Max daily emissions are from "Winter" CalEEMod Results and include any phase overlap

*DPM emissions are represented by PM₁₀ exhaust emissions; total PM_{2.5} emissions used for PM_{2.5} concentration

Hauling/Vendor emissions

Demolition (7/1/2020-9/2/2020) [Hauling]

	Total Tons	tons/mile	Tons associated w site	2020 lbs/day	lbs/hr	lbs/min	# Hauling Trips	Hauling Trip Leng	Total VMT	lbs
PM10 (DPM)	0.00006	2.67857E-08	0.0000003	0.00248	0.00031	5.16667E-06	112	20	2240	2.58333E-06
PM2.5 (Exhau:	0.00031	1.38393E-07	0.00000155	0.0139	0.0017375	2.89583E-05	112	20	2240	1.44792E-05

Grading (9/11/2020-11/20/2020) [Hauling]

2020										
	Total tons	tons/mile	Tons associated w site	lbs/day	lbs/hr	lbs/min	# Hauling Trips	Hauling Trip Leng	Total VMT	
PM10 (DPM)	0.00147	2.5017E-08	0.00000735	0.0587	0.0073375	0.000122292	2938	20	58760	6.11458E-05
PM2.5 (Exhau:	0.00816	1.3887E-07	0.0000408	0.3299	0.0412375	0.000687292	2938	20	58760	0.000343646
Building Construction (11/23/2020-02/21/2022) [Vendor]										
2020										
	Total Tons	tons/mile	Tons associated w site	lbs/day	lbs/hr	lbs/min	lbs/day	lbs/hr	lbs/min	lbs/day
PM10 (DPM)	0.00091	5.93607E-06	1.24658E-05	0.0123	0.0015375	0.000025625	0.00515	0.00064375	1.07292E-05	0.00455
PM2.5 (Exhau:	0.00732	4.77495E-05	0.000100274	0.0526	0.006575	0.000109583	0.0457	0.0057125	9.52083E-05	0.0056375
* 0.1 miles of each hauling or vendor trip was assumed to represent the vehilce travel while at or near the construction site (within 1000 ft radius of site)										

No Hauling Emissions Included									
Total Tons/Avg lbs/year		2020		2021		2022		All Years Max	
		Max lbs/day	Max lbs/hr	Max lbs/day	Max lbs/hr	Max lbs/day	Max lbs/hr	Max lbs/day	Max lbs/hr
PM10 (DPM)	0.08178 93.46285714	0.3624	0.0453	0.6046	0.075575	0.5235	0.0654375	0.6046	0.075575
PM2.5 (Exhau:	0.08515 97.31428571	1.3035	0.1629375	0.6013	0.0751625	0.5206	0.065075	1.3035	0.1629375
Hauling Emissions Included									
Total Tons/Avg lbs/year		2020		2021		2022		All Years Max	
		Max lbs/day	Max lbs/hr	Max lbs/day	Max lbs/hr	Max lbs/day	Max lbs/hr	Max lbs/day	Max lbs/hr
PM10 (DPM)	0.0818 93.48584658	0.43588	0.054485	0.60975	0.07621875	0.52805	0.06600625	0.60975	0.07621875
PM2.5 (Exhau:	0.085293 97.47728454	1.6999	0.2124875	0.647	0.080875	0.5657	0.0707125	1.6999	0.2124875

Mitigated Construction Emissions Used in HARP 2.0 for Construction HRA

On-site Tier 4 Mitigated Emissions from Construction Equipment

Demolition (7/1/2020-9/2/2020)

	Total Tons		lbs/day	lbs/hr
PM10 (DPM)	0.00042	12%		
PM2.5 (Exhaust)	0.00124	21%		
			0.0183	0.0022875
			0.0541	0.0067625

Site-Preparation (9/3/2020-9/10/2020)

	Total tons		lbs/day	lbs/hr
PM10 (DPM)	0.00004	1%		
PM2.5 (Exhaust)	0.00138	23%		
			0.0121	0.0015125
			0.459	0.057375

Grading (9/11/2020-11/20/2020)

	Total Tons		lbs/day	lbs/hr
PM10 (DPM)	0.00046	13%		
PM2.5 (Exhaust)	0.00059	10%		
			0.0182	0.002275
			0.0231	0.0028875

Building Construction (11/23/2020-02/21/2022)

			2020		2021		2022	
Total Tons			lbs/day	lbs/hr	lbs/day	lbs/hr	lbs/day	lbs/hr
PM10 (DPM)	0.00052	14%	0.00312	0.00039	0.00312	0.00039	0.00312	0.00039
PM2.5 (Exhaust)	0.00052	9%	0.00312	0.00039	0.00312	0.00039	0.00312	0.00039

Paving (02/22/2022-03/22/2022)

			2022	
	Total Tons		lbs/day	lbs/hr
PM10 (DPM)	0.00004	1%	0.00337	0.00042125
PM2.5 (Exhaust)	0.00004	1%	0.00337	0.00042125

Architectural Coating (05/24/2021-02/21/2022)

			2021		2022	
Total Tons			lbs/day	lbs/hr	lbs/day	lbs/hr
PM10 (DPM)	0.00214	59%	0.0219	0.0027375	0.0219	0.0027375
PM2.5 (Exhaust)	0.00214	36%	0.0219	0.0027375	0.0219	0.0027375

