Mitchell Air Quality Consulting

Appendix A

Air Quality and Greenhouse Gas Analysis Report
Broadmeadows Estates
Sutter Creek, California

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SECTION 1: AIR QUALITY ANALYSIS

1.1: Project Description

The Broadmeadows Estates project is a 10-lot single family subdivision on 2.7 acres in the City of Sutter Creek. The project site is located at the intersection of Golden Hills Drive and Broadmeadows Drive. The current zoning is Residential Low Density. The average lot size is 11,290 square feet. The site is currently vacant. Water will be supplied by the Amador County Water Agency. Electricity and natural gas will be provided by Pacific Gas and Electric Company (PG&E).

1.2: Project Analysis

The CEQA Guidelines define a significant effect on the environment as "a substantial, or potentially substantial, adverse change in the environment." To determine if a project would have a significant impact on air quality, the type, level, and impact of emissions generated by the project must be evaluated.

The following air quality significance thresholds are contained in Appendix G of the CEQA Guidelines. A significant impact would occur if the project would:

a) Conflict with or obstruct implementation of the applicable air quality plan;

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation;

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable national or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);

d) Expose sensitive receptors to substantial pollutant concentrations; or

e) Create objectionable odors affecting a substantial number of people.

Greenhouse as thresholds are based on the CEQA Guidelines checklist questions pertaining to greenhouse gas emissions, listed below:

Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

The analysis addresses criteria pollutant, toxic air contaminant, and greenhouse gas (GHG) emissions. The analysis assesses the impacts of project construction and operational criteria pollutant and GHG emission using the CalEEMod 2013 emission model.

The City of Sutter Creek and Amador County Air Pollution Control District (ACAPCD) have not adopted guidance for assessing air quality and GHG impacts and thresholds for determining the significance of these impacts. In the absence of guidance from the local or regional air pollution control agency, the Lead Agency may identify its own thresholds supported by substantial evidence. In this case the Lead Agency has utilized the quantitative thresholds adopted by the neighboring El Dorado County Air Quality Management District (EDCAQMD) and the Sacramento Metropolitan Air Quality Management District (SMAQMD).

The following air pollutants are assessed in this analysis:

- Reactive organic gases (ROG)
- Nitrogen oxides (NO_x)
- Carbon monoxide (CO)
- Sulfur dioxide (SO_2)
- Particulate matter less than 10 microns in diameter (PM_{10})
- Particulate matter less than 2.5 microns in diameter ($PM_{2.5}$)

The following GHGs defined by Assembly Bill (AB) 32 include

- Carbon dioxide (CO_2),
- Methane (CH_4),
- Nitrous oxide (N_2O),
- Hydrofluorocarbons,
- Perfluorocarbons,
- Sulfur hexafluoride.

The project does not include sources that will emit substantial quantities of hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride; therefore, no further analysis of these pollutants was required.

1.3: Impact Analysis

1.3.1 - Consistency with Air Quality Plan

Impact AIR-1: **The project would not conflict with or obstruct implementation of the applicable air quality plan.**

Impact Analysis

The EDCAQMD CEQA Guide indicates that a significant impact would occur if the project is located in a jurisdiction that does not implement the emission reduction measures contained in and/or derived from the AQAP (EDCAQMD 2002). The project will comply with the reduction measures that apply

to construction activities. Specifically, the project is required to comply with the fugitive dust controls contained in ACAPCD Rule 218—Fugitive Dust Emissions. The project would result in a less than significant increase in operational emissions; therefore, it would not conflict with measures from the air quality attainment plan (AQAP) designed to reduce operational emissions and would not result in a significant impact.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Less than significant impact.

1.3.2 - Potential for Air Quality Standard Violation

Impact AIR-2: The project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Impact Analysis

Contribution to Air Quality Violations

Regional air quality impacts and attainment of standards are the result of the cumulative impacts of all emission sources within the air basin. Individual projects are generally not large enough to contribute measurably to an existing violation of air quality standards. Therefore, the cumulative impact of the project is based on its cumulative contribution. Because of the region's nonattainment status for ozone, $PM_{2.5}$, and PM_{10}—if project-generated emissions of either of the ozone precursor pollutants (ROG and NO_X), PM_{10}, or $PM_{2.5}$ would exceed the EDCAQMD's quantitative significance thresholds—then the project would be considered to contribute to violations of the applicable standards and conflict with the attainment plans.

The potential to violate CO standards is a localized impact addressed based on the potential to expose sensitive receptors to unhealthful CO concentrations. The Mountain Counties Air Basin (MCAB), of which Amador County is apart, is classified as attainment for state and federal CO standards and CO is not monitored in the area. The primary source of CO emissions is from motor vehicles. Motor vehicle emissions have been reduced to the extent that violation of the CO air quality standards is not an issue of concern in Amador County and the entire MCAB.

Regional Emissions

Air pollutant emissions have both regional and localized effects. This part of the analysis assesses the regional effects of the project's criteria pollutant emissions in comparison to EDCAQMD thresholds of significance for short-term construction and long term operational activities.

The primary pollutants of concern during project construction are ROG, NO_X, PM_{10}, and $PM_{2.5}$. Ozone is a secondary pollutant that can be formed miles from the source of emissions, through reactions of ROG and NO_X emissions in the presence of sunlight. Therefore, ROG and NO_X are termed ozone

precursors. The monitoring stations nearest to the project site occasionally exceed the state and national ozone standards. Therefore, if the project emits a substantial quantity of ozone precursors, the project may contribute to an exceedance of the ozone standard. Amador County does not exceed state air quality standards for PM_{10}; however, the County exceeds state and federal standards for $PM_{2.5}$; therefore, substantial project emissions may contribute to an exceedance for these pollutants.

The project does not contain sources that would produce substantial quantities of SO_2 emissions during construction or operation. No further analysis of SO_2 is required.

Construction Emissions

Project construction emissions were assessed using CalEEMod 2013.2.2. As shown in Table 1, the emissions are below the significance thresholds. The results do not reflect compliance with ACAPCD fugitive dust control measures, which are standard conditions required by regulations and are not considered mitigation measures under CEQA. However, the emissions are less than significant prior to the application of mandatory fugitive dust controls. The primary source of ROG emissions during construction are from architectural coatings. The primary source of NO_x and $PM_{2.5}$ is off-road diesel construction equipment.

Table 1: Construction Air Pollutant Emissions

Year	Emissions (Maximum Daily Emissions in Pounds per Day)			
	ROG	NO_X	PM_{10}	$PM_{2.5}$
Unmitigated				
2018	56.62	24.68	8.01	4.63
Significance threshold (pounds/day)	84	84	84	84
Exceed threshold—significant impact?	No	No	No	No

Notes:
PM_{10} and $PM_{2.5}$ emissions are from the mitigated output to reflect compliance with Regulation VIII—Fugitive PM_{10} Prohibitions.
ROG = reactive organic gases NO_X = nitrogen oxides PM_{10} and $PM_{2.5}$ = particulate matter
Source: CalEEMod output (Appendix A).

Operational Emissions

Project operational emissions are the result of motor vehicle use, energy use (natural gas), and area source emission such as consumer products and landscape equipment operation. Operational emissions were modeled using CalEEMod 2013.2.2 and are presented in Table 2. The results of the analysis show that emissions are below the daily emission thresholds for each pollutant. Therefore, the project's operational emissions would be less than significant.

Table 2: Operational Air Pollutant Emissions (2018)

Source	Emissions (pounds per day)			
	ROG	NO_X	PM_{10}	$PM_{2.5}$
Area	15.87	0.22	2.65	2.65
Energy	0.01	0.08	0.01	0.01
Mobile	0.70	1.47	0.78	0.22
Total	16.58	1.77	3.44	2.88
Significance threshold	84	84	84	84
Exceed threshold—significant impact?	No	No	No	No

Notes:
ROG = reactive organic gases NO_X = nitrogen oxides PM_{10} and $PM_{2.5}$ = particulate matter
Area source emissions include emissions from natural gas, landscape, and painting.
Source: CalEEMod output (Appendix A).

The project would not exceed EDCAQMD thresholds of significance for regional criteria pollutant emissions during construction and operation. Therefore, the project's impact for this criterion are less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Less than significant impact.

1.3.3 - Cumulative Impacts

Impact AIR-3: **The project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).**

Impact Analysis

The EDCAQMD CEQA Guide states that a project would be cumulatively significant in on or more of the following conditions is met:

1. The project requires a change in the existing land use designation (i.e., general plan amendment, rezone), and projected emissions (ROG, NO_X, CO, or PM_{10}) are greater than the emissions anticipated for the site if developed under the existing land use designation;
2. The project would individually exceed any significance criteria in this Guide;

3. For impacts that are determined to be significant under this Guide, the lead agency for the project does not require the project to implement the emission reduction measures contained in and/or derived from the Air Quality Attainment Plan;
4. The project is located in a jurisdiction that does not implement the emission reduction measures contained in and/or derived from the AQAP.

Regional Impacts

This analysis examines whether the project meets any of the conditions from the EDCAQMD Guide listed above for determining significant cumulative impacts.

The project does not require a change in land use designation and would not result in a significant increase in operational emissions. As shown in Table 1, the project would not exceed any individual significance criteria. The project will comply with applicable control measures from the Air Quality Attainment Plan. The County of Amador supports the implementation of AQAP measures. Therefore, no significant cumulative regional impact would occur as a result of the project.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Less than significant impact.

1.3.4 - Sensitive Receptors

Impact AIR-4: The project would not expose sensitive receptors to substantial pollutant concentrations.

Impact Analysis

Significance Threshold

Projects that exceed the following thresholds would result in a significant impact on sensitive receptors:

- Cause or contribute to an exceedance of any California or National Ambient Air Quality Standard;
- Exceed the health risk thresholds adopted by the ACAPCD or the EDCAQMD

Sensitive Receptors

Those who are sensitive to air pollution include children, the elderly, and persons with preexisting respiratory or cardiovascular illness. Sensitive receptor are locations that house or attract children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Examples of sensitive receptors include hospitals, residences, convalescent facilities, and schools. The project would be constructed near existing residences.

Criteria Pollutant Localized Impact Analysis

Exceedances of localized criteria pollutant thresholds require the concentration of large numbers of polluting equipment close to sensitive receptors. The construction of single family residences requires the use of diesel construction equipment for site preparation, grading, and utilities. Ground up home construction requires minimal use of diesel equipment. The site has already been graded and home pads have been installed. Therefore, the remaining construction activities would not be expected to result in significant local activities that would generate criteria pollutant emissions.

Generally, projects that do not exceed the pounds per day regional thresholds for criteria pollutants also would not exceed localized impact thresholds. As shown earlier in Table 1, the project does not exceed the EDCAQMD daily thresholds of 84 pounds. The highest daily emissions are from NO_X, which result in maximum daily emissions of 49.0 pounds. The nearby San Joaquin Valley Air Pollution Control District (SJVAPCD) has adopted screening levels of 100 pounds per day for localized criteria pollutant impacts based on dispersion modeling using worst case modeling assumptions (SJVAPCD 2015). Meteorological conditions are more conducive to dispersion in the foothills, and background pollutant concentrations are lower compared with the San Joaquin Valley, which makes this comparison conservative. Table 3 shows the project's maximum daily emissions compared with SJVAPCD localized screening thresholds.

