APPENDIX A
AIR QUALITY/GREENHOUSE GAS EMISSIONS TECHNICAL MEMORANDUM

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September 2020

Michael Baker International, Inc.
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Subject: Casa De Oro Branch Library – Emissions Memorandum

PROJECT DESCRIPTION

The Casa de Oro Branch Library Project (proposed project) would result in replacement of the existing County of San Diego (County) Casa de Oro branch library facility in the community of Spring Valley with a new branch library facility at a different location. The proposed project consists of an approximately 13,000 square-foot (SF) library facility that aims to achieve "zero net energy," with access off Campo Road, 52 parking spaces, landscaping, and fencing. The existing library is currently located at 9805 Campo Road within an existing retail commercial shopping center, just to the southeast of the proposed project site. The proposed project is intended to enhance the County's regional library system and provide expanded services to its patrons within the Spring Valley community and surrounding areas. The proposed project would be processed through the County's Department of General Services (DGS).

PROJECT LOCATION

The proposed project site is located in the community of Spring Valley in southeastern unincorporated San Diego County, California. The site is within the Valle de Oro Community Plan Area. The affected County Assessor Parcel Numbers (APNs) include portions of APNs 500-170-10, -11, and -41.

Regional access to the project vicinity is provided via State Route (SR) 94 located approximately 480 feet to the south/southwest of the site at its closest point; refer to Figure 1. Direct access to the project site would be provided from Campo Road, between Conrad Drive and Rodgers Road.

PROJECT SETTING AND EXISTING CONDITIONS

The proposed project site is located in a highly urbanized area, adjacent to the commercial corridor of Campo Road. The area surrounding the project site is highly developed with a variety of land uses including commercial, general office, and multi-family and (limited) single-family residential uses.

The land where the library would be constructed is currently disturbed and/or developed. The majority of the property is surfaced with asphaltic pavement. Limited vegetation is present on-site and consists of turf grass associated with the sports fields and slope along the western boundary, as well as along the existing drainage in the southwestern portion of the property.

The site is relatively flat, gently sloping from north to south. On-site elevations range from approximately 422 feet above mean sea level (amsl) in the southern portion of the site near Campo Road to approximately 443 feet amsl in the northwestern portion of the site.

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Location: N:\2020\2020-137.01 Casa de Oro Library\MAPS\location_vicinity\CDO_Location.mxd (TR)-trotellini 9/16/2020

Map Date: 9/16/2020

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ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Figure 1. Project Location and Vicinity

2020-137.01 Casa de Oro Library

PROJECT CHARACTERISTICS

The library building would total approximately 13,000 SF in size and would house a number of rooms in order to accommodate internal library operations, as well as to provide a variety of services to the public. The proposed library would consist of the components identified in Table 1.

Table 1. Project Components

Proposed Use	
Entry plaza	Entry lobby
Restroom facilities (including staff-only)	Circulation desk
Public multi-media room (computers/copy machines)	Manager's office/work room/ sorter/storage/break room/staff restroom
Adult (study rooms/seating/book stacks)	Great room (reading area and magazine stacks)
Children (story-time area/discovery zone/book stacks/reading room/study area/crafts and children's restrooms)	Teens (study rooms/seating/book stacks)
Community room	Conference room
Audio/visual storage	Marketplace (popular books/ holds and self-checkouts)
Homework center	Friends of Library bookstore
Outdoor patio	

Project implementation would require acquisition of Real Property from an adjoining private party to the south. The County would lease the affected property from the La Mesa Spring Valley School District; no lands would be purchased from the school.

Access

Direct access to the project site would be from Campo Drive. It is anticipated that a minimum 24-foot wide access drive would be constructed from the street up to the surface parking area proposed with the project. Construction of this access drive would require a new curb cut within the right-of-way on Campo Road and installation of a commercial driveway.

PROJECT CONSTRUCTION

Schedule

It is anticipated that project construction would occur over a period of approximately 12 to 14 months from the onset of demolition through final construction.