*Used un-mitigated on-site construction emissions by phase. Max daily emissions are from "Winter" CalEEMod Results and include any phase overlap

*DPM emissions are represented by PM10 exhaust emissions; total PM2.5 emissions used for PM2.5 concentration

Hauling/Vendor emissions

Demolition (7/1/2020-9/2/2020) [Hauling]

	Total Tons	tons/mile	Tons associated w site	2020	lbs/day	lbs/hr	lbs/min	# Hauling Trips	Hauling Trip Leng	Total VMT	lbs
PM10 (DPM)	0.00006	2.68E-08	3E-07		0.00248	0.00031	5.16667E-06	112	20	2240	2.58333E-06
PM2.5 (Exhaust)	0.00031	1.38E-07	1.55E-06		0.0139	0.0017375	2.89583E-05	112	20	2240	1.44792E-05

Grading (9/11/2020-11/20/2020) [Hauling]

	Total tons	tons/mile	Tons associated w site	lbs/day	lbs/hr	lbs/min	# Hauling Trips	Hauling Trip Leng	Total VMT	
PM10 (DPM)	0.00147	2.5E-08	7.35E-06		0.0587	0.0073375	0.000122292	2938	20	58760 6.11458E-05
PM2.5 (Exhaus	0.00816	1.39E-07	4.08E-05		0.3299	0.0412375	0.000687292	2938	20	58760 0.000343646

Building Construction (11/23/2020-02/21/2022) [Vendor]

	Total Tons	tons/mile	Tons associated w site	lbs/day	lbs/hr	lbs/min	lbs/day	lbs/hr	lbs/min	lbs/day	lbs/hr	lbs/min
PM10 (DPM)	0.00091	5.94E-06	1.25E-05		0.0123	0.0015375	0.000025625	0.00515	0.00064375	1.07292E-05	0.00455	0.00056875 9.48E-06
PM2.5 (Exhaus	0.00732	4.77E-05	0.0001		0.0526	0.006575	0.000109583	0.0457	0.0057125	9.52083E-05	0.0451	0.0056375 9.4E-05

* 0.1 miles of each hauling or vendor trip was assumed to represent the vehilce travel while at or near the construction site (within 1000 ft radius of site)

No Hauling Emissions Included

				2020		2021		2022		All Years Max	
Total Tons/ Avg lbs/yr: Reduction				Max lbs/day	Max lbs/hr	Max lbs/day	Max lbs/hr	Max lbs/day	Max lbs/hr	Max lbs/day	Max lbs/hr
PM10 (DPM)	0.00362	4.137143	96%	0.0183	0.0022875	0.02502	0.0031275	0.02502	0.0031275	0.02502	0.0031275
PM2.5 (Exhaus	0.00591	6.754286	93%	0.459	0.057375	0.02502	0.0031275	0.02502	0.0031275	0.459	0.057375

Hauling Emissions Included

Total Tons/ Avg lbs/year		2020		2021		2022		All Years Max		
		Max lbs/day	Max lbs/hr	Max lbs/day	Max lbs/hr	Max lbs/day	Max lbs/hr	Max lbs/day	Max lbs/hr	
PM10 (DPM)	0.00364	4.160132	0.09178	0.0114725	0.03017	0.00377125	0.02957	0.00369625	0.09178	0.0114725
PM2.5 (Exhaus	0.006053	6.917285	0.8554	0.106925	0.07072	0.00884	0.07012	0.008765	0.8554	0.106925

Summary of HARP 2.0 Health Risk Results for Construction HRA

AERMOD Summary Results for Health Risk Analysis from Unmitigated Construction (includes hauling)

Floor	Flag Pole E REC	GRP	NETID	X	Y	SCENARIO	INH_RISK	DPM CONC	PM2.5 CONC	MAX_HI SUM	CANCER_RISK_SUM
1	1.2	626 SENSITIV	SR1	556445.9	4160321	2YrCancerDerived_InhSoilDermMMilk_FAH3to70	4.29E-05	0.1475412	0.1538405	0.029508	4.29E-05
1	1.2	627 SENSITIV	SR2	556465.8	4160315	2YrCancerDerived_InhSoilDermMMilk_FAH3to70	7.23E-05	0.2486626	0.2592794	0.049733	7.23E-05
1	1.2	628 SENSITIV	SR3	556494.9	4160300	2YrCancerDerived_InhSoilDermMMilk_FAH3to70	8.98E-05	0.3087793	0.3219629	0.061756	8.98E-05
1	1.2	629 SENSITIV	SR4	556528.4	4160282	2YrCancerDerived_InhSoilDermMMilk_FAH3to70	7.65E-05	0.2631618	0.2743977	0.052632	7.65E-05
1	1.2	630 SENSITIV	SR5	556560	4160297	2YrCancerDerived_InhSoilDermMMilk_FAH3to70	1.37E-04	0.4714025	0.4915293	0.094281	1.37E-04

AERMOD Summary Results for Health Risk Analysis from Tier 4 Mitigated Construction (includes hauling)