Table 3: Maximum Daily Air Pollutant Emissions During Construction

Maximum Daily Emissions	Emissions (pounds per day)			
	ROG	NO_X	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions (2018)	**5.76**	**49.02**	**5.13**	**3.50**
Screening threshold	100	100	100	100
Exceed screening threshold?	No	No	No	No

Notes:
NO_X = nitrogen oxides PM_{10} and $PM_{2.5}$ = particulate matter
N/A = Not applicable
Summer and Winter emissions were essentially the same. There is no ambient air quality standard for ROG.
Source: CalEEMod output (Appendix A).

Carbon Monoxide Hot Spots

Localized high levels of CO are associated with traffic congestion and idling or slow-moving vehicles. The project would result in a small increase in vehicles trips during construction and operational activities of future residents. The project site is rural with little or no traffic congestion. The addition of vehicle trips would not increase congestion to levels that could create a CO hotspot. It should be noted that CO concentrations have declined to the point where the entire state has attained the standard for this pollutant and it is not monitored in this area. Therefore, the project would not significantly contribute to an exceedance of state or federal CO standards.

Health Risk Impacts from Toxic Air Pollutant Emissions

The EDCAPCD Guide states that a project would result in a significant impact if exceeds the cancer and non-cancer risk thresholds listed in Table 4.

Table 4: Health Risk Significance Thresholds

Impact	Health Risk Threshold
Cancer Risk	Maximally exposed individual receptor equals or exceeds 10 in one million
Non-Cancer Hazard Index	Maximally exposed individual receptor equals or exceeds 1.0
Source: EDCAPCD 2002	

Cancer risk is estimated based on long term exposure to carcinogenic compounds over 70 years. However, OHEHHA guidelines recommend assessing large construction projects that would expose sensitive receptors to substantial amounts of DPM for a period of three months or longer (OEHHA 2015). The project is not a large construction site. Grading and site preparation required less than three months, therefore, no additional analysis is required to determine that the risk is less than significant. Residential development is an insignificant source of operational toxic emissions; therefore, operational toxic emissions are less than significant.

Valley Fever

Valley fever, or coccidioidomycosis, is an infection caused by inhalation of the spores of the fungus, *Coccidioides immitis* (*C. immitis*). The fungus is known to live in the soil in the southwestern United States and parts of Mexico and Central and South America. The spores can live for an extended time in harsh environmental conditions. Activities or conditions that increase the amount of fugitive dust contribute to greater exposure, and they include dust storms, grading, and recreational off-road activities.

Although valley fever is not common in the Sierra Nevada foothills, the valley fever spores have been found in foothill locations. The distribution of *C. immitis* is not uniform and growth sites are commonly small (a few tens of meters) and widely scattered. Known sites appear to have some ecological factors in common suggesting that certain physical, chemical, and biological conditions are more favorable for *C. immitis* growth. Avoidance, when possible, of sites favorable for the occurrence of *C. immitis* is a prudent risk management strategy.

The project site preparation and grading activities have been completed. Limited activities that will disturb the soil would occur during the ground up construction process. However, construction activities could generate fugitive dust that could contain *C. immitis* spores. The project will minimize the generation of fugitive dust during construction activities by complying with ACAPCD Rule 218. Therefore, this regulation combined with the low probability of the presence of valley fever spores would reduce valley fever impacts to less than significant.

Naturally Occurring Asbestos

According to a map of areas where naturally occurring asbestos in California are likely to occur (U.S. Geological Survey 2011), there are no such areas near the project site. Therefore, development of the project is not anticipated to expose receptors to naturally occurring asbestos. Impacts would be less than significant.

Impact Summary

The project would not exceed localized ambient air quality impact thresholds for criteria pollutants and is therefore, less than significant for this criterion. The project would not exceed cancer and non-cancer risk thresholds and is therefore, less than significant for this criterion. The project has limited potential to disturb soil that could contain Valley fever spores and regulations to control fugitive dust are expected to reduce the potential impact to less than significant levels. The project is not in an area known to have naturally occurring asbestos and would be less than significant for this criterion.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Less than significant impact.

1.3.5 - Objectionable Odors

Impact AIR-5: The project would not create objectionable odors affecting a substantial number of people.

Impact Analysis

Odor impacts on residential areas and other sensitive receptors, such as hospitals, day-care centers, schools, etc. warrant the closest scrutiny, but consideration should also be given to other land uses where people may congregate, such as recreational facilities, worksites, and commercial areas.

Project Analysis

The project is a residential used that is not considered to be a potential source of odor impacts. During construction, the various diesel-powered vehicles and equipment in use on-site would create localized odors. These odors would be temporary and would not likely be noticeable for extended periods of time beyond the project's site boundaries. The potential for diesel odor impacts would therefore be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Less than significant impact.

1.3.6 - Greenhouse Gas Inventory

Impact GHG-1: The project would generate direct and indirect greenhouse gas emissions; however, these emissions would not result in a significant impact on the environment.

Impact Analysis

Threshold of Significance

No quantitative threshold has been adopted by the ACAPCD or EDCAQMD that can be used to assess emissions for direct and indirect GHG emission impacts. However, several California air quality management districts have identified screening thresholds to identify a level of emissions that would be considered less than significant. The SMAQMD adopted a screening threshold for construction and operational GHG emissions of 1,100 $MTCO_2e$ per year (SMAQMD 2015). This amount is considered low enough that at least 90 percent of emissions from development projects would exceed the threshold and would require further analysis or mitigation to satisfy CEQA requirements. The significance determination for this project is based on whether the project GHG emissions would exceed 1,100 $MTCO_2e$.

Construction

The project would emit GHGs from upstream emission sources and direct sources (combustion of fuels from worker vehicles and construction equipment). Emissions were analyzed using CalEEMod 2013.2.2 and default construction assumptions. The project was assumed to be completed in 2018. Construction emissions result from on-site and off-site activities. On-site emissions principally consist of exhaust emissions (CO_2, CH_4, N_2O) from heavy-duty construction equipment, motor vehicle operation, and fugitive dust (mainly PM_{10}) from disturbed soil. Off-site emissions are caused by motor vehicle exhaust (CO_2, CH_4, N_2O) from construction material delivery vehicles, and worker travel. GHG emissions from project construction equipment and worker vehicles are shown in Table 5.

Table 5: Construction Greenhouse Gas Emissions

Year	$MTCO_2e$ (tons/year)
2018	257.6
Threshold	1,100
Source of Threshold: Operational Screening Threshold from SMAQMD CEQA Guide 2015; Appendix A: Modeling Results	

The project does not exceed the SMAQMD screening level thresholds for construction GHG emissions; therefore, project GHG impacts are less than significant.

Operation

The project's operational GHG emission were analyzed using CalEEMod 2013.2.2 with default modeling assumptions for comparison to the SMAQMD small project thresholds that are used to screen out projects that would not have a significant GHG impact. The SMAQMD operational threshold is 1,100 $MTCO_2e$ per year. The analysis confirms that project GHG impacts would not

exceed this threshold. Modeling assumptions and outputs from CalEEMod are provided as an attachment to this report. Results of this analysis are presented in Table 6.

Table 6: Project Operational Greenhouse Gases

Source	Emissions ($MTCO_2e$ per year)
	2018
Area	15.24
Energy	38.98
Mobile	129.22
Waste	3.30
Water	2.26
Total	189.00
Threshold	1,100
Exceeds Threshold (Yes or No)?	No
Notes: $MTCO_2e$ = metric tons of carbon dioxide equivalents Source of emissions: CalEEMod output for the year 2018 (Appendix A).	

Project operational emissions will be less than the 1,100 $MTCO_2e$ threshold; therefore, GHG impacts are less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Less than significant impact.

1.3.7 - Greenhouse Gas Reduction Plans

Impact GHG-2: **The project would not conflict with any applicable plan, policy, or regulation of an agency adopted to reduce the emissions of greenhouse gases.**

Impact Analysis

This impact analysis assesses whether the project complies with the requirements of any applicable GHG plan, policy or regulation. Projects that conflict with an applicable plan, policy, or regulation would be considered to have a significant GHG impact.

No GHG reduction plan has been adopted by Amador County. However, the recently adopted Amador County General Plan EIR includes a commitment under Mitigation Measure 4.7-1a to prepare a GHG reduction plan. The GHG Reduction Plan has not yet been prepared. However, the

General Plan EIR also includes Mitigation Measure 4.7-1b to implement interim project specific greenhouse gas reduction measures. The goal of the measure is to require discretionary projects to implement mitigation measures to help reach the 2020 emission goals of AB 32 and the significance threshold of 3.09 $MTCO_2e$ per service population per year in 2030. The measure includes assessing VMT and implementing measures to reduce VMT, assessing energy consumption and implementing measures to reduce energy use, and reducing water use (Amador County 2014).

The project results in a minimal increase in operational emissions and long term VMT production and energy consumption and would not hinder the ability of the State to reach its 2020 or 2030 goals. Project construction activities are temporary and would not be reflected in the service population target calculations. Therefore, the project would not result in a potentially significant impact that would require mitigation measures.

Scoping Plan

Pursuant to the requirements in AB 32, the ARB adopted the Climate Change Scoping Plan (Scoping Plan) in 2008, which outlines actions recommended to obtain the goal of reducing GHG emissions to 1990 levels by 2020. As described in Section 3.3.3, California has adopted numerous regulations to reduce GHG emissions from nearly all sources. The State now indicates that it is on track to achieve the AB 32 target with adopted regulations (Brown 2015). The project will comply with all Scoping Plan regulations that apply to GHG emissions from new development. Therefore, the project would not conflict with the 2008 Scoping Plan (ARB 2008).

On September 8, 2016, the Governor signed SB 32, which updates the targets contained in AB 32 to include a target of reducing emissions by 40 percent below 1990 levels by 2030. The ARB released the Draft 2017 Scoping Plan Update that includes a strategy to achieve the new 2030 target. Once the Scoping Plan strategy is adopted that identifies reduction commitments from the State, local agencies will be able to determine the amount of reductions needed by local agencies beyond regulatory compliance (ARB 2017). The project would be completed prior to 2020 and would have no significant continuing impacts after project completion that would affect the State's ability to reach the 2020 target or the new 2030 target set forth by SB 32. Motor vehicles used by project residents and electricity used by the homes will be subject to increasingly stringent regulations that will provide continued reductions needed to achieve the 2030 target.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Less than significant impact.

References

Amador County. 2014. Amador County General Plan Draft Environmental Impact Report. Website: http://www.co.amador.ca.us/home/showdocument?id=19549. Accessed October 6, 2017.

Amador County. 2015. Amador County Energy Action Plan. Website: http://www.co.amador.ca.us/home/showdocument?id=23721. Accessed October 6, 2017.