Demolition

An existing modular building located on the La Mesa Spring Valley School District property would be removed to accommodate the parking lot for the library. Additionally, an existing restaurant fronting onto

Campo Road would be demolished to allow for site access. The existing asphaltic surface in the southern portion of the site would also be broken up and removed. Removal of a portion of the existing sports fields abutting the site to the north would also occur with project grading.

Grading and Site Preparation

The site would anticipate minor grading, 4,000 cubic yards (import), to accommodate the proposed library pad, surface parking area, and driveway. This includes preparation of and/or back filling of the site's retaining walls and driveway ramping (American Disability Act compliant), plus removal and recompaction (12-inch) for the foundation and parking areas. Existing on-site vegetation (i.e., on the sports fields) would be removed. Grading would be accomplished with scrapers, motor graders, water trucks, dozers, and compaction equipment.

PROJECT OPERATIONS

Hours of Operation and Staffing

It is anticipated that the library would be staffed by a maximum of 6 to 8 part- and/or full-time employees on a daily basis. Consistent with current operating hours for other libraries within the County's system, it is anticipated that the Casa de Oro library would operate during the following hours:

Monday and Wednesday: 9:30 a.m. to 6:00 p.m.
Tuesday and Thursday: 9:30 a.m. to 8:00 p.m.
Friday and Saturday: 9:30 a.m. to 5:00 p.m.
Sunday: Closed

AIR QUALITY ANALYSIS

Environmental Setting

San Diego Air Basin

The project site is located in the Community of Spring Valley in San Diego County. This region is identified as the San Diego Air Basin (SDAB). The topography in the SDAB varies greatly, from beaches on the west to mountains and desert on the east. Much of the topography in between consists of mesa tops intersected by canyon areas. The region's topography influences air flow and the dispersal and movement of pollutants in the basin. The mountains to the east prevent air flow mixing and prohibit dispersal of pollutants in that direction.

Regional climate and local meteorological conditions influence ambient air quality. The climate of the SDAB is dominated by a semi-permanent high-pressure cell located over the Pacific Ocean. This cell, called the Pacific High-Pressure Cell (or Zone) influences the direction of prevailing winds (westerly to northwesterly) and maintains clear skies for much of the year. The high-pressure cell also creates two types of temperature inversions that may act to degrade local air quality. Subsidence inversions occur during the warmer months as descending air associated with the Pacific High-Pressure Cell comes into contact with cool marine air. The boundary between the two layers of air creates a temperature inversion

that traps pollutants. The other type of inversion, a radiation inversion, develops on winter nights when air near the ground cools through radiation and the air aloft remains warm. The shallow inversion layer formed between these two air masses can also trap pollutants. In addition, ambient air quality in the SDAB is affected by air quality in the South Coast Air Basin (the metropolitan areas of Los Angeles, Orange, San Bernardino, and Riverside counties). Air pollutants, specifically the components of smog, are transported to San Diego County during relatively mild Santa Ana weather conditions. Winds blowing toward the southwest transport the polluted air from the South Coast Air Basin over the ocean. The sea breeze brings this air onshore into San Diego County. When the transported smog is at ground level, the highest ozone (O_3) concentrations are measured at coastal and near-coastal monitoring sites. However, when the blown-in smog cloud is elevated, coastal sites may be passed over, and the transported O_3 is measured farther inland.

San Diego County Air Pollution Control District

The San Diego Air Pollution Control District (SDAPCD) is the local agency responsible for the administration and enforcement of air quality regulations in San Diego County. The Air District regulates most air pollutant sources, except for motor vehicles, marine vessels, aircraft, and agricultural equipment, which are regulated by the California Air Resources Board (CARB) or the U.S. Environmental Protection Agency (USEPA). State and local government projects, as well as projects proposed by the private sector, are subject to SDAPCD requirements if the sources are regulated by the District. Additionally, the SDAPCD, along with CARB, maintains and operates ambient air quality monitoring stations at numerous locations throughout San Diego County. These stations are used to measure and monitor criteria and toxic air pollutant levels in the ambient air.