Floor	Flag Pole E REC	GRP	NETID	X	Y	SCENARIO	INH_RISK	DPM CONC	PM2.5 CONC	MAX_HI SUM	CANCER_RISK_SUM
1	1.2	626 SENSITIV	SR1	556445.9	4160321	2YrCancerDerived_InhSoilDermMMilk_FAH3to70	1.91E-06	0.0065656	0.01091699	0.0013131	1.91E-06
1	1.2	627 SENSITIV	SR2	556465.8	4160315	2YrCancerDerived_InhSoilDermMMilk_FAH3to70	3.22E-06	0.01106552	0.01839925	0.0022131	3.22E-06
1	1.2	628 SENSITIV	SR3	556494.9	4160300	2YrCancerDerived_InhSoilDermMMilk_FAH3to70	4.00E-06	0.01374072	0.02284746	0.0027481	4.00E-06
1	1.2	629 SENSITIV	SR4	556528.4	4160282	2YrCancerDerived_InhSoilDermMMilk_FAH3to70	3.41E-06	0.01171074	0.01947209	0.0023421	3.41E-06
1	1.2	630 SENSITIV	SR5	556560	4160297	2YrCancerDerived_InhSoilDermMMilk_FAH3to70	6.10E-06	0.02097747	0.03488042	0.0041955	6.10E-06

Screening HRA Data from BAAQMD for Highway, Road and Railroads

8/21/2019

HEALTH RISK: ROAD AND RAIL – YR2014

1095 ROLLINS RD. SAN MATEO, CA

Project Fence line Receptor

37.588339

-122.359051

	Type	Risk
Cancer	Highway/Freeway	76.623 per million
	Major Street	0.103 per million
	Rail	26.03 per million
PM2.5	Highway/Freeway	1.489 ug/m ³
	Major Street	0.003 ug/m ³
	Rail	0.051 ug/m ³

Project Fence line Receptor

37.588017

-122.359507

	Type	Risk
Cancer	Highway/Freeway	34.411 per million
	Major Street	0.102 per million
	Rail	31.06 per million
PM2.5	Highway/Freeway	0.678 ug/m ³
	Major Street	0.003 ug/m ³
	Rail	0.059 ug/m ³

Project Fence line Receptor

37.588409

-122.360444

	Type	Risk
Cancer	Highway/Freeway	26.644 per million
	Major Street	0.106 per million
	Rail	31.08 per million
PM2.5	Highway/Freeway	0.587 ug/m ³
	Major Street	0.003 ug/m ³
	Rail	0.059 ug/m ³

Project Fence line Receptor

37.58867	-122.360351
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	Type	Risk
Cancer	Highway/Freeway	45.305 per million
	Major Street	0.107 per million
	Rail	28.306 per million
PM2.5	Highway/Freeway	0.888 ug/m ³
	Major Street	0.0027 ug/m ³
	Rail	0.054 ug/m ³

Project Fence line Receptor

37.58854	-122.359593
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	Type	Risk
Cancer	Highway/Freeway	59.562 per million
	Major Street	0.104 per million
	Rail	26.594 per million
PM2.5	Highway/Freeway	1.162 ug/m ³
	Major Street	0.003 ug/m ³
	Rail	0.051 ug/m ³

Construction MEI Coordinates

37.587998	-122.35936
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	Type	Risk
Cancer	Highway/Freeway	34.411 per million
	Major Street	0.102 per million
	Rail	31.066 per million
PM2.5	Highway/Freeway	0.678 ug/m ³
	Major Street	0.003 ug/m ³
	Rail	0.059 ug/m ³

METHOD/DATA

Cancer risk and PM2.5 were modeled in AERMOD for all highways/freeways and roadways >30,000 AADT (annual average daily traffic) and rail in 20 x 20 meter grid cells. The files incorporate AADT for that highway using EMFAC 2014 data for fleet mix and includes OEHHA's 2015 Air Toxics Hot Spots Guidance methods. Maximum risk within proposed parcel/site are shown in table above.

THRESHOLDS OF SIGNIFICANCE BASED ON CEQA GUIDANCE:

Local community risk and hazard impacts are associated with Toxic Air Contaminants (TACs) and fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less (PM_{2.5}) because emissions of these pollutants can have significant health impacts at the local level. If emissions of TACs or PM_{2.5} exceed any of the Thresholds of Significance, a project would result in a significant impact.

SIGNIFICANCE THRESHOLD	
CANCER	100 in a million (from all local sources)
AMBIENT PM2.5	0.8 ug/m ³ (from all local sources)

Note: These are screening level values. A site-specific health risk assessment will provide a more accurate representation of risk.