Amador County. 2016. Community-Wide and Municipal Operations Greenhouse Gas Emissions Inventory with 2005 Baseline Comparison. Website: http://www.co.amador.ca.us/home/showdocument?id=23725. Accessed October 6, 2017.

Amador County. 2016. Amador County General Plan. October. Website: http://www.co.amador.ca.us/home/showdocument?id=25588. Accessed October 6, 2017.

Brown, Edmund G. Jr. 2015. Press Release: California Establishes Most Ambitious Greenhouse Gas Goal in North America. April 29. Website: https://www.gov.ca.gov/news.php?id=18938. Accessed October 6, 2017.

CalEEMod. California Emissions Estimator Model. Version 2013.2.2 Website: http://caleemod.com/. Accessed October 6, 2017.

California Air Resources Board (ARB). 2008. (includes edits made in 2009) Climate Change Scoping Plan, a framework for change. Website: http://www.arb.ca.gov/cc/scopingplan /document/adopted_scoping_plan.pdf. Accessed October 6, 2017.

California Air Resources Board (ARB). 2017. The 2017 Climate Change Scoping Plan Update, the Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target. January 20, 2017. Website: https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf. Accessed October 6, 2017.

California Office of Environmental Health Hazards Assessment 2015. Air Toxics Hot Spots Program Risk Assessment Guidelines. Guidance Manual for Preparation of Health Risk Assessments. February. Website: http://oehha.ca.gov/media/downloads/crnr /2015guidancemanual.pdf. Accessed October 6, 2017.

El Dorado County Air Pollution Control District (EDCAPCD). 2002. Guide to Air Quality Assessment. Website: http://www.edcgov.us/Government/AirQualityManagement/Guide_to_Air_Quality_Assessment .aspx. Accessed October 6, 2017.

Sacramento Metropolitan Air Quality Management District (SMAQMD). 2015. CEQA Guidance and Tools. Website: http://www.airquality.org/businesses/ceqa-land-use-planning/ceqa-guidance-tools. Accessed October 6, 2017.

San Joaquin Valley Air Pollution Control District. 2015. Guidance for Assessing and Mitigating Air Quality Impacts. Revised March 19, 2015. Website: www.valleyair.org/transportation /GAMAQI_3-19-15.pdf. Accessed October 6, 2017.

Attachments

- Latest Broadmeadows Estates Site Plan
- Emission Summary
- CalEEMod Modeling Output

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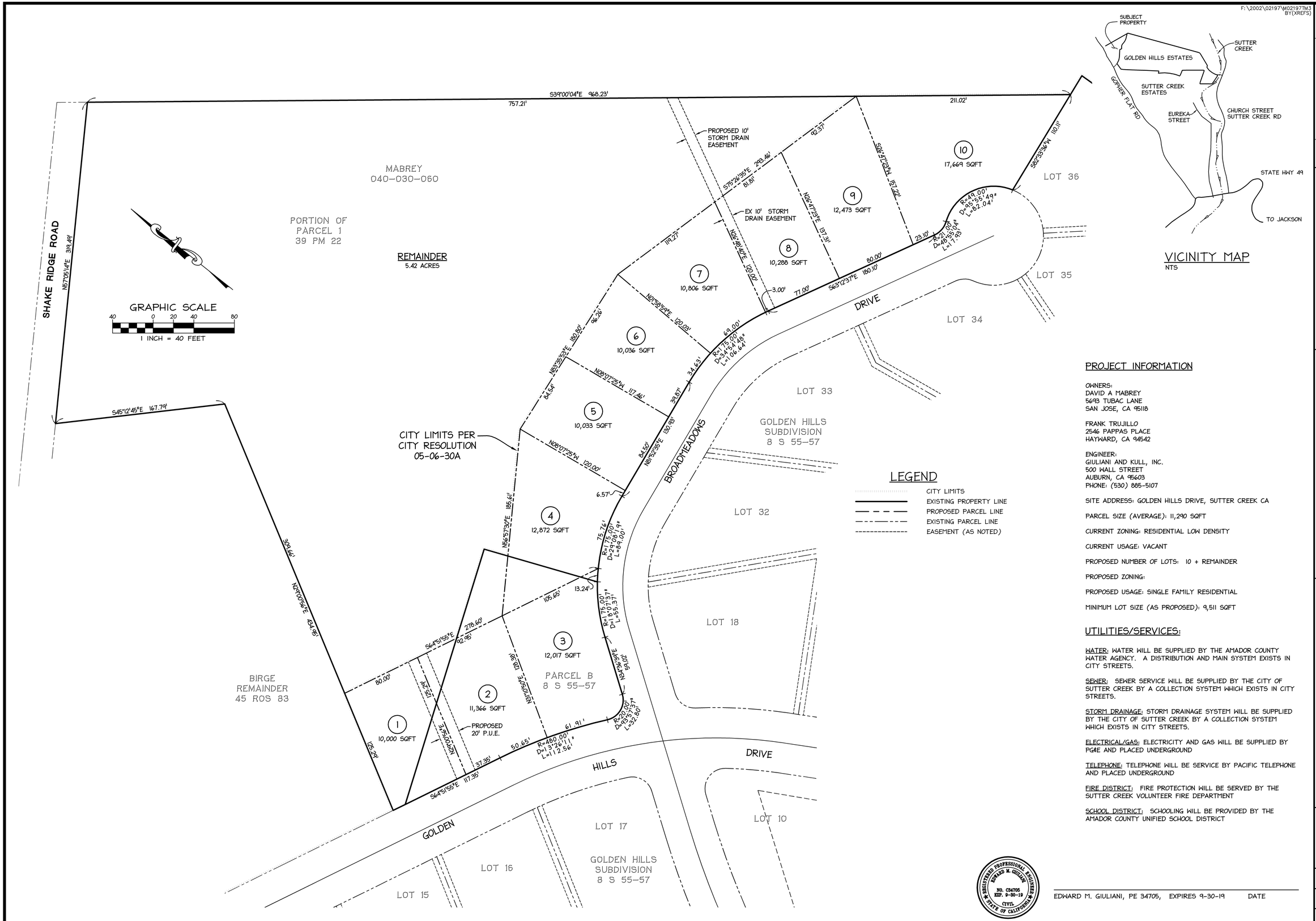

VICINITY MAP
NTS

LEGEND

- CITY LIMITS
- EXISTING PROPERTY LINE
- PROPOSED PARCEL LINE
- EXISTING PARCEL LINE
- EASEMENT (AS NOTED)

PROJECT INFORMATION

OWNERS:
DAVID A MABREY
5693 TUBAC LANE
SAN JOSE, CA 95118

FRANK TRUJILLO
2546 PAPPAS PLACE
HAYWARD, CA 94542

ENGINEER:
GIULIANI AND KULL, INC.
500 WALL STREET
AUBURN, CA 95603
PHONE: (530) 885-5107

SITE ADDRESS: GOLDEN HILLS DRIVE, SUTTER CREEK CA

PARCEL SIZE (AVERAGE): 11,290 SQFT

CURRENT ZONING: RESIDENTIAL LOW DENSITY

CURRENT USAGE: VACANT

PROPOSED NUMBER OF LOTS: 10 + REMAINDER

PROPOSED ZONING:

PROPOSED USAGE: SINGLE FAMILY RESIDENTIAL

MINIMUM LOT SIZE (AS PROPOSED): 9,511 SQFT

UTILITIES/SERVICES:

WATER: WATER WILL BE SUPPLIED BY THE AMADOR COUNTY WATER AGENCY. A DISTRIBUTION AND MAIN SYSTEM EXISTS IN CITY STREETS.

SEWER: SEWER SERVICE WILL BE SUPPLIED BY THE CITY OF SUTTER CREEK BY A COLLECTION SYSTEM WHICH EXISTS IN CITY STREETS.

STORM DRAINAGE: STORM DRAINAGE SYSTEM WILL BE SUPPLIED BY THE CITY OF SUTTER CREEK BY A COLLECTION SYSTEM WHICH EXISTS IN CITY STREETS.

ELECTRICAL/GAS: ELECTRICITY AND GAS WILL BE SUPPLIED BY PG&E AND PLACED UNDERGROUND

TELEPHONE: TELEPHONE WILL BE SERVICE BY PACIFIC TELEPHONE AND PLACED UNDERGROUND

FIRE DISTRICT: FIRE PROTECTION WILL BE SERVED BY THE SUTTER CREEK VOLUNTEER FIRE DEPARTMENT

SCHOOL DISTRICT: SCHOOLING WILL BE PROVIDED BY THE AMADOR COUNTY UNIFIED SCHOOL DISTRICT

REGISTERED PROFESSIONAL ENGINEER
EDWARD M. GIULIANI
NO. C34705
EXP. 9-30-19
CIVIL
STATE OF CALIFORNIA

EDWARD M. GIULIANI, PE 34705, EXPIRES 9-30-19 DATE

SCALE 1"=40'
DRAWN BY TG
DESIGNED BY TG
CHECKED BY EG

REVISIONS
DATE

Giuliani & Kull, Inc.
Engineers • Planners • Surveyors
500 Wall Street, Auburn, CA 95603
(530) 885-5107 Fax (530) 885-5157
Auburn • San Jose • Oakdale

BROAD MEADOWS ESTATES

BROADMEADOWS DRIVE
SUTTER CREEK, CALIFORNIA

VESTING TENTATIVE MAP

SHEET 1
OF 1 SHEETS

DATE SEP 5, 2017

JOB NO. 02197

Broadmeadows Estates Emission Summary

2018 Construction Emissions

Construction Emissions Summer Daily	**ROG**	**NOX**	**PM10**	**PM2.5**	**CO**	**SO2**
2018	56.62	24.68	8.01	4.63	18.55	0.03

Construction Emissions Winter Daily	**ROG**	**NOX**	**PM10**	**PM2.5**	**CO**	**SO2**
2018	56.62	24.70	8.01	4.63	18.44	0.03

2018 Operational Emissions

Unmitigated Operational Emissions Summer Daily	**ROG**	**NOX**	**PM10**	**PM2.5**	**CO**	**SO2**
Area	15.87	0.22	2.65	2.65	19.68	0.01
Energy	0.01	0.08	0.01	0.01	0.03	0.00
Mobile	0.70	1.47	0.78	0.22	6.59	0.01
Total	**16.58**	**1.77**	**3.44**	**2.88**	**26.31**	**0.02**

Unmitigated Operational Emissions Winter Daily	**ROG**	**NOX**	**PM10**	**PM2.5**	**CO**	**SO2**
Area	15.87	0.22	2.65	2.65	19.68	0.01
Energy	0.01	0.08	0.01	0.01	0.03	0.00
Mobile	0.66	1.64	0.78	0.22	6.52	0.01
Total	**16.54**	**1.94**	**3.44**	**2.88**	**26.24**	**0.02**

Construction GHG Emissions

Year	**CO2e**
2018	257.55
Total	**257.55**

Operational GHG Emissions

	2018
Area	15.24
Energy	38.98
Mobile	129.22
Waste	3.30
Water	2.26
Total	**189.00**
Construction	0.00
Total with Amortized Const	**189.00**