Criteria Air Pollutants

Both the USEPA and the CARB have established ambient air quality standards for common pollutants. These ambient air quality standards are levels of contaminants representing safe levels that avoid specific adverse health effects associated with each pollutant. The ambient air quality standards cover what are called "criteria" pollutants because the health and other effects of each pollutant are described in criteria documents. The six criteria pollutants are O_3 (precursor emissions include nitrogen oxide (NOx) and reactive organic gases (ROG)), carbon monoxide (CO), particulate matter (PM), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and lead. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas. The SDAB is designated as a nonattainment area for the federal O_3 standard and is also a nonattainment area for the state standards for O_3, coarse particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$).

Toxic Air Contaminants

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. TACs are considered either carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For regulatory purposes, carcinogenic TACs are assumed to have no safe threshold below which health impacts would not occur, and cancer risk is

expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

There are many different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Additionally, diesel engines emit a complex mixture of air pollutants composed of gaseous and solid material. The solid emissions in diesel exhaust are known as diesel particulate matter (DPM). In 1998, California identified DPM as a TAC based on its potential to cause cancer, premature death, and other health problems (e.g., asthma attacks and other respiratory symptoms). Those most vulnerable are children (whose lungs are still developing) and the elderly (who may have other serious health problems). Overall, diesel engine emissions are responsible for the majority of California's known cancer risk from outdoor air pollutants. Public exposure to TACs can result from emissions from normal operations, as well as from accidental releases of hazardous materials during upset conditions. The health effects of TACs include cancer, birth defects, neurological damage, and death.

Sensitive Receptors

Sensitive receptors are defined as facilities or land uses that include members of the population who are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.

The nearest sensitive receptors to the project site are existing residences directly adjacent to the site's southwestern boundary. These residences front Campo Road. Additionally, the Spring Valley Middle School campus lies just north of the project site.

REGULATORY SETTING

Local Air Quality Management

As previously described, the SDAPCD is the local agency responsible for the administration and enforcement of air quality regulations in the SDAB. The SDAPCD monitors air quality in the SDAB and serves as the lead agency responsible for implementing and enforcing federal, state, and local air quality regulations. The Air District regulates most air pollutant sources, except for motor vehicles, marine vessels, aircraft, and agricultural equipment, which are regulated by CARB or the USEPA. State and local government projects, as well as projects proposed by the private sector, are subject to SDAPCD requirements if the sources are regulated by the District.

The SDAPCD and the San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB. The San Diego County Regional Air Quality Strategy (RAQS) was initially adopted in 1991 and

is updated on a triennial basis. The RAQS was updated in 1995, 1998, 2001, 2004, 2009 and most recently in 2016. The RAQS outlines the SDAPCD's plans and control measures designed to attain the state air quality standards for O_3. The SDAPCD has also developed the SDAB's input to the State Implementation Plan (SIP), which is required under the federal Clean Air Act for pollutants that are designated as being in nonattainment of federal air quality standards for the basin.

The RAQS relies on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth, to project future emissions and then establish the strategies necessary for the reduction of emissions through regulatory controls. The RAQS and the SIP utilized the *2030 Regional Transportation Plan* prepared by the SANDAG to project future growth in the air basin. The SIP relies on the same information from SANDAG to develop emission inventories and emission reduction strategies that are included in the attainment demonstration for the air basin. The plan also includes rules and regulations that have been adopted by the SDAPCD to control emissions from stationary sources. Stationary source control measures are developed by the SDAPCD with the goal of setting limits on the amount of emissions from various types of sources and/or requiring specific emissions control technologies. In order to implement control measures, a permit system is used to impose controls on new and modified stationary sources and to ensure compliance with regulations by prescribing specific operation conditions or equipment on a source.

At the time of this analysis, the SDAPCD had drafted the proposed *2020 Plan for Attaining the National Ozone Standards*, which is scheduled for a vote of approval by the District Board in early October. If approved by the SDAPCD Board, the plan will be submitted to CARB for their approval, and then submittal to the USEPA as a revision to the California SIP for attaining the O_3 standards. The *2020 Plan for Attaining the National Ozone Standards* demonstrates how the region will further reduce air pollutant emissions in order to attain the current National Ambient Air Quality Standards (NAAQS) for O_3 by specified dates. SANDAG was also involved in the preparation of the *2020 Plan for Attaining the National Ozone Standards* through the collection and review of the data necessary to generate comprehensive emission inventories, including socio-economic projections and industrial and travel activities.