BAAQMD Provided Emissions Data for Permitted Facilities within 1,000 ft of the Project Site (via Stationary Source Inquiry Form)

Facility ID	Facility Name	Period Start Date	Period End Date	Device ID	Device Name	Maximum Hours Per Day	Days Per Week	P Category	Type	Sub Type	Material ID	Material T	Material N	Density	VOC Cont	Sulfur Cont	Material U	Usage Unit	Pollutant I	Pollutant F	Factor	Factor Poli	Factor Usa	Factor Unit	Factor Bas	Material C	Material U	Unabated / Unabated	Emissions Abated	Abated	Abated Ho	Emission U	
3226	Hanson's Auto Repair	11/30/2018	11/30/2019 S2	Auto Body	16	8	5	S2	Auto Body	Auto Body Coating Op	10004	Auto Body Coating	12	2.4	145 Gallons	734	Parachlorobenzenitrilofluoride (PCBTF)	20 Weight %	348	1.338462	0.167308 lbs	348	1.338462	0.167308 lbs	348	1.338462	0.167308 lbs	348	1.338462	0.167308 lbs	348	1.338462	0.167308 lbs
3226	Hanson's Auto Repair	11/30/2018	11/30/2019 S2	Auto Body	16	8	5	S2	Auto Body	Auto Body Coating Op	10004	Auto Body Coating	12	2.4	145 Gallons	10018	Aromatic hydrocarbons - other/not spec	0 Weight %	348	1.338462	0.167308 lbs	348	1.338462	0.167308 lbs	348	1.338462	0.167308 lbs	348	1.338462	0.167308 lbs	348	1.338462	0.167308 lbs
3226	Hanson's Auto Repair	11/30/2018	11/30/2019 S2	Auto Body	16	8	5	S2	Solvent	Solvent Cleaning	10002	Auto Body Cleanup So	7	7	15 Gallons	27	Volatle hydrocarbons -other/not spec	30 Weight %	315	0.121154	0.051544 lbs	315	0.121154	0.051544 lbs	315	0.121154	0.051544 lbs	315	0.121154	0.051544 lbs	315	0.121154	0.051544 lbs
3226	Hanson's Auto Repair	11/30/2018	11/30/2019 S2	Auto Body	16	8	5	S2	Solvent	Solvent Cleaning	10002	Auto Body Cleanup So	7	7	15 Gallons	49	Butyl acetate	9 Weight %	9	0.036346	0.004543 lbs	9	0.036346	0.004543 lbs	9	0.036346	0.004543 lbs	9	0.036346	0.004543 lbs	9	0.036346	0.004543 lbs
3226	Hanson's Auto Repair	11/30/2018	11/30/2019 S2	Auto Body	16	8	5	S2	Solvent	Solvent Cleaning	10002	Auto Body Cleanup So	7	7	15 Gallons	49	Butyl alcohol	9 Weight %	9	0.036346	0.004543 lbs	9	0.036346	0.004543 lbs	9	0.036346	0.004543 lbs	9	0.036346	0.004543 lbs	9	0.036346	0.004543 lbs
3226	Hanson's Auto Repair	11/30/2018	11/30/2019 S2	Auto Body	16	8	5	S2	Solvent	Solvent Cleaning	10002	Auto Body Cleanup So	7	7	15 Gallons	157	Isooprpyl alcohol	7 Weight %	7.35	0.028269	0.003534 lbs	7.35	0.028269	0.003534 lbs	7.35	0.028269	0.003534 lbs	7.35	0.028269	0.003534 lbs	7.35	0.028269	0.003534 lbs
3226	Hanson's Auto Repair	11/30/2018	11/30/2019 S2	Auto Body	16	8	5	S2	Solvent	Solvent Cleaning	10002	Auto Body Cleanup So	7	7	15 Gallons	293	Toluene	10 Weight %	10.5	0.040385	0.005048 lbs	10.5	0.040385	0.005048 lbs	10.5	0.040385	0.005048 lbs	10.5	0.040385	0.005048 lbs	10.5	0.040385	0.005048 lbs
3226	Hanson's Auto Repair	11/30/2018	11/30/2019 S2	Auto Body	16	8	5	S2	Solvent	Solvent Cleaning	10002	Auto Body Cleanup So	7	7	15 Gallons	307	Xylene	7 Weight %	7.35	0.028269	0.003534 lbs	7.35	0.028269	0.003534 lbs	7.35	0.028269	0.003534 lbs	7.35	0.028269	0.003534 lbs	7.35	0.028269	0.003534 lbs
3226	Hanson's Auto Repair	11/30/2018	11/30/2019 S2	Auto Body	16	8	5	S2	Solvent	Solvent Cleaning	10002	Auto Body Cleanup So	7	7	15 Gallons	455	Acetone	30 Weight %	315	0.121154	0.051544 lbs	315	0.121154	0.051544 lbs	315	0.121154	0.051544 lbs	315	0.121154	0.051544 lbs	315	0.121154	0.051544 lbs
21032	Dent Wizard Interntions	10/31/2015	10/31/2016 S2	Auto Body	16	8	5	S2	Auto Body	Auto Body Coating Op	10004	Auto Body Coating	12	2.4	800 Gallons	734	Parachlorobenzenitrilofluoride (PCBTF)	20 Weight %	1920	7.384615	0.923077 lbs	1920	7.384615	0.923077 lbs	1920	7.384615	0.923077 lbs	1920	7.384615	0.923077 lbs	1920	7.384615	0.923077 lbs
21032	Dent Wizard Interntions	10/31/2015	10/31/2016 S2	Auto Body	16	8	5	S2	Auto Body	Auto Body Coating Op	10004	Auto Body Coating	12	2.4	800 Gallons	10018	Volatile Organic Compounds - Total	0 Weight %	1920	7.384616	0.923077 lbs	1920	7.384616	0.923077 lbs	1920	7.384616	0.923077 lbs	1920	7.384616	0.923077 lbs	1920	7.384616	0.923077 lbs