CalEEMod Modeling Results - Winter Daily

Broadmeadows Estates

Amador County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	10.00	Dwelling Unit	2.70	18,000.00	29

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	2			**Operational Year**	2018
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

Project Characteristics -

Land Use - Site Plan Acreage

Construction Phase -

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	3.25	2.70
tblProjectCharacteristics	OperationalYear	2014	2018
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	56.6192	24.6963	18.4389	0.0256	6.6801	1.3341	8.0142	3.4014	1.2274	4.6287	0.0000	2,476.4885	2,476.4885	0.7516	0.0000	2,492.2724
Total	**56.6192**	**24.6963**	**18.4389**	**0.0256**	**6.6801**	**1.3341**	**8.0142**	**3.4014**	**1.2274**	**4.6287**	**0.0000**	**2,476.4885**	**2,476.4885**	**0.7516**	**0.0000**	**2,492.2724**

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					
2018	56.6192	24.6963	18.4389	0.0256	3.0763	1.3341	4.4104	1.5492	1.2274	2.7766	0.0000	2,476.4885	2,476.4885	0.7516	0.0000	2,492.2724
Total	**56.6192**	**24.6963**	**18.4389**	**0.0256**	**3.0763**	**1.3341**	**4.4104**	**1.5492**	**1.2274**	**2.7766**	**0.0000**	**2,476.4885**	**2,476.4885**	**0.7516**	**0.0000**	**2,492.2724**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**53.95**	**0.00**	**44.97**	**54.45**	**0.00**	**40.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	15.8691	0.2173	19.6837	7.4100e-003		2.6532	2.6532		2.6532	2.6532	277.7173	117.9561	395.6734	0.2578	0.0218	407.8582
Energy	9.5000e-003	0.0812	0.0345	5.2000e-004		6.5600e-003	6.5600e-003		6.5600e-003	6.5600e-003		103.6318	103.6318	1.9900e-003	1.9000e-003	104.2625
Mobile	0.6571	1.6376	6.5185	9.8000e-003	0.7664	0.0176	0.7840	0.2054	0.0162	0.2216		811.0210	811.0210	0.0417		811.8976
Total	**16.5357**	**1.9360**	**26.2367**	**0.0177**	**0.7664**	**2.6774**	**3.4438**	**0.2054**	**2.6759**	**2.8813**	**277.7173**	**1,032.6089**	**1,310.3262**	**0.3015**	**0.0237**	**1,324.0182**

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	15.8691	0.2173	19.6837	7.4100e-003		2.6532	2.6532		2.6532	2.6532	277.7173	117.9561	395.6734	0.2578	0.0218	407.8582
Energy	9.5000e-003	0.0812	0.0345	5.2000e-004		6.5600e-003	6.5600e-003		6.5600e-003	6.5600e-003		103.6318	103.6318	1.9900e-003	1.9000e-003	104.2625
Mobile	0.6571	1.6376	6.5185	9.8000e-003	0.7664	0.0176	0.7840	0.2054	0.0162	0.2216		811.0210	811.0210	0.0417		811.8976
Total	**16.5357**	**1.9360**	**26.2367**	**0.0177**	**0.7664**	**2.6774**	**3.4438**	**0.2054**	**2.6759**	**2.8813**	**277.7173**	**1,032.6089**	**1,310.3262**	**0.3015**	**0.0237**	**1,324.0182**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2018	1/3/2018	5	3	
2	Grading	Grading	1/4/2018	1/11/2018	5	6	
3	Building Construction	Building Construction	1/12/2018	11/15/2018	5	220	
4	Paving	Paving	11/16/2018	11/29/2018	5	10	
5	Architectural Coating	Architectural Coating	11/30/2018	12/13/2018	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 0

Residential Indoor: 36,450; Residential Outdoor: 12,150; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Site Preparation	Graders	1	8.00	174	0.41
Paving	Pavers	1	8.00	125	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	174	0.41
Paving	Paving Equipment	1	8.00	130	0.36
Site Preparation	Scrapers	1	8.00	361	0.48
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	4.00	1.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

3.2 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	2.1932	24.5707	15.3552	0.0238		1.1803	1.1803		1.0859	1.0859		2,399.3596	2,399.3596	0.7470		2,415.0456
Total	**2.1932**	**24.5707**	**15.3552**	**0.0238**	**1.5908**	**1.1803**	**2.7711**	**0.1718**	**1.0859**	**1.2577**		**2,399.3596**	**2,399.3596**	**0.7470**		**2,415.0456**

3.2 Site Preparation - 2018

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	0.0424	0.0700	0.5757	1.0200e-003	0.1022	6.8000e-004	0.1029	0.0271	6.3000e-004	0.0277		77.1289	77.1289	4.6600e-003		77.2267
Total	**0.0424**	**0.0700**	**0.5757**	**1.0200e-003**	**0.1022**	**6.8000e-004**	**0.1029**	**0.0271**	**6.3000e-004**	**0.0277**		**77.1289**	**77.1289**	**4.6600e-003**		**77.2267**

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					0.7158	0.0000	0.7158	0.0773	0.0000	0.0773			0.0000			0.0000
Off-Road	2.1932	24.5707	15.3552	0.0238		1.1803	1.1803		1.0859	1.0859	0.0000	2,399.3596	2,399.3596	0.7470		2,415.0456
Total	**2.1932**	**24.5707**	**15.3552**	**0.0238**	**0.7158**	**1.1803**	**1.8962**	**0.0773**	**1.0859**	**1.1632**	**0.0000**	**2,399.3596**	**2,399.3596**	**0.7470**		**2,415.0456**

3.2 Site Preparation - 2018

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	0.0424	0.0700	0.5757	1.0200e-003	0.1022	6.8000e-004	0.1029	0.0271	6.3000e-004	0.0277		77.1289	77.1289	4.6600e-003		77.2267
Total	**0.0424**	**0.0700**	**0.5757**	**1.0200e-003**	**0.1022**	**6.8000e-004**	**0.1029**	**0.0271**	**6.3000e-004**	**0.0277**		**77.1289**	**77.1289**	**4.6600e-003**		**77.2267**

3.3 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.3737	24.6088	17.7193	0.0205		1.3333	1.3333		1.2266	1.2266		2,069.3914	2,069.3914	0.6442		2,082.9202
Total	**2.3737**	**24.6088**	**17.7193**	**0.0205**	**6.5523**	**1.3333**	**7.8856**	**3.3675**	**1.2266**	**4.5941**		**2,069.3914**	**2,069.3914**	**0.6442**		**2,082.9202**

3.3 Grading - 2018

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	0.0529	0.0875	0.7196	1.2700e-003	0.1277	8.5000e-004	0.1286	0.0339	7.8000e-004	0.0347		96.4111	96.4111	5.8200e-003		96.5334
Total	**0.0529**	**0.0875**	**0.7196**	**1.2700e-003**	**0.1277**	**8.5000e-004**	**0.1286**	**0.0339**	**7.8000e-004**	**0.0347**		**96.4111**	**96.4111**	**5.8200e-003**		**96.5334**

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					2.9486	0.0000	2.9486	1.5154	0.0000	1.5154			0.0000			0.0000
Off-Road	2.3737	24.6088	17.7193	0.0205		1.3333	1.3333		1.2266	1.2266	0.0000	2,069.3914	2,069.3914	0.6442		2,082.9202
Total	**2.3737**	**24.6088**	**17.7193**	**0.0205**	**2.9486**	**1.3333**	**4.2818**	**1.5154**	**1.2266**	**2.7420**	**0.0000**	**2,069.3914**	**2,069.3914**	**0.6442**		**2,082.9202**

3.3 Grading - 2018

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	0.0529	0.0875	0.7196	1.2700e-003	0.1277	8.5000e-004	0.1286	0.0339	7.8000e-004	0.0347		96.4111	96.4111	5.8200e-003		96.5334
Total	**0.0529**	**0.0875**	**0.7196**	**1.2700e-003**	**0.1277**	**8.5000e-004**	**0.1286**	**0.0339**	**7.8000e-004**	**0.0347**		**96.4111**	**96.4111**	**5.8200e-003**		**96.5334**

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9004	20.5600	15.6637	0.0249		1.2511	1.2511		1.1992	1.1992		2,317.2089	2,317.2089	0.4980		2,327.6664
Total	**2.9004**	**20.5600**	**15.6637**	**0.0249**		**1.2511**	**1.2511**		**1.1992**	**1.1992**		**2,317.2089**	**2,317.2089**	**0.4980**		**2,327.6664**

3.4 Building Construction - 2018

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	0.0221	0.0831	0.3661	2.1000e-004	5.9500e-003	1.0700e-003	7.0200e-003	1.6900e-003	9.9000e-004	2.6800e-003		19.7331	19.7331	1.6000e-004		19.7364
Worker	0.0212	0.0350	0.2879	5.1000e-004	0.0511	3.4000e-004	0.0514	0.0136	3.1000e-004	0.0139		38.5644	38.5644	2.3300e-003		38.6134
Total	**0.0433**	**0.1181**	**0.6540**	**7.2000e-004**	**0.0570**	**1.4100e-003**	**0.0585**	**0.0152**	**1.3000e-003**	**0.0165**		**58.2975**	**58.2975**	**2.4900e-003**		**58.3497**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9004	20.5600	15.6637	0.0249		1.2511	1.2511		1.1992	1.1992	0.0000	2,317.2089	2,317.2089	0.4980		2,327.6664
Total	**2.9004**	**20.5600**	**15.6637**	**0.0249**		**1.2511**	**1.2511**		**1.1992**	**1.1992**	**0.0000**	**2,317.2089**	**2,317.2089**	**0.4980**		**2,327.6664**

3.4 Building Construction - 2018

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	0.0221	0.0831	0.3661	2.1000e-004	5.9500e-003	1.0700e-003	7.0200e-003	1.6900e-003	9.9000e-004	2.6800e-003		19.7331	19.7331	1.6000e-004		19.7364
Worker	0.0212	0.0350	0.2879	5.1000e-004	0.0511	3.4000e-004	0.0514	0.0136	3.1000e-004	0.0139		38.5644	38.5644	2.3300e-003		38.6134
Total	**0.0433**	**0.1181**	**0.6540**	**7.2000e-004**	**0.0570**	**1.4100e-003**	**0.0585**	**0.0152**	**1.3000e-003**	**0.0165**		**58.2975**	**58.2975**	**2.4900e-003**		**58.3497**

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3885	14.0727	11.8278	0.0176		0.8417	0.8417		0.7755	0.7755		1,749.8334	1,749.8334	0.5343		1,761.0529
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3885**	**14.0727**	**11.8278**	**0.0176**		**0.8417**	**0.8417**		**0.7755**	**0.7755**		**1,749.8334**	**1,749.8334**	**0.5343**		**1,761.0529**

3.5 Paving - 2018

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	0.0794	0.1313	1.0795	1.9100e-003	0.1916	1.2800e-003	0.1929	0.0508	1.1800e-003	0.0520		144.6166	144.6166	8.7400e-003		144.8001
Total	**0.0794**	**0.1313**	**1.0795**	**1.9100e-003**	**0.1916**	**1.2800e-003**	**0.1929**	**0.0508**	**1.1800e-003**	**0.0520**		**144.6166**	**144.6166**	**8.7400e-003**		**144.8001**