Additionally, the SDAPCD has primary responsibility for controlling emissions from construction activity throughout the SDAB. In December 2005, the SDAPCD adopted the Measures to Reduce Particulate Matter in the SDAB. This document identifies fugitive dust as the major source of directly emitted particulate matter in the SDAB, with mobile sources and residential wood combustion as minor contributors. Data on $PM_{2.5}$ source apportionment indicates that the main contributors to $PM_{2.5}$ in the SDAB are combustion organic carbon, and ammonium sulfate and ammonium nitrate from combustion sources. The main contributors to PM_{10} include resuspended soil and road dust from unpaved and paved roads, construction and demolition sites, and mineral extraction and processing. Based on the report's evaluation of control measures recommended by CARB to reduce particulate matter emissions, the SDAPCD adopted Rule 55, the Fugitive Dust Rule, in June 2009. The SDAPCD requires that construction activities implement the measures listed in Rule 55 to minimize fugitive dust emissions. Rule 55 requires the following:

1. No person shall engage in construction or demolition activity in a manner that discharges visible dust emissions into the atmosphere beyond the property line for a period or periods aggregating more than 3 minutes in any 60-minute period.

2. Visible roadway dust as a result of active operations, spillage from transport trucks, erosion, or track-out/carry-out shall be minimized by the use of any of the equally effective track-out/carry-out and erosion control measures listed in Rule 55 that apply to the project or operation. These measures include track-out grates or gravel beds at each egress point; wheel-washing at each egress during muddy conditions; soil binders, chemical soil stabilizers, geotextiles, mulching, or seeding; watering for dust control; and using secured tarps or cargo covering, watering, or treating of transported material for outbound transport trucks. Erosion control measures must be removed at the conclusion of each workday when active operations cease, or every 24 hours for continuous operations.

AIR QUALITY IMPACTS

Methodology

Air quality emissions-related impacts were assessed in accordance with methodologies recommended by CARB and the SDAPCD. Where quantification is required, emissions are modeled using the California Emissions Estimator Model (CalEEMod), version 2016.3.2. CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. Project construction-generated emissions were primarily calculated using CalEEMod model defaults for San Diego County, though the span of construction and the equipment used during grading has been adjusted to reflect the information provided above (see Page 3). Specifically, it is anticipated that project construction would occur over a period of approximately 12 to 14 months from the onset of demolition through final construction. Grading would be accomplished with scrapers, motor graders, water trucks, dozers, and compaction equipment. Existing on-site vegetation (i.e., on the sports fields) and an existing modular building would be removed, while one structure and over 17,000 SF of asphalt would be demolished. Operational air pollutant emissions were calculated based on the project site plans and the estimated traffic trip generation rates from Michael Baker International (2020). Projected operational emissions associated with proposed operations are compared to the existing baseline, which includes a high-turnover restaurant operating out of a 2,310 SF building.

Air dispersion modeling for construction emissions was performed using the USEPA AERMOD dispersion model. AERMOD is a steady-state, multiple-source, Gaussian dispersion model designed for use with emission sources situated in terrain where ground elevations can exceed the stack heights of the emission sources (not a factor in this case).

Impact Discussion

The impact analysis provided below is based on the following California Environmental Quality Act (CEQA) Guidelines Appendix G thresholds of significance. The significance criteria established by the applicable air quality management or air pollution control district (SDAPCD) may be relied upon to make impact

determinations. According to the SDAPCD, an air quality impact is considered significant if the proposed project would violate any ambient air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations. The SDAPCD has established thresholds of significance for air quality for construction and operational activities of land use development projects such as that proposed, as shown in Table 2.