21032	Dent Wizard Interntions	10/31/2015	10/31/2016 S2	Auto Body	16	8	5	S2	Solvent	Solvent Cleaning	10002	Auto Body Cleanup So	7	7	300 Gallons	27	Aromatic hydrocarbons -other/not spec	30 Weight %	630	2.423077	0.302885 lbs	630	2.423077	0.302885 lbs	630	2.423077	0.302885 lbs	630	2.423077	0.302885 lbs	630	2.423077	0.302885 lbs
21032	Dent Wizard Interntions	10/31/2015	10/31/2016 S2	Auto Body	16	8	5	S2	Solvent	Solvent Cleaning	10002	Auto Body Cleanup So	7	7	300 Gallons	48	Butyl acetate	9 Weight %	189	0.726923	0.090865 lbs	189	0.726923	0.090865 lbs	189	0.726923	0.090865 lbs	189	0.726923	0.090865 lbs	189	0.726923	0.090865 lbs
21032	Dent Wizard Interntions	10/31/2015	10/31/2016 S2	Auto Body	16	8	5	S2	Solvent	Solvent Cleaning	10002	Auto Body Cleanup So	7	7	300 Gallons	49	Butyl alcohol	9 Weight %	189	0.726923	0.090865 lbs	189	0.726923	0.090865 lbs	189	0.726923	0.090865 lbs	189	0.726923	0.090865 lbs	189	0.726923	0.090865 lbs
21032	Dent Wizard Interntions	10/31/2015	10/31/2016 S2	Auto Body	16	8	5	S2	Solvent	Solvent Cleaning	10002	Auto Body Cleanup So	7	7	300 Gallons	157	Isooprpyl alcohol	7 Weight %	147	0.565385	0.070673 lbs	147	0.565385	0.070673 lbs	147	0.565385	0.070673 lbs	147	0.565385	0.070673 lbs	147	0.565385	0.070673 lbs
21032	Dent Wizard Interntions	10/31/2015	10/31/2016 S2	Auto Body	16	8	5	S2	Solvent	Solvent Cleaning	10002	Auto Body Cleanup So	7	7	300 Gallons	293	Toluene	10 Weight %	210	0.807692	0.100962 lbs	210	0.807692	0.100962 lbs	210	0.807692	0.100962 lbs	210	0.807692	0.100962 lbs	210	0.807692	0.100962 lbs
21032	Dent Wizard Interntions	10/31/2015	10/31/2016 S2	Auto Body	16	8	5	S2	Solvent	Solvent Cleaning	10002	Auto Body Cleanup So	7	7	300 Gallons	307	Xylene	7 Weight %	147	0.565385	0.070673 lbs	147	0.565385	0.070673 lbs	147	0.565385	0.070673 lbs	147	0.565385	0.070673 lbs	147	0.565385	0.070673 lbs
21032	Dent Wizard Interntions	10/31/2015	10/31/2016 S2	Auto Body	16	8	5	S2	Solvent	Solvent Cleaning	10002	Auto Body Cleanup So	7	7	300 Gallons	455	Acetone	30 Weight %	630	2.423077	0.302885 lbs	630	2.423077	0.302885 lbs	630	2.423077	0.302885 lbs	630	2.423077	0.302885 lbs	630	2.423077	0.302885 lbs
21931	Burlingtone Auto Body	8/31/2018	8/31/2019 S2	Auto Body	16	8	5	S2	Auto Body	Auto Body Coating Op	10004	Auto Body Coating	12	2.4	800 Gallons	734	Parachlorobenzenitrilofluoride (PCBTF)	20 Weight %	1920	7.384615	0.923077 lbs	1920	7.384615	0.923077 lbs	1920	7.384615	0.923077 lbs	1920	7.384615	0.923077 lbs	1920	7.384615	0.923077 lbs
21931	Burlingtone Auto Body	8/31/2018	8/31/2019 S2	Auto Body	16	8	5	S2	Auto Body	Auto Body Coating Op	10004	Auto Body Coating	12	2.4	800 Gallons	10018	Volatile Organic Compounds - Total	0 Weight %	1920	7.384616	0.923077 lbs	1920	7.384616	0.923077 lbs	1920	7.384616	0.923077 lbs	1920	7.384616	0.923077 lbs	1920	7.384616	0.923077 lbs
21931	Burlingtone Auto Body	8/31/2018	8/31/2019 S2	Auto Body	16	8	5	S2	Solvent	Solvent Cleaning	10002	Auto Body Cleanup So	7	7	300 Gallons	27	Aromatic hydrocarbons -other/not spec	30 Weight %	630	2.423077	0.302885 lbs	630	2.423077	0.302885 lbs	630	2.423077	0.302885 lbs	630	2.423077	0.302885 lbs	630	2.423077	0.302885 lbs
21931	Burlingtone Auto Body	8/31/2018	8/31/2019 S2	Auto Body	16	8	5	S2	Solvent	Solvent Cleaning	10002	Auto Body Cleanup So	7	7	300 Gallons	48	Butyl acetate	9 Weight %	189	0.726923	0.090865 lbs	189	0.726923	0.090865 lbs	189	0.726923	0.090865 lbs	189	0.726923	0.090865 lbs	189	0.726923	0.090865 lbs
21931	Burlingtone Auto Body	8/31/2018	8/31/2019 S2	Auto Body	16	8	5	S2	Solvent	Solvent Cleaning	10002	Auto Body Cleanup So	7	7	300 Gallons	49	Butyl alcohol	9 Weight %	189	0.726923	0.090865 lbs	189	0.726923	0.090865 lbs	189	0.726923	0.090865 lbs	189	0.726923	0.090865 lbs	189	0.726923	0.090865 lbs