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	1.3885	14.0727	11.8278	0.0176		0.8417	0.8417		0.7755	0.7755	0.0000	1,749.8334	1,749.8334	0.5343		1,761.0529
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3885**	**14.0727**	**11.8278**	**0.0176**		**0.8417**	**0.8417**		**0.7755**	**0.7755**	**0.0000**	**1,749.8334**	**1,749.8334**	**0.5343**		**1,761.0529**

3.5 Paving - 2018

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	0.0794	0.1313	1.0795	1.9100e-003	0.1916	1.2800e-003	0.1929	0.0508	1.1800e-003	0.0520		144.6166	144.6166	8.7400e-003		144.8001
Total	**0.0794**	**0.1313**	**1.0795**	**1.9100e-003**	**0.1916**	**1.2800e-003**	**0.1929**	**0.0508**	**1.1800e-003**	**0.0520**		**144.6166**	**144.6166**	**8.7400e-003**		**144.8001**

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	56.3153					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102
Total	**56.6139**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.0102**

3.6 Architectural Coating - 2018

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	5.2900e-003	8.7500e-003	0.0720	1.3000e-004	0.0128	9.0000e-005	0.0129	3.3900e-003	8.0000e-005	3.4700e-003		9.6411	9.6411	5.8000e-004		9.6533
Total	**5.2900e-003**	**8.7500e-003**	**0.0720**	**1.3000e-004**	**0.0128**	**9.0000e-005**	**0.0129**	**3.3900e-003**	**8.0000e-005**	**3.4700e-003**		**9.6411**	**9.6411**	**5.8000e-004**		**9.6533**

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	56.3153					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.0102
Total	**56.6139**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.0102**

3.6 Architectural Coating - 2018

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	5.2900e-003	8.7500e-003	0.0720	1.3000e-004	0.0128	9.0000e-005	0.0129	3.3900e-003	8.0000e-005	3.4700e-003		9.6411	9.6411	5.8000e-004		9.6533
Total	**5.2900e-003**	**8.7500e-003**	**0.0720**	**1.3000e-004**	**0.0128**	**9.0000e-005**	**0.0129**	**3.3900e-003**	**8.0000e-005**	**3.4700e-003**		**9.6411**	**9.6411**	**5.8000e-004**		**9.6533**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.6571	1.6376	6.5185	9.8000e-003	0.7664	0.0176	0.7840	0.2054	0.0162	0.2216		811.0210	811.0210	0.0417		811.8976
Unmitigated	0.6571	1.6376	6.5185	9.8000e-003	0.7664	0.0176	0.7840	0.2054	0.0162	0.2216		811.0210	811.0210	0.0417		811.8976

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	95.70	100.80	87.70	340,372	340,372
Total	95.70	100.80	87.70	340,372	340,372

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	16.80	7.10	7.90	37.30	20.70	42.00	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.381673	0.108471	0.168620	0.179219	0.094165	0.012144	0.027973	0.006035	0.001833	0.001043	0.010312	0.001497	0.007014

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	9.5000e-003	0.0812	0.0345	5.2000e-004		6.5600e-003	6.5600e-003		6.5600e-003	6.5600e-003		103.6318	103.6318	1.9900e-003	1.9000e-003	104.2625
NaturalGas Unmitigated	9.5000e-003	0.0812	0.0345	5.2000e-004		6.5600e-003	6.5600e-003		6.5600e-003	6.5600e-003		103.6318	103.6318	1.9900e-003	1.9000e-003	104.2625

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	880.87	9.5000e-003	0.0812	0.0345	5.2000e-004		6.5600e-003	6.5600e-003		6.5600e-003	6.5600e-003		103.6318	103.6318	1.9900e-003	1.9000e-003	104.2625
Total		**9.5000e-003**	**0.0812**	**0.0345**	**5.2000e-004**		**6.5600e-003**	**6.5600e-003**		**6.5600e-003**	**6.5600e-003**		**103.6318**	**103.6318**	**1.9900e-003**	**1.9000e-003**	**104.2625**

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					
Single Family Housing	0.88087	9.5000e-003	0.0812	0.0345	5.2000e-004		6.5600e-003	6.5600e-003		6.5600e-003	6.5600e-003		103.6318	103.6318	1.9900e-003	1.9000e-003	104.2625
Total		**9.5000e-003**	**0.0812**	**0.0345**	**5.2000e-004**		**6.5600e-003**	**6.5600e-003**		**6.5600e-003**	**6.5600e-003**		**103.6318**	**103.6318**	**1.9900e-003**	**1.9000e-003**	**104.2625**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	15.8691	0.2173	19.6837	7.4100e-003		2.6532	2.6532		2.6532	2.6532	277.7173	117.9561	395.6734	0.2578	0.0218	407.8582
Unmitigated	15.8691	0.2173	19.6837	7.4100e-003		2.6532	2.6532		2.6532	2.6532	277.7173	117.9561	395.6734	0.2578	0.0218	407.8582

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	0.1543					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	15.3040	0.2076	18.8528	7.3600e-003		2.6487	2.6487		2.6486	2.6486	277.7173	116.4706	394.1879	0.2563	0.0218	406.3417
Landscaping	0.0256	9.6400e-003	0.8309	4.0000e-005		4.5300e-003	4.5300e-003		4.5300e-003	4.5300e-003		1.4855	1.4855	1.4700e-003		1.5164
Total	**15.8691**	**0.2173**	**19.6837**	**7.4000e-003**		**2.6532**	**2.6532**		**2.6532**	**2.6532**	**277.7173**	**117.9561**	**395.6734**	**0.2578**	**0.0218**	**407.8582**

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	0.1543					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	15.3040	0.2076	18.8528	7.3600e-003		2.6487	2.6487		2.6486	2.6486	277.7173	116.4706	394.1879	0.2563	0.0218	406.3417
Landscaping	0.0256	9.6400e-003	0.8309	4.0000e-005		4.5300e-003	4.5300e-003		4.5300e-003	4.5300e-003		1.4855	1.4855	1.4700e-003		1.5164
Total	**15.8691**	**0.2173**	**19.6837**	**7.4000e-003**		**2.6532**	**2.6532**		**2.6532**	**2.6532**	**277.7173**	**117.9561**	**395.6734**	**0.2578**	**0.0218**	**407.8582**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

CalEEMod Modeling Results - Summer Daily

Broadmeadows Estates

Amador County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	10.00	Dwelling Unit	2.70	18,000.00	29

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	2			**Operational Year**	2018
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

Project Characteristics -

Land Use - Site Plan Acreage

Construction Phase -

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	3.25	2.70
tblProjectCharacteristics	OperationalYear	2014	2018
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	56.6200	24.6821	18.5504	0.0257	6.6801	1.3341	8.0142	3.4014	1.2274	4.6287	0.0000	2,486.7577	2,486.7577	0.7516	0.0000	2,502.5415
Total	**56.6200**	**24.6821**	**18.5504**	**0.0257**	**6.6801**	**1.3341**	**8.0142**	**3.4014**	**1.2274**	**4.6287**	**0.0000**	**2,486.7577**	**2,486.7577**	**0.7516**	**0.0000**	**2,502.5415**

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					
2018	56.6200	24.6821	18.5504	0.0257	3.0763	1.3341	4.4104	1.5492	1.2274	2.7766	0.0000	2,486.7577	2,486.7577	0.7516	0.0000	2,502.5415
Total	**56.6200**	**24.6821**	**18.5504**	**0.0257**	**3.0763**	**1.3341**	**4.4104**	**1.5492**	**1.2274**	**2.7766**	**0.0000**	**2,486.7577**	**2,486.7577**	**0.7516**	**0.0000**	**2,502.5415**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**53.95**	**0.00**	**44.97**	**54.45**	**0.00**	**40.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	15.8691	0.2173	19.6837	7.4100e-003		2.6532	2.6532		2.6532	2.6532	277.7173	117.9561	395.6734	0.2578	0.0218	407.8582
Energy	9.5000e-003	0.0812	0.0345	5.2000e-004		6.5600e-003	6.5600e-003		6.5600e-003	6.5600e-003		103.6318	103.6318	1.9900e-003	1.9000e-003	104.2625
Mobile	0.7030	1.4665	6.5932	0.0107	0.7664	0.0175	0.7839	0.2054	0.0161	0.2215		883.0239	883.0239	0.0417		883.9002
Total	**16.5816**	**1.7650**	**26.3114**	**0.0187**	**0.7664**	**2.6773**	**3.4437**	**0.2054**	**2.6758**	**2.8812**	**277.7173**	**1,104.6118**	**1,382.3292**	**0.3015**	**0.0237**	**1,396.0209**

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	15.8691	0.2173	19.6837	7.4100e-003		2.6532	2.6532		2.6532	2.6532	277.7173	117.9561	395.6734	0.2578	0.0218	407.8582
Energy	9.5000e-003	0.0812	0.0345	5.2000e-004		6.5600e-003	6.5600e-003		6.5600e-003	6.5600e-003		103.6318	103.6318	1.9900e-003	1.9000e-003	104.2625
Mobile	0.7030	1.4665	6.5932	0.0107	0.7664	0.0175	0.7839	0.2054	0.0161	0.2215		883.0239	883.0239	0.0417		883.9002
Total	**16.5816**	**1.7650**	**26.3114**	**0.0187**	**0.7664**	**2.6773**	**3.4437**	**0.2054**	**2.6758**	**2.8812**	**277.7173**	**1,104.6118**	**1,382.3292**	**0.3015**	**0.0237**	**1,396.0209**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2018	1/3/2018	5	3	
2	Grading	Grading	1/4/2018	1/11/2018	5	6	
3	Building Construction	Building Construction	1/12/2018	11/15/2018	5	220	
4	Paving	Paving	11/16/2018	11/29/2018	5	10	
5	Architectural Coating	Architectural Coating	11/30/2018	12/13/2018	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 0

Residential Indoor: 36,450; Residential Outdoor: 12,150; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Site Preparation	Graders	1	8.00	174	0.41
Paving	Pavers	1	8.00	125	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	174	0.41
Paving	Paving Equipment	1	8.00	130	0.36
Site Preparation	Scrapers	1	8.00	361	0.48
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	4.00	1.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

3.2 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	2.1932	24.5707	15.3552	0.0238		1.1803	1.1803		1.0859	1.0859		2,399.3596	2,399.3596	0.7470		2,415.0456
Total	**2.1932**	**24.5707**	**15.3552**	**0.0238**	**1.5908**	**1.1803**	**2.7711**	**0.1718**	**1.0859**	**1.2577**		**2,399.3596**	**2,399.3596**	**0.7470**		**2,415.0456**

3.2 Site Preparation - 2018

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	0.0485	0.0587	0.6649	1.1500e-003	0.1022	6.8000e-004	0.1029	0.0271	6.3000e-004	0.0277		87.3980	87.3980	4.6600e-003		87.4959
Total	**0.0485**	**0.0587**	**0.6649**	**1.1500e-003**	**0.1022**	**6.8000e-004**	**0.1029**	**0.0271**	**6.3000e-004**	**0.0277**		**87.3980**	**87.3980**	**4.6600e-003**		**87.4959**