Table 2. SDAPCD Significance Thresholds – Pounds per Day

Air Pollutant	Construction Activities	Operations
Reactive Organic Gas	75	75
Carbon Monoxide	550	550
Nitrogen Oxide	250	250
Sulfur Oxide	250	250
Coarse Particulate Matter	100	100
Fine Particulate Matter	55	55

Would the Project Conflict with or Obstruct Implementation of the Applicable Air Quality Plan?

As part of its enforcement responsibilities, the USEPA requires each state with federal nonattainment areas to prepare and submit a SIP that demonstrates the means to attain the federal air quality standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in federal nonattainment areas, using a combination of performance standards and market-based programs. The SDAPCD currently monitors implementation of the SIP in the SDAB through the RAQS, which as previously described contains strategies and tactics to be applied in order to attain and maintain acceptable air quality in the SDAB. The RAQS is the applicable air quality plan for the proposed project. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date. As previously described, the SDAPCD had drafted the proposed *2020 Plan for Attaining the National Ozone Standards*, which is scheduled for a vote of approval by the District Board in early October. If approved by the SDAPCD Board, the plan will be submitted to CARB for their approval, and then submittal to the USEPA as a revision to the California SIP for attaining the O_3 standards.

Consistency with the RAQS is determined by two standards: (1) whether the project would increase the frequency or severity of violations of existing air quality standards, contribute to new violations, or delay the timely attainment of air quality standards or interim reductions as contained in the RAQS; and (2) whether the proposed project would exceed assumptions contained in the RAQS. The air quality emission projections and emission reduction strategies in the RAQS are based on information from CARB and SANDAG regarding mobile and area source emissions, as well as growth in unincorporated Spring Valley. CARB mobile source emissions projections and SANDAG growth projections are derived from population and vehicle use trends, and land use plans developed by the cities and the County of San Diego as part of their general plans. A project that proposes development consistent with the growth anticipated in a

general plan would be consistent with the RAQS (as well as the *2020 Plan for Attaining the National Ozone Standards*, when approved). Projects that propose development that is greater than the population growth projections and land use intensity of the adopted local general plan warrants further analysis to determine consistency with the RAQS and the SIP.

As evaluated below, the project would not exceed the short-term construction standards or long-term operational standards (see Table 3 and Table 4) and in so doing would not violate any air quality standards. Therefore, the project would not contribute to new violations, or delay the timely attainment of air quality standards or interim reductions as contained in the RAQS. Thus, the project would be consistent with the first criterion.

In terms of the second criterion, the project involves the replacement of the existing Casa de Oro branch library facility in the community of Spring Valley with a new branch library facility at a different location. The new library would be constructed on land that is currently disturbed and developed. Thus, the project would not represent a new type of land use in Spring Valley or an expanded source of air pollutant emissions. For instance, the project would not result in an increase of existing traffic in the Spring Valley area, a major source of air pollutants, as project traffic already occurs in association with the existing branch library. Additionally, no population growth would occur as a result of the project. Therefore, the project would not affect County-wide plans for population growth at in the Spring Valley area and would be consistent with the second criterion.

The project would not conflict with or obstruct implementation of the applicable air quality plan.

Would the Project Result in a Cumulative Considerable Net Increase of Any Criteria Pollutant for which the Project Region is Non-Attainment Under an Applicable Federal or State Ambient Air Quality Standard?

By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's individual emissions exceed its identified significance thresholds, the project would be cumulatively considerable. Projects that do not exceed significance thresholds would not be considered cumulative considerable.

A portion of the proposed project's air quality impacts are attributable to construction activities. The majority of the long-term air quality impacts will be due to the operation of motor vehicles traveling to and from the site. For purposes of impact assessment, air quality impacts have been separated into construction impacts and operational impacts.

Construction Emission Impacts

Construction-generated emissions are temporary and short-term but have the potential to represent a significant air quality impact. Three basic sources of short-term emissions will be generated through construction of the proposed project: operation of the construction vehicles (i.e., graders, scrapers, haul trucks), the creation of fugitive dust during clearing and grading, and the use of asphalt or other oil-based substances during paving activities. Construction activities such as demolition and grading operations,

construction vehicle traffic, and wind blowing over exposed soils would generate exhaust emissions and fugitive PM emissions that affect local air quality at various times during construction. Effects would be variable depending on the weather, soil conditions, the amount of activity taking place, and the nature of dust control efforts. The dry climate of the area during the summer months creates a high potential for dust generation. Construction activities would be subject to SDAPCD Rule 55, the Fugitive Dust Rule, as described above.