21931	Burlingtone Auto Body	8/31/2018	8/31/2019 S2	Auto Body	16	8	5	S2	Solvent	Solvent Cleaning	10002	Auto Body Cleanup So	7	7	300 Gallons	157	Isooprpyl alcohol	7 Weight %	147	0.565385	0.070673 lbs	147	0.565385	0.070673 lbs	147	0.565385	0.070673 lbs	147	0.565385	0.070673 lbs	147	0.565385	0.070673 lbs
21931	Burlingtone Auto Body	8/31/2018	8/31/2019 S2	Auto Body	16	8	5	S2	Solvent	Solvent Cleaning	10002	Auto Body Cleanup So	7	7	300 Gallons	293	Toluene	10 Weight %	210	0.807692	0.100962 lbs	210	0.807692	0.100962 lbs	210	0.807692	0.100962 lbs	210	0.807692	0.100962 lbs	210	0.807692	0.100962 lbs
21931	Burlingtone Auto Body	8/31/2018	8/31/2019 S2	Auto Body	16	8	5	S2	Solvent	Solvent Cleaning	10002	Auto Body Cleanup So	7	7	300 Gallons	307	Xylene	7 Weight %	147	0.565385	0.070673 lbs	147	0.565385	0.070673 lbs	147	0.565385	0.070673 lbs	147	0.565385	0.070673 lbs	147	0.565385	0.070673 lbs
21931	Burlingtone Auto Body	8/31/2018	8/31/2019 S2	Auto Body	16	8	5	S2	Solvent	Solvent Cleaning	10002	Auto Body Cleanup So	7	7	300 Gallons	455	Acetone	30 Weight %	630	2.423077	0.302885 lbs	630	2.423077	0.302885 lbs	630	2.423077	0.302885 lbs	630	2.423077	0.302885 lbs	630	2.423077	0.302885 lbs
22932	La Body Collision	3/31/2018	3/31/2019 S2	Auto Body	16	8	5	S2	Auto Body	Auto Body Coating Op	10004	Auto Body Coating	12	2.4	800 Gallons	734	Parachlorobenzenitrilofluoride (PCBTF)	20 Weight %	1920	7.384615	0.923077 lbs	1920	7.384615	0.923077 lbs	1920	7.384615	0.923077 lbs	1920	7.384615	0.923077 lbs	1920	7.384615	0.923077 lbs
22932	La Body Collision	3/31/2018	3/31/2019 S2	Auto Body	16	8	5	S2	Auto Body	Auto Body Coating Op	10004	Auto Body Coating	12	2.4	800 Gallons	10018	Volatile Organic Compounds - Total	0 Weight %	1920	7.384616	0.923077 lbs	1920	7.384616	0.923077 lbs	1920	7.384616	0.923077 lbs	1920	7.384616	0.923077 lbs	1920	7.384616	0.923077 lbs
22932	La Body Collision	3/31/2018	3/31/2019 S2	Auto Body	16	8	5	S2	Solvent	Solvent Cleaning	10002	Auto Body Cleanup So	7	7	300 Gallons	27	Aromatic hydrocarbons -other/not spec	30 Weight %	630	2.423077	0.302885 lbs	630	2.423077	0.302885 lbs	630	2.423077	0.302885 lbs	630	2.423077	0.302885 lbs	630	2.423077	0.302885 lbs
22932	La Body Collision	3/31/2018	3/31/2019 S2	Auto Body	16	8	5	S2	Solvent	Solvent Cleaning	10002	Auto Body Cleanup So	7	7	300 Gallons	48	Butyl acetate	9 Weight %	189	0.726923	0.090865 lbs	189	0.726923	0.090865 lbs	189	0.726923	0.090865 lbs	189	0.726923	0.090865 lbs	189	0.726923	0.090865 lbs
22932	La Body Collision	3/31/2018	3/31/2019 S2	Auto Body	16	8	5	S2	Solvent	Solvent Cleaning	10002	Auto Body Cleanup So	7	7	300 Gallons	49	Butyl alcohol	9 Weight %	189	0.726923	0.090865 lbs	189	0.726923	0.090865 lbs	189	0.726923	0.090865 lbs	189	0.726923	0.090865 lbs	189	0.726923	0.090865 lbs
22932	La Body Collision	3/31/2018	3/31/2019 S2	Auto Body	16	8	5	S2	Solvent	Solvent Cleaning	10002	Auto Body Cleanup So	7	7	300 Gallons	157	Isooprpyl alcohol	7 Weight %	147	0.565385	0.070673 lbs	147	0.565385	0.070673 lbs	147	0.565385	0.070673 lbs	147	0.565385	0.070673 lbs	147	0.565385	0.070673 lbs
22932	La Body Collision	3/31/2018	3/31/2019 S2	Auto Body	16	8	5	S2	Solvent	Solvent Cleaning	10002	Auto Body Cleanup So	7	7	300 Gallons	293	Toluene	10 Weight %	210	0.807692	0.100962 lbs	210	0.807692	0.100962 lbs	210	0.807692	0.100962 lbs	210	0.807692	0.100962 lbs	210	0.807692	0.100962 lbs
22932	La Body Collision	3/31/2018	3/31/2019 S2	Auto Body	16	8	5	S2	Solvent	Solvent Cleaning	10002	Auto Body Cleanup So	7	7	300 Gallons	307	Xylene	7 Weight %	147	0.565385	0.070673 lbs	147	0.565385	0.070673 lbs	147	0.565385	0.070673 lbs	147	0.565385	0.070673 lbs	147	0.565385	0.070673 lbs
22932	La Body Collision	3/31/2018	3/31/2019																														