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					0.7158	0.0000	0.7158	0.0773	0.0000	0.0773			0.0000			0.0000
Off-Road	2.1932	24.5707	15.3552	0.0238		1.1803	1.1803		1.0859	1.0859	0.0000	2,399.3596	2,399.3596	0.7470		2,415.0456
Total	**2.1932**	**24.5707**	**15.3552**	**0.0238**	**0.7158**	**1.1803**	**1.8962**	**0.0773**	**1.0859**	**1.1632**	**0.0000**	**2,399.3596**	**2,399.3596**	**0.7470**		**2,415.0456**

3.2 Site Preparation - 2018

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	0.0485	0.0587	0.6649	1.1500e-003	0.1022	6.8000e-004	0.1029	0.0271	6.3000e-004	0.0277		87.3980	87.3980	4.6600e-003		87.4959
Total	**0.0485**	**0.0587**	**0.6649**	**1.1500e-003**	**0.1022**	**6.8000e-004**	**0.1029**	**0.0271**	**6.3000e-004**	**0.0277**		**87.3980**	**87.3980**	**4.6600e-003**		**87.4959**

3.3 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.3737	24.6088	17.7193	0.0205		1.3333	1.3333		1.2266	1.2266		2,069.3914	2,069.3914	0.6442		2,082.9202
Total	**2.3737**	**24.6088**	**17.7193**	**0.0205**	**6.5523**	**1.3333**	**7.8856**	**3.3675**	**1.2266**	**4.5941**		**2,069.3914**	**2,069.3914**	**0.6442**		**2,082.9202**

3.3 Grading - 2018

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	0.0606	0.0733	0.8311	1.4400e-003	0.1277	8.5000e-004	0.1286	0.0339	7.8000e-004	0.0347		109.2476	109.2476	5.8200e-003		109.3699
Total	**0.0606**	**0.0733**	**0.8311**	**1.4400e-003**	**0.1277**	**8.5000e-004**	**0.1286**	**0.0339**	**7.8000e-004**	**0.0347**		**109.2476**	**109.2476**	**5.8200e-003**		**109.3699**

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					2.9486	0.0000	2.9486	1.5154	0.0000	1.5154			0.0000			0.0000
Off-Road	2.3737	24.6088	17.7193	0.0205		1.3333	1.3333		1.2266	1.2266	0.0000	2,069.3914	2,069.3914	0.6442		2,082.9202
Total	**2.3737**	**24.6088**	**17.7193**	**0.0205**	**2.9486**	**1.3333**	**4.2818**	**1.5154**	**1.2266**	**2.7420**	**0.0000**	**2,069.3914**	**2,069.3914**	**0.6442**		**2,082.9202**

3.3 Grading - 2018

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	0.0606	0.0733	0.8311	1.4400e-003	0.1277	8.5000e-004	0.1286	0.0339	7.8000e-004	0.0347		109.2476	109.2476	5.8200e-003		109.3699
Total	**0.0606**	**0.0733**	**0.8311**	**1.4400e-003**	**0.1277**	**8.5000e-004**	**0.1286**	**0.0339**	**7.8000e-004**	**0.0347**		**109.2476**	**109.2476**	**5.8200e-003**		**109.3699**

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9004	20.5600	15.6637	0.0249		1.2511	1.2511		1.1992	1.1992		2,317.2089	2,317.2089	0.4980		2,327.6664
Total	**2.9004**	**20.5600**	**15.6637**	**0.0249**		**1.2511**	**1.2511**		**1.1992**	**1.1992**		**2,317.2089**	**2,317.2089**	**0.4980**		**2,327.6664**

3.4 Building Construction - 2018

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	0.0164	0.0778	0.2368	2.1000e-004	5.9500e-003	1.0600e-003	7.0100e-003	1.6900e-003	9.7000e-004	2.6700e-003		19.9097	19.9097	1.5000e-004		19.9129
Worker	0.0243	0.0293	0.3324	5.8000e-004	0.0511	3.4000e-004	0.0514	0.0136	3.1000e-004	0.0139		43.6990	43.6990	2.3300e-003		43.7480
Total	**0.0406**	**0.1072**	**0.5692**	**7.9000e-004**	**0.0570**	**1.4000e-003**	**0.0584**	**0.0152**	**1.2800e-003**	**0.0165**		**63.6087**	**63.6087**	**2.4800e-003**		**63.6608**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9004	20.5600	15.6637	0.0249		1.2511	1.2511		1.1992	1.1992	0.0000	2,317.2089	2,317.2089	0.4980		2,327.6664
Total	**2.9004**	**20.5600**	**15.6637**	**0.0249**		**1.2511**	**1.2511**		**1.1992**	**1.1992**	**0.0000**	**2,317.2089**	**2,317.2089**	**0.4980**		**2,327.6664**

3.4 Building Construction - 2018

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	0.0164	0.0778	0.2368	2.1000e-004	5.9500e-003	1.0600e-003	7.0100e-003	1.6900e-003	9.7000e-004	2.6700e-003		19.9097	19.9097	1.5000e-004		19.9129
Worker	0.0243	0.0293	0.3324	5.8000e-004	0.0511	3.4000e-004	0.0514	0.0136	3.1000e-004	0.0139		43.6990	43.6990	2.3300e-003		43.7480
Total	**0.0406**	**0.1072**	**0.5692**	**7.9000e-004**	**0.0570**	**1.4000e-003**	**0.0584**	**0.0152**	**1.2800e-003**	**0.0165**		**63.6087**	**63.6087**	**2.4800e-003**		**63.6608**

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3885	14.0727	11.8278	0.0176		0.8417	0.8417		0.7755	0.7755		1,749.8334	1,749.8334	0.5343		1,761.0529
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3885**	**14.0727**	**11.8278**	**0.0176**		**0.8417**	**0.8417**		**0.7755**	**0.7755**		**1,749.8334**	**1,749.8334**	**0.5343**		**1,761.0529**

3.5 Paving - 2018

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	0.0909	0.1100	1.2466	2.1700e-003	0.1916	1.2800e-003	0.1929	0.0508	1.1800e-003	0.0520		163.8713	163.8713	8.7400e-003		164.0548
Total	**0.0909**	**0.1100**	**1.2466**	**2.1700e-003**	**0.1916**	**1.2800e-003**	**0.1929**	**0.0508**	**1.1800e-003**	**0.0520**		**163.8713**	**163.8713**	**8.7400e-003**		**164.0548**

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	1.3885	14.0727	11.8278	0.0176		0.8417	0.8417		0.7755	0.7755	0.0000	1,749.8334	1,749.8334	0.5343		1,761.0529
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3885**	**14.0727**	**11.8278**	**0.0176**		**0.8417**	**0.8417**		**0.7755**	**0.7755**	**0.0000**	**1,749.8334**	**1,749.8334**	**0.5343**		**1,761.0529**

3.5 Paving - 2018

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	0.0909	0.1100	1.2466	2.1700e-003	0.1916	1.2800e-003	0.1929	0.0508	1.1800e-003	0.0520		163.8713	163.8713	8.7400e-003		164.0548
Total	**0.0909**	**0.1100**	**1.2466**	**2.1700e-003**	**0.1916**	**1.2800e-003**	**0.1929**	**0.0508**	**1.1800e-003**	**0.0520**		**163.8713**	**163.8713**	**8.7400e-003**		**164.0548**

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	56.3153					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102
Total	**56.6139**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.0102**

3.6 Architectural Coating - 2018

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	6.0600e-003	7.3300e-003	0.0831	1.4000e-004	0.0128	9.0000e-005	0.0129	3.3900e-003	8.0000e-005	3.4700e-003		10.9248	10.9248	5.8000e-004		10.9370
Total	**6.0600e-003**	**7.3300e-003**	**0.0831**	**1.4000e-004**	**0.0128**	**9.0000e-005**	**0.0129**	**3.3900e-003**	**8.0000e-005**	**3.4700e-003**		**10.9248**	**10.9248**	**5.8000e-004**		**10.9370**

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	56.3153					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.0102
Total	**56.6139**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.0102**

3.6 Architectural Coating - 2018

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	6.0600e-003	7.3300e-003	0.0831	1.4000e-004	0.0128	9.0000e-005	0.0129	3.3900e-003	8.0000e-005	3.4700e-003		10.9248	10.9248	5.8000e-004		10.9370
Total	**6.0600e-003**	**7.3300e-003**	**0.0831**	**1.4000e-004**	**0.0128**	**9.0000e-005**	**0.0129**	**3.3900e-003**	**8.0000e-005**	**3.4700e-003**		**10.9248**	**10.9248**	**5.8000e-004**		**10.9370**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.7030	1.4665	6.5932	0.0107	0.7664	0.0175	0.7839	0.2054	0.0161	0.2215		883.0239	883.0239	0.0417		883.9002
Unmitigated	0.7030	1.4665	6.5932	0.0107	0.7664	0.0175	0.7839	0.2054	0.0161	0.2215		883.0239	883.0239	0.0417		883.9002

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	95.70	100.80	87.70	340,372	340,372
Total	95.70	100.80	87.70	340,372	340,372

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	16.80	7.10	7.90	37.30	20.70	42.00	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.381673	0.108471	0.168620	0.179219	0.094165	0.012144	0.027973	0.006035	0.001833	0.001043	0.010312	0.001497	0.007014

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	9.5000e-003	0.0812	0.0345	5.2000e-004		6.5600e-003	6.5600e-003		6.5600e-003	6.5600e-003		103.6318	103.6318	1.9900e-003	1.9000e-003	104.2625
NaturalGas Unmitigated	9.5000e-003	0.0812	0.0345	5.2000e-004		6.5600e-003	6.5600e-003		6.5600e-003	6.5600e-003		103.6318	103.6318	1.9900e-003	1.9000e-003	104.2625

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	880.87	9.5000e-003	0.0812	0.0345	5.2000e-004		6.5600e-003	6.5600e-003		6.5600e-003	6.5600e-003		103.6318	103.6318	1.9900e-003	1.9000e-003	104.2625
Total		**9.5000e-003**	**0.0812**	**0.0345**	**5.2000e-004**		**6.5600e-003**	**6.5600e-003**		**6.5600e-003**	**6.5600e-003**		**103.6318**	**103.6318**	**1.9900e-003**	**1.9000e-003**	**104.2625**

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					
Single Family Housing	0.88087	9.5000e-003	0.0812	0.0345	5.2000e-004		6.5600e-003	6.5600e-003		6.5600e-003	6.5600e-003		103.6318	103.6318	1.9900e-003	1.9000e-003	104.2625
Total		**9.5000e-003**	**0.0812**	**0.0345**	**5.2000e-004**		**6.5600e-003**	**6.5600e-003**		**6.5600e-003**	**6.5600e-003**		**103.6318**	**103.6318**	**1.9900e-003**	**1.9000e-003**	**104.2625**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	15.8691	0.2173	19.6837	7.4100e-003		2.6532	2.6532		2.6532	2.6532	277.7173	117.9561	395.6734	0.2578	0.0218	407.8582
Unmitigated	15.8691	0.2173	19.6837	7.4100e-003		2.6532	2.6532		2.6532	2.6532	277.7173	117.9561	395.6734	0.2578	0.0218	407.8582