Construction-generated emissions associated with the proposed project were calculated using the CARB-approved CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. See Attachment A1 for more information regarding the construction assumptions, including construction equipment and duration, used in this analysis.

The SDAPCD identifies significance thresholds for ROG, CO, and NO_X, SO_2, PM_{10}, and $PM_{2.5}$. Predicted maximum daily construction-generated emissions for the proposed project are summarized in Table 3. Construction-generated emissions are short-term and of temporary duration, lasting only as long as construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the SDAPCD's thresholds of significance.

Table 3. Construction-Related Emissions

Construction Year	Maximum Pollutants (pounds per day)					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Construction in the Year 2021	4.48	53.22	26.73	0.07	7.16	4.07
Construction in the Year 2022	34.73	20.52	22.93	0.04	1.39	1.01
SDAPCD Potentially Significant Impact Threshold	*75*	*250*	*550*	*250*	*100*	*55*
Exceed SDAPCD Regional Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod version 2016.3.2. Refer to Attachment A1 for Model Data Outputs.
Notes: The emission reduction of watering the construction site is applied based on the required implementation of SDAPCD Rule 55.

As shown in Table 3, construction-generated emissions would not exceed SDAPCD significance thresholds. Since the project's emissions do not exceed SDAPCD thresholds, no exceedance of the ambient air quality standards would occur, and no health effects from project criteria pollutants would occur.

Operational Emission Impacts

Implementation of the project would result in long-term operational emissions of criteria air pollutants such as PM_{10}, $PM_{2.5}$, CO, and SO_2 as well as O_3 precursors such as ROG and NO_X. Project-generated increases in emissions would be predominantly associated with motor vehicle use. Operational air pollutant emissions were based on the project site plans and the estimated traffic trip generation rates from Michael Baker International (2020).

Long-term operational emissions attributable to the project are identified in Table 4 and compared to the existing baseline, which includes a high-turnover restaurant operating out of a 2,310 SF building. The difference is assessed against the regional operational significance thresholds promulgated by the SDAPCD.

Table 4. Operational-Related Emissions (Regional Significance Analysis)

Construction Year	Maximum Pollutants (tons per year)					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Proposed Project – 13,000 SF Library						
Area Source	0.39	0.00	0.00	0.00	0.00	0.00
Energy Use	0.00	0.04	0.03	0.00	0.00	0.00
Mobile Source	1.26	4.98	12.39	0.04	3.40	0.93
Total	**1.68**	**5.02**	**12.43**	**0.04**	**3.40**	**0.93**
Existing Baseline - 2,310 SF High Turnover Restaurant						
Area Source	0.06	0.00	0.00	0.00	0.00	0.00
Energy Use	0.02	0.11	0.09	0.00	0.00	0.00
Mobile Source	0.58	2.08	5.00	0.01	1.03	0.29
Total	**0.66**	**2.19**	**5.09**	**0.01**	**1.03**	**0.29**
Difference						
Area Source	+0.33	0.00	0.00	0.00	0.00	0.00
Energy Use	-0.02	-0.07	-0.06	0.00	0.00	0.00
Mobile Source	+0.68	+2.90	+7.39	+0.03	+2.37	+0.64
Total	**+1.02**	**+2.83**	**+7.34**	**+0.03**	**+2.37**	**+0.64**
SDAPCD Significance Threshold	*75*	*250*	*550*	*250*	*100*	*55*
Exceed SDAPCD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod version 2016.3.2. Refer to Attachment A1 *for Model Data Outputs.*

Notes: Proposed project emissions projections account for 937 vehicle trips per day and existing baseline emissions projections account for 410 vehicle trips per day, per the traffic trip generation rates from Michael Baker International (2020).

Construction emissions taken from the season (summer or winter) with the highest output.