**BAAQMD Provided Emissions Data for Permitted Facilities within 1,000 ft of the Project
Site (via Stationary Source Inquiry Form)**

emissions_13079_2019

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Printed: AUG 19, 2019

DETAIL POLLUTANTS - ABATED

MOST RECENT P/O APPROVED (2019)

City of Burlingame (P# 13079)

S#	SOURCE NAME	SOURCE CODE	POLLUTANT	CODE	LBS/DAY
MATERIAL	THROUGHPUT	DATE			

1	Standby Generator Set				
		C22AG098			
			Benzene	41	9.12E-06
			Formaldehyde	124	7.55E-07
			Organics (other, including	990	4.41E-04
			Arsenic (all)	1030	7.95E-09
			Beryllium (all) pollutant	1040	4.66E-09
			Cadmium	1070	1.99E-08
			Chromium (hexavalent)	1095	4.11E-10
			Lead (all) pollutant	1140	1.68E-08
			Manganese	1160	2.64E-08
			Nickel pollutant	1180	3.21E-07
			Mercury (all) pollutant	1190	5.62E-09
			Diesel Engine Exhaust Part	1350	7.95E-05
			PAH's (non-speciated)	1840	4.19E-08
			Nitrous Oxide (N2O)	2030	2.44E-06
			Nitrogen Oxides (part not	2990	3.21E-03
			Sulfur Dioxide (SO2)	3990	2.98E-06
			Carbon Monoxide (CO) pollu	4990	9.18E-04
			Carbon Dioxide, non-biogen	6960	3.06E-01
			Methane (CH4)	6970	1.22E-05
2	Emergency Standby Diesel Generator Set				
		C22BG098			
			Benzene	41	2.19E-05
			Formaldehyde	124	1.81E-06
			Organics (other, including	990	2.03E-04
			Arsenic (all)	1030	1.91E-08
			Beryllium (all) pollutant	1040	1.12E-08
			Cadmium	1070	4.77E-08
			Chromium (hexavalent)	1095	9.86E-10
			Lead (all) pollutant	1140	4.04E-08
			Manganese	1160	6.35E-08
			Nickel pollutant	1180	7.71E-07
			Mercury (all) pollutant	1190	1.35E-08
			Diesel Engine Exhaust Part	1350	1.91E-04
			PAH's (non-speciated)	1840	1.01E-07
			Nitrous Oxide (N2O)	2030	5.87E-06
			Nitrogen Oxides (part not	2990	4.24E-03

emissions_13079_2019		
Sulfur Dioxide (SO2)	3990	7.15E-06
Carbon Monoxide (CO) pollu	4990	3.23E-03
Carbon Dioxide, non-biogen	6960	7.33E-01
Methane (CH4)	6970	2.93E-05

PLANT TOTAL:

lbs/day Pollutant

2.70E-08	Arsenic (all) (1030)
3.10E-05	Benzene (41)
1.58E-08	Beryllium (all) pollutant (1040)
6.75E-08	Cadmium (1070)
1.04E+00	Carbon Dioxide, non-biogenic CO2 (6960)
4.14E-03	Carbon Monoxide (CO) pollutant (4990)
1.40E-09	Chromium (hexavalent) (1095)
2.71E-04	Diesel Engine Exhaust Particulate Matter (1350)
2.57E-06	Formaldehyde (124)
5.73E-08	Lead (all) pollutant (1140)
8.99E-08	Manganese (1160)
1.91E-08	Mercury (all) pollutant (1190)
4.15E-05	Methane (CH4) (6970)
1.09E-06	Nickel pollutant (1180)
7.45E-03	Nitrogen Oxides (part not spec elsewhere) (2990)
8.31E-06	Nitrous Oxide (N2O) (2030)
6.44E-04	Organics (other, including CH4) (990)
1.43E-07	PAH's (non-speciated) (1840)
1.01E-05	Sulfur Dioxide (SO2) (3990)

Operational Screening Summary for Permitted Sources

*The BAAQMD Health Risk Calculator (Beta 3.0) was used to determine the health risk associated with each facility based on the BAAQMD provided emissions report. Health risk at the project site was estimated using the appropriate BAAQMD Distance Multiplier Tools. Below is a summary of the results.