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	0.1543					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	15.3040	0.2076	18.8528	7.3600e-003		2.6487	2.6487		2.6486	2.6486	277.7173	116.4706	394.1879	0.2563	0.0218	406.3417
Landscaping	0.0256	9.6400e-003	0.8309	4.0000e-005		4.5300e-003	4.5300e-003		4.5300e-003	4.5300e-003		1.4855	1.4855	1.4700e-003		1.5164
Total	**15.8691**	**0.2173**	**19.6837**	**7.4000e-003**		**2.6532**	**2.6532**		**2.6532**	**2.6532**	**277.7173**	**117.9561**	**395.6734**	**0.2578**	**0.0218**	**407.8582**

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	0.1543					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	15.3040	0.2076	18.8528	7.3600e-003		2.6487	2.6487		2.6486	2.6486	277.7173	116.4706	394.1879	0.2563	0.0218	406.3417
Landscaping	0.0256	9.6400e-003	0.8309	4.0000e-005		4.5300e-003	4.5300e-003		4.5300e-003	4.5300e-003		1.4855	1.4855	1.4700e-003		1.5164
Total	**15.8691**	**0.2173**	**19.6837**	**7.4000e-003**		**2.6532**	**2.6532**		**2.6532**	**2.6532**	**277.7173**	**117.9561**	**395.6734**	**0.2578**	**0.0218**	**407.8582**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

CalEEMod Modeling Results - Annual

Broadmeadows Estates

Amador County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	10.00	Dwelling Unit	2.70	18,000.00	29

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	2			**Operational Year**	2018
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

Project Characteristics -

Land Use - Site Plan Acreage

Construction Phase -

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	3.25	2.70
tblProjectCharacteristics	OperationalYear	2014	2018
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.6244	2.4663	1.9418	3.0300e-003	0.0296	0.1485	0.1781	0.0124	0.1420	0.1544	0.0000	256.3933	256.3933	0.0553	0.0000	257.5551
Total	**0.6244**	**2.4663**	**1.9418**	**3.0300e-003**	**0.0296**	**0.1485**	**0.1781**	**0.0124**	**0.1420**	**0.1544**	**0.0000**	**256.3933**	**256.3933**	**0.0553**	**0.0000**	**257.5551**

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					
2018	0.6244	2.4663	1.9418	3.0300e-003	0.0175	0.1485	0.1660	6.6800e-003	0.1420	0.1487	0.0000	256.3930	256.3930	0.0553	0.0000	257.5548
Total	**0.6244**	**2.4663**	**1.9418**	**3.0300e-003**	**0.0175**	**0.1485**	**0.1660**	**6.6800e-003**	**0.1420**	**0.1487**	**0.0000**	**256.3930**	**256.3930**	**0.0553**	**0.0000**	**257.5548**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**40.99**	**0.00**	**6.81**	**46.04**	**0.00**	**3.69**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.7282	9.3800e-003	0.8477	3.1000e-004		0.1090	0.1090		0.1090	0.1090	10.3296	4.4534	14.7829	9.6500e-003	8.1000e-004	15.2375
Energy	1.7300e-003	0.0148	6.3000e-003	9.0000e-005		1.2000e-003	1.2000e-003		1.2000e-003	1.2000e-003	0.0000	38.7934	38.7934	1.3100e-003	5.2000e-004	38.9811
Mobile	0.1079	0.2721	1.0782	1.7200e-003	0.1270	3.0100e-003	0.1300	0.0342	2.7700e-003	0.0369	0.0000	129.0875	129.0875	6.5100e-003	0.0000	129.2241
Waste						0.0000	0.0000		0.0000	0.0000	1.4717	0.0000	1.4717	0.0870	0.0000	3.2981
Water						0.0000	0.0000		0.0000	0.0000	0.2067	1.4438	1.6505	0.0213	5.1000e-004	2.2573
Total	**0.8379**	**0.2963**	**1.9322**	**2.1200e-003**	**0.1270**	**0.1132**	**0.2402**	**0.0342**	**0.1130**	**0.1471**	**12.0080**	**173.7780**	**185.7860**	**0.1257**	**1.8400e-003**	**188.9982**

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	0.7282	9.3800e-003	0.8477	3.1000e-004		0.1090	0.1090		0.1090	0.1090	10.3296	4.4534	14.7829	9.6500e-003	8.1000e-004	15.2375
Energy	1.7300e-003	0.0148	6.3000e-003	9.0000e-005		1.2000e-003	1.2000e-003		1.2000e-003	1.2000e-003	0.0000	38.7934	38.7934	1.3100e-003	5.2000e-004	38.9811
Mobile	0.1079	0.2721	1.0782	1.7200e-003	0.1270	3.0100e-003	0.1300	0.0342	2.7700e-003	0.0369	0.0000	129.0875	129.0875	6.5100e-003	0.0000	129.2241
Waste						0.0000	0.0000		0.0000	0.0000	1.4717	0.0000	1.4717	0.0870	0.0000	3.2981
Water						0.0000	0.0000		0.0000	0.0000	0.2067	1.4438	1.6505	0.0213	5.1000e-004	2.2570
Total	**0.8379**	**0.2963**	**1.9322**	**2.1200e-003**	**0.1270**	**0.1132**	**0.2402**	**0.0342**	**0.1130**	**0.1471**	**12.0080**	**173.7780**	**185.7860**	**0.1257**	**1.8400e-003**	**188.9978**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2018	1/3/2018	5	3	
2	Grading	Grading	1/4/2018	1/11/2018	5	6	
3	Building Construction	Building Construction	1/12/2018	11/15/2018	5	220	
4	Paving	Paving	11/16/2018	11/29/2018	5	10	
5	Architectural Coating	Architectural Coating	11/30/2018	12/13/2018	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 0

Residential Indoor: 36,450; Residential Outdoor: 12,150; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Site Preparation	Graders	1	8.00	174	0.41
Paving	Pavers	1	8.00	125	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	174	0.41
Paving	Paving Equipment	1	8.00	130	0.36
Site Preparation	Scrapers	1	8.00	361	0.48
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	4.00	1.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

3.2 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2900e-003	0.0369	0.0230	4.0000e-005		1.7700e-003	1.7700e-003		1.6300e-003	1.6300e-003	0.0000	3.2650	3.2650	1.0200e-003	0.0000	3.2863
Total	**3.2900e-003**	**0.0369**	**0.0230**	**4.0000e-005**	**2.3900e-003**	**1.7700e-003**	**4.1600e-003**	**2.6000e-004**	**1.6300e-003**	**1.8900e-003**	**0.0000**	**3.2650**	**3.2650**	**1.0200e-003**	**0.0000**	**3.2863**

3.2 Site Preparation - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	1.0000e-004	8.7000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1082	0.1082	1.0000e-005	0.0000	0.1084
Total	**6.0000e-005**	**1.0000e-004**	**8.7000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1082**	**0.1082**	**1.0000e-005**	**0.0000**	**0.1084**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0700e-003	0.0000	1.0700e-003	1.2000e-004	0.0000	1.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2900e-003	0.0369	0.0230	4.0000e-005		1.7700e-003	1.7700e-003		1.6300e-003	1.6300e-003	0.0000	3.2650	3.2650	1.0200e-003	0.0000	3.2863
Total	**3.2900e-003**	**0.0369**	**0.0230**	**4.0000e-005**	**1.0700e-003**	**1.7700e-003**	**2.8400e-003**	**1.2000e-004**	**1.6300e-003**	**1.7500e-003**	**0.0000**	**3.2650**	**3.2650**	**1.0200e-003**	**0.0000**	**3.2863**

3.2 Site Preparation - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	1.0000e-004	8.7000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1082	0.1082	1.0000e-005	0.0000	0.1084
Total	**6.0000e-005**	**1.0000e-004**	**8.7000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1082**	**0.1082**	**1.0000e-005**	**0.0000**	**0.1084**

3.3 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0197	0.0000	0.0197	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1200e-003	0.0738	0.0532	6.0000e-005		4.0000e-003	4.0000e-003		3.6800e-003	3.6800e-003	0.0000	5.6320	5.6320	1.7500e-003	0.0000	5.6688
Total	**7.1200e-003**	**0.0738**	**0.0532**	**6.0000e-005**	**0.0197**	**4.0000e-003**	**0.0237**	**0.0101**	**3.6800e-003**	**0.0138**	**0.0000**	**5.6320**	**5.6320**	**1.7500e-003**	**0.0000**	**5.6688**

3.3 Grading - 2018

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	1.5000e-004	2.5000e-004	2.1700e-003	0.0000	3.7000e-004	0.0000	3.7000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.2706	0.2706	2.0000e-005	0.0000	0.2709
Total	**1.5000e-004**	**2.5000e-004**	**2.1700e-003**	**0.0000**	**3.7000e-004**	**0.0000**	**3.7000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.2706**	**0.2706**	**2.0000e-005**	**0.0000**	**0.2709**

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					8.8500e-003	0.0000	8.8500e-003	4.5500e-003	0.0000	4.5500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1200e-003	0.0738	0.0532	6.0000e-005		4.0000e-003	4.0000e-003		3.6800e-003	3.6800e-003	0.0000	5.6320	5.6320	1.7500e-003	0.0000	5.6688
Total	**7.1200e-003**	**0.0738**	**0.0532**	**6.0000e-005**	**8.8500e-003**	**4.0000e-003**	**0.0129**	**4.5500e-003**	**3.6800e-003**	**8.2300e-003**	**0.0000**	**5.6320**	**5.6320**	**1.7500e-003**	**0.0000**	**5.6688**

3.3 Grading - 2018

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	1.5000e-004	2.5000e-004	2.1700e-003	0.0000	3.7000e-004	0.0000	3.7000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.2706	0.2706	2.0000e-005	0.0000	0.2709
Total	**1.5000e-004**	**2.5000e-004**	**2.1700e-003**	**0.0000**	**3.7000e-004**	**0.0000**	**3.7000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.2706**	**0.2706**	**2.0000e-005**	**0.0000**	**0.2709**

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3190	2.2616	1.7230	2.7400e-003		0.1376	0.1376		0.1319	0.1319	0.0000	231.2350	231.2350	0.0497	0.0000	232.2786
Total	**0.3190**	**2.2616**	**1.7230**	**2.7400e-003**		**0.1376**	**0.1376**		**0.1319**	**0.1319**	**0.0000**	**231.2350**	**231.2350**	**0.0497**	**0.0000**	**232.2786**