As indicated in Table 4, project operational-generated emissions would not exceed SDAPCD significance thresholds.

Would the Project Expose Sensitive Receptors to Substantial Pollutant Concentrations?

Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has

identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. The nearest sensitive receptors to the project site are existing residences directly adjacent to the site's southwestern boundary. Additionally, the Spring Valley Middle School campus lies just north of the project site.

Construction Generated Air Contaminants

Construction-related activities would result in temporary, short-term proposed project-generated emissions of DPM, ROG, NO_x, CO, and PM_{10} from the exhaust of off-road, heavy-duty diesel equipment for site preparation (e.g., clearing, grading); soil hauling truck traffic; paving; and other miscellaneous activities. However, as shown in Table 3 the project would not exceed the SDAPCD emission thresholds during project construction. The portion of the SDAB which encompasses the project area is designated as a nonattainment area for the federal and state O_3 standards and for the state PM_{10} and $PM_{2.5}$ standards.

The health effects associated with O_3 are generally associated with reduced lung function. Because the project would not involve construction activities that would result in O_3 precursor emissions (ROG or NO_x) in excess of the SDAPCD thresholds, the project is not anticipated to substantially contribute to regional O_3 concentrations and the associated health impacts.

CO tends to be a localized impact associated with congested intersections. In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions. The project would not involve construction activities that would result in CO emissions in excess of the SDAPCD thresholds. Thus, the project's CO emissions would not contribute to the health effects associated with this pollutant.

Particulate matter (PM_{10} and $PM_{2.5}$) contains microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems. Particulate matter exposure has been linked to a variety of problems, including premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms such as irritation of the airways, coughing, or difficulty breathing. As with O_3 and NO_x, the project would not generate emissions of PM_{10} or $PM_{2.5}$ that would exceed the SDAPCD's thresholds. Additionally, the project would be required to comply with SDAPCD Rule 55, described above, which limits the amount of fugitive dust generated during construction. Accordingly, the project's PM_{10} and $PM_{2.5}$ emissions are not expected to cause any increase in related regional health effects for these pollutants.

DPM (exhaust $PM_{2.5}$) is the primary toxic air contaminant (TAC) of concern during construction activity. Modeled exhaust $PM_{2.5}$ is considered a surrogate for DPM because more than 90 percent of DPM is less than 1 microgram in diameter and therefore is a subset of particulate matter under 2.5 microns in diameter (i.e., $PM_{2.5}$). Based on the emission modeling conducted, the maximum onsite construction-related daily emissions of exhaust $PM_{2.5}$, considered a surrogate for DPM, would be 1.85 pounds in a single day (see Attachment A1). This would occur during the grading phase of construction. Most DPM derives from combustion, such as use of gasoline and diesel fuels by motor vehicles. The risks associated

with the carcinogenic effects of DPM are typically evaluated based on a lifetime of chronic exposure (i.e., 24 hours per day, seven days per week, 365 days per year for 70 years). Because the generation of project-related construction emissions of DPM would typically be limited to an eight-hour work day and occur for approximately one year, and grading activities would last substantially less than a year, the proposed project would not result in long-term chronic lifetime exposure to diesel exhaust from heavy duty diesel equipment.

In order to demonstrate this, air dispersion modeling of project construction generated DPM was performed using the USEPA AERMOD dispersion model. AERMOD is a steady-state, multiple-source, Gaussian dispersion model designed for use with emission sources situated in terrain where ground elevations can exceed the stack heights of the emission sources (not a factor in this case). AERMOD requires hourly meteorological data consisting of wind vector, wind speed, temperature, stability class, and mixing height. Surface and upper air meteorological data provided by CARB for Gillespie Field was selected as being the most representative meteorology based on proximity to the project site (approximately 5.5 miles distant).