Diesel Internal Combustion (IC) Engine Distance Multiplier Tool

13079: City of Burlginton Generator	PM2.5 Conc	Cancer Risk	Chronic HI
<i>At source</i>		0	0.38930871
Distance from Project Fenceline (feet)	PM2.5 Conc	Cancer Risk	Chronic HI
131.2336		0.225799052	0.000166346
164.042		0.194654355	0.000143402
Interpolated			
156		0	0.202288548

Permitted Facilities using the Generic Distance Multiplier

3226: Hanson's Auto Repair			
<i>At source</i>		0	0.000338377
Distance from MEI (feet)		Cancer Risk	Chronic HI
164.042		0	0.000229758
180.4462		0	0.000222652
Interpolated			
167		0	0.000224394
21032: Dent Wizard International			
<i>At source</i>		0	0.006767531
Distance from MEI (feet)		Cancer Risk	Chronic HI
377.2966		0	0.003004784
393.7008		0	0.002903271
Interpolated			
388		0	0.002928154
21393: Burlingame Auto Body			
<i>At source</i>		0	0.006767531
Distance from MEI (feet)		Cancer Risk	Chronic HI
459.3176		0	0.002544592
475.7218		0	0.002463381
Interpolated			
460		0	0.002483287
22932: La Bady Collision			
<i>At source</i>		0	0.006767531
Distance from MEI (feet)		Cancer Risk	Chronic HI
442.9134		0	0.002632569
459.3176		0	0.002544592
Interpolated			
456		0	0.002566157

Gasoline Dispensing Facility (GDF) Distance Multiplier Tool

G8335 (10885): Gus' Unocal Service Station			
Throughput: 6.4 million gallons/year		Cancer Risk	Chronic HI
<i>At source (20 m from center)</i>		24.974	0.041
Distance from Project Fenceline (feet)		Cancer Risk	Chronic HI
524.9344		1.03808379	0.00170423
541.3386		0.987723327	0.001621553
Interpolated			
537		1.001042715	0.001643419
G2778 (102778): Chevron Station		OLD	
Throughput: 600,000 gallons/year		Cancer Risk	Chronic HI

	<i>At source</i>		4.36	0.007
Distance from Project Fenceline (feet)		Cancer Risk		Chronic HI
	541.3386		0.172438284	0.00027685
	557.7428		0.164285709	0.000263761
	Interpolated			
	546		0.170121657	0.000273131
G6947 (112156): ARCO Facility #00508 (now Burlingame Car Wash Gas Station)				
Throughput:10 million gallons/year		OLD		
		Cancer Risk		Chronic HI
	<i>At source</i>		15.446	0.026
Distance from Project Fenceline (feet)		Cancer Risk		Chronic HI
	738.189		0.36912433	0.000621341
	754.5932		0.356212337	0.000599606
	Interpolated			
	753		0.357466369	0.000601717

Construction HRA Summary for Permitted Sources

*The BAAQMD Health Risk Calculator (Beta 3.0) was used to determine the health risk associated with each facility based on the BAAQMD provided emissions report. Health risk at the Construction MEI was estimated using the appropriate BAAQMD Distance Multiplier Tools. Below is a summary of the results.

Diesel Internal Combustion (IC) Engine Distance Multiplier Tool

13079: City of Burlginton Generator

<i>At source</i>	0	0.38930871	0.000286804
Distance from MEI (feet)	PM2.5 Conc	Cancer Risk	Chronic HI
524.9	0	0.038930871	0
590.6	0	0.035037784	0
Interpolated			
525	0	0.038924945	0

Permitted Facilities using the Generic Distance Multiplier

3226: Hanson's Auto Repair

<i>At source</i>	0	0.000338377
Distance from MEI (feet)	Cancer Risk	Chronic HI
377.2966	0	0.000150239
393.7008	0	0.000145164
Interpolated		
392	0	0.000150231

21032: Dent Wizard International

<i>At source</i>	0	0.006767531
Distance from MEI (feet)	Cancer Risk	Chronic HI
721.7848	0	0.001509159
738.189	0	0.001461787
Interpolated		
731	0	0.001509087

21393: Burlingame Auto Body

<i>At source</i>	0	0.006767531
Distance from MEI (feet)	Cancer Risk	Chronic HI
787.4016	0	0.001319668
803.8058	0	0.001279063
Interpolated		
790	0	0.001319607

22932: La Bady Collision

<i>At source</i>	0	0.006767531
Distance from MEI (feet)	Cancer Risk	Chronic HI
770.9974	0	0.001367041
787.4016	0	0.001319668
Interpolated		
784	0	0.001366969

Gasoline Dispensing Facility (GDF) Distance Multiplier Tool

G8335 (10885): Gus' Unocal Service Station

Throughput: 6.4 million gallons/year

<i>At source</i>	24.974	0.041
Distance from MEI (feet)	Cancer Risk	Chronic HI
574.147	0.897872802	0.001474044
590.5512	0.85768481	0.001408067

Interpolated			
575	0.895783071	0.001470614	
G2778 (102778): Chevron Station			
Throughput: 600,000 gallons/year			
At source	4.36	0.007	
Distance from MEI (feet)	Cancer Risk	Chronic HI	
524.9344	0.181230293	0.000290966	
541.3386	0.172438284	0.00027685	
Interpolated			
540	0.173155721	0.000278002	