3.4 Building Construction - 2018

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	2.1000e-003	9.0300e-003	0.0336	2.0000e-005	6.3000e-004	1.2000e-004	7.5000e-004	1.8000e-004	1.1000e-004	2.9000e-004	0.0000	1.9794	1.9794	2.0000e-005	0.0000	1.9797
Worker	2.2400e-003	3.5900e-003	0.0318	6.0000e-005	5.4100e-003	4.0000e-005	5.4500e-003	1.4400e-003	3.0000e-005	1.4700e-003	0.0000	3.9680	3.9680	2.3000e-004	0.0000	3.9729
Total	**4.3400e-003**	**0.0126**	**0.0654**	**8.0000e-005**	**6.0400e-003**	**1.6000e-004**	**6.2000e-003**	**1.6200e-003**	**1.4000e-004**	**1.7600e-003**	**0.0000**	**5.9474**	**5.9474**	**2.5000e-004**	**0.0000**	**5.9526**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3190	2.2616	1.7230	2.7400e-003		0.1376	0.1376		0.1319	0.1319	0.0000	231.2347	231.2347	0.0497	0.0000	232.2783
Total	**0.3190**	**2.2616**	**1.7230**	**2.7400e-003**		**0.1376**	**0.1376**		**0.1319**	**0.1319**	**0.0000**	**231.2347**	**231.2347**	**0.0497**	**0.0000**	**232.2783**

3.4 Building Construction - 2018

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	2.1000e-003	9.0300e-003	0.0336	2.0000e-005	6.3000e-004	1.2000e-004	7.5000e-004	1.8000e-004	1.1000e-004	2.9000e-004	0.0000	1.9794	1.9794	2.0000e-005	0.0000	1.9797
Worker	2.2400e-003	3.5900e-003	0.0318	6.0000e-005	5.4100e-003	4.0000e-005	5.4500e-003	1.4400e-003	3.0000e-005	1.4700e-003	0.0000	3.9680	3.9680	2.3000e-004	0.0000	3.9729
Total	**4.3400e-003**	**0.0126**	**0.0654**	**8.0000e-005**	**6.0400e-003**	**1.6000e-004**	**6.2000e-003**	**1.6200e-003**	**1.4000e-004**	**1.7600e-003**	**0.0000**	**5.9474**	**5.9474**	**2.5000e-004**	**0.0000**	**5.9526**

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.9400e-003	0.0704	0.0591	9.0000e-005		4.2100e-003	4.2100e-003		3.8800e-003	3.8800e-003	0.0000	7.9371	7.9371	2.4200e-003	0.0000	7.9880
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.9400e-003**	**0.0704**	**0.0591**	**9.0000e-005**		**4.2100e-003**	**4.2100e-003**		**3.8800e-003**	**3.8800e-003**	**0.0000**	**7.9371**	**7.9371**	**2.4200e-003**	**0.0000**	**7.9880**

3.5 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	6.1000e-004	5.4200e-003	1.0000e-005	9.2000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004	0.0000	0.6764	0.6764	4.0000e-005	0.0000	0.6772
Total	**3.8000e-004**	**6.1000e-004**	**5.4200e-003**	**1.0000e-005**	**9.2000e-004**	**1.0000e-005**	**9.3000e-004**	**2.5000e-004**	**1.0000e-005**	**2.5000e-004**	**0.0000**	**0.6764**	**0.6764**	**4.0000e-005**	**0.0000**	**0.6772**

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	6.9400e-003	0.0704	0.0591	9.0000e-005		4.2100e-003	4.2100e-003		3.8800e-003	3.8800e-003	0.0000	7.9371	7.9371	2.4200e-003	0.0000	7.9880
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.9400e-003**	**0.0704**	**0.0591**	**9.0000e-005**		**4.2100e-003**	**4.2100e-003**		**3.8800e-003**	**3.8800e-003**	**0.0000**	**7.9371**	**7.9371**	**2.4200e-003**	**0.0000**	**7.9880**

3.5 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	6.1000e-004	5.4200e-003	1.0000e-005	9.2000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004	0.0000	0.6764	0.6764	4.0000e-005	0.0000	0.6772
Total	**3.8000e-004**	**6.1000e-004**	**5.4200e-003**	**1.0000e-005**	**9.2000e-004**	**1.0000e-005**	**9.3000e-004**	**2.5000e-004**	**1.0000e-005**	**2.5000e-004**	**0.0000**	**0.6764**	**0.6764**	**4.0000e-005**	**0.0000**	**0.6772**

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2816					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4900e-003	0.0100	9.2700e-003	1.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	1.2766	1.2766	1.2000e-004	0.0000	1.2792
Total	**0.2831**	**0.0100**	**9.2700e-003**	**1.0000e-005**		**7.5000e-004**	**7.5000e-004**		**7.5000e-004**	**7.5000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.2000e-004**	**0.0000**	**1.2792**

3.6 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	4.0000e-005	3.6000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0451	0.0451	0.0000	0.0000	0.0452
Total	**3.0000e-005**	**4.0000e-005**	**3.6000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0451**	**0.0451**	**0.0000**	**0.0000**	**0.0452**

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	0.2816					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4900e-003	0.0100	9.2700e-003	1.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	1.2766	1.2766	1.2000e-004	0.0000	1.2792
Total	**0.2831**	**0.0100**	**9.2700e-003**	**1.0000e-005**		**7.5000e-004**	**7.5000e-004**		**7.5000e-004**	**7.5000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.2000e-004**	**0.0000**	**1.2792**

3.6 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	4.0000e-005	3.6000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0451	0.0451	0.0000	0.0000	0.0452
Total	**3.0000e-005**	**4.0000e-005**	**3.6000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0451**	**0.0451**	**0.0000**	**0.0000**	**0.0452**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1079	0.2721	1.0782	1.7200e-003	0.1270	3.0100e-003	0.1300	0.0342	2.7700e-003	0.0369	0.0000	129.0875	129.0875	6.5100e-003	0.0000	129.2241
Unmitigated	0.1079	0.2721	1.0782	1.7200e-003	0.1270	3.0100e-003	0.1300	0.0342	2.7700e-003	0.0369	0.0000	129.0875	129.0875	6.5100e-003	0.0000	129.2241

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	95.70	100.80	87.70	340,372	340,372
Total	95.70	100.80	87.70	340,372	340,372

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	16.80	7.10	7.90	37.30	20.70	42.00	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.381673	0.108471	0.168620	0.179219	0.094165	0.012144	0.027973	0.006035	0.001833	0.001043	0.010312	0.001497	0.007014

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	21.6360	21.6360	9.8000e-004	2.0000e-004	21.7193
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	21.6360	21.6360	9.8000e-004	2.0000e-004	21.7193
NaturalGas Mitigated	1.7300e-003	0.0148	6.3000e-003	9.0000e-005		1.2000e-003	1.2000e-003		1.2000e-003	1.2000e-003	0.0000	17.1574	17.1574	3.3000e-004	3.1000e-004	17.2618
NaturalGas Unmitigated	1.7300e-003	0.0148	6.3000e-003	9.0000e-005		1.2000e-003	1.2000e-003		1.2000e-003	1.2000e-003	0.0000	17.1574	17.1574	3.3000e-004	3.1000e-004	17.2618

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	321518	1.7300e-003	0.0148	6.3000e-003	9.0000e-005		1.2000e-003	1.2000e-003		1.2000e-003	1.2000e-003	0.0000	17.1574	17.1574	3.3000e-004	3.1000e-004	17.2618
Total		**1.7300e-003**	**0.0148**	**6.3000e-003**	**9.0000e-005**		**1.2000e-003**	**1.2000e-003**		**1.2000e-003**	**1.2000e-003**	**0.0000**	**17.1574**	**17.1574**	**3.3000e-004**	**3.1000e-004**	**17.2618**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	321518	1.7300e-003	0.0148	6.3000e-003	9.0000e-005		1.2000e-003	1.2000e-003		1.2000e-003	1.2000e-003	0.0000	17.1574	17.1574	3.3000e-004	3.1000e-004	17.2618
Total		**1.7300e-003**	**0.0148**	**6.3000e-003**	**9.0000e-005**		**1.2000e-003**	**1.2000e-003**		**1.2000e-003**	**1.2000e-003**	**0.0000**	**17.1574**	**17.1574**	**3.3000e-004**	**3.1000e-004**	**17.2618**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	74373	21.6360	9.8000e-004	2.0000e-004	21.7193
Total		**21.6360**	**9.8000e-004**	**2.0000e-004**	**21.7193**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	74373	21.6360	9.8000e-004	2.0000e-004	21.7193
Total		**21.6360**	**9.8000e-004**	**2.0000e-004**	**21.7193**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.7282	9.3800e-003	0.8477	3.1000e-004		0.1090	0.1090		0.1090	0.1090	10.3296	4.4534	14.7829	9.6500e-003	8.1000e-004	15.2375
Unmitigated	0.7282	9.3800e-003	0.8477	3.1000e-004		0.1090	0.1090		0.1090	0.1090	10.3296	4.4534	14.7829	9.6500e-003	8.1000e-004	15.2375

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	0.0282					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0703					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.6275	8.5100e-003	0.7730	3.0000e-004		0.1086	0.1086		0.1086	0.1086	10.3296	4.3321	14.6617	9.5300e-003	8.1000e-004	15.1137
Landscaping	2.3100e-003	8.7000e-004	0.0748	0.0000		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	0.1213	0.1213	1.2000e-004	0.0000	0.1238
Total	**0.7282**	**9.3800e-003**	**0.8478**	**3.0000e-004**		**0.1090**	**0.1090**		**0.1090**	**0.1090**	**10.3296**	**4.4534**	**14.7829**	**9.6500e-003**	**8.1000e-004**	**15.2375**

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	0.0282					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0703					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.6275	8.5100e-003	0.7730	3.0000e-004		0.1086	0.1086		0.1086	0.1086	10.3296	4.3321	14.6617	9.5300e-003	8.1000e-004	15.1137
Landscaping	2.3100e-003	8.7000e-004	0.0748	0.0000		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	0.1213	0.1213	1.2000e-004	0.0000	0.1238
Total	**0.7282**	**9.3800e-003**	**0.8478**	**3.0000e-004**		**0.1090**	**0.1090**		**0.1090**	**0.1090**	**10.3296**	**4.4534**	**14.7829**	**9.6500e-003**	**8.1000e-004**	**15.2375**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.6505	0.0213	5.1000e-004	2.2570
Unmitigated	1.6505	0.0213	5.1000e-004	2.2573

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.65154 / 0.410754	1.6505	0.0213	5.1000e-004	2.2573
Total		**1.6505**	**0.0213**	**5.1000e-004**	**2.2573**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.65154 / 0.410754	1.6505	0.0213	5.1000e-004	2.2570
Total		**1.6505**	**0.0213**	**5.1000e-004**	**2.2570**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.4717	0.0870	0.0000	3.2981
Unmitigated	1.4717	0.0870	0.0000	3.2981

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	7.25	1.4717	0.0870	0.0000	3.2981
Total		**1.4717**	**0.0870**	**0.0000**	**3.2981**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	7.25	1.4717	0.0870	0.0000	3.2981
Total		**1.4717**	**0.0870**	**0.0000**	**3.2981**

9.0 Operational Offroad

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

10.0 Vegetation