Emissions sources in the model include 6 line-volume sources on the project site each day of construction, which is estimated to span between 12 – 14 months, to represent construction equipment maneuvering around the construction site. Additionally, emissions sources in the model include a separate line source (comprised of 7 line-volume sources collectively) representing the material haul truck routes from the project site to the State Route 94 onramp. The maximum daily exhaust emissions for all diesel equipment was used to produce an emission rate in terms of grams per second per square meter. Emissions from construction equipment were assigned a release height of 2.5 meters and heavy trucks were assigned a release height of 3.65 meters in order to provide a conservative analysis (i.e., using higher release heights would result in a smaller impact by allowing pollutants to disperse before they affect a receptor).

Construction equipment emissions were estimated using emission factors for exhaust fine particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) and exhaust coarse particulate matter spanning between 2.5 and 10 microns in diameter (PM_{10}) combined, as generated by the CARB-approved CalEEMod, version 2016.3.2. The model was run to obtain the peak one-hour and annual average concentration in micrograms per cubic meter ($\mu g/m^3$) at nearby sensitive receptors. Note that the concentration estimates developed using this methodology is considered conservative and is not a specific prediction of the actual concentrations that would occur as a result of the project any one point in time. Actual one-hour and annual average concentrations are dependent on many variables, particularly the number and type of equipment working at specific distances during time periods of adverse meteorology.

A health risk computation was performed to determine the risk of developing an excess cancer risk as a result of the full span of construction. The chronic and carcinogenic health risk calculations are based on the standardized equations contained in the OEHHA Guidance Manual (2015).

Based on the AERMOD outputs, the expected annual average DPM emission concentrations at the most exposed sensitive receptor resulting from project construction would be 0.067 $\mu g/m^3$ at the greatest and this would occur just to the east of the northeastern boundary of the site at the location of the school

district corporation yard. The calculated carcinogenic risk at this location as well as several other locations in the project vicinity as a result of project construction is depicted in Table 5.

Table 5. Maximum Cancer Risk for Project Construction

Exposure Scenario	Location	Maximum Cancer Risk (Risk per Million)	Significance Threshold (Risk per Million)	Exceeds SDAPCD Significance Threshold?
Construction – Highest Concentration	Adjacent to the northeastern boundary of the site, school corporation yard	8.00	*10*	**No**
Construction	Spring Valley Middle School Ball Field	2.86	*10*	**No**
Construction	Residences adjacent to southwestern boundary of the site	1.79	*10*	**No**
Construction	Tennis Courts across Campo Road	1.09	*10*	**No**
Construction	Residences to the west of the site	1.52	*10*	**No**
Construction	Grass Field to the northwest of the site	2.18	*10*	**No**

Source: Refer to Attachment A2 for Model Data Outputs

As shown, potential cancer risk from project construction would be below the 10 in one million threshold.

The significance thresholds for construction generated DPM exposure also requires an evaluation of non-cancer risk stated in terms of a hazard index. Non-cancer chronic impacts are calculated by dividing the annual average concentration by the REL for that substance. The REL is defined as the concentration at which no adverse non-cancer health effects are anticipated. The potential for acute non-cancer hazards is evaluated by comparing the maximum short-term exposure level to an acute REL. RELs are designed to protect sensitive individuals within the population. The calculation of acute non-cancer impacts is similar to the procedure for chronic non-cancer impacts.

An acute or chronic hazard index of 1.0 is considered individually significant. The hazard index is calculated by dividing the acute or chronic exposure by the reference exposure level. The highest maximum chronic and acute hazard index would occur just to the east of the northeastern boundary of the site at the location of the school district corporation yard. Specifically, the highest maximum chronic and acute hazard index would be 0.01 and 0.35, respectively. Therefore, non-carcinogenic hazards are calculated to be within acceptable limits.

In summary, the project would not result in a potentially significant contribution to regional concentrations of nonattainment pollutants and would not result in a significant contribution to the adverse health impacts associated with those pollutants.

Operational Air Contaminants

Operation of the proposed project would not result in the development of any substantial sources of air toxics. There are no stationary sources associated with the operations of the project; nor would the project

attract mobile sources that spend long periods queuing and idling at the site. Thus, by its very nature, would not be a source of TAC concentrations during proposed project operations.

Carbon Monoxide Hot Spots

It has long been recognized that CO exceedances are caused by vehicular emissions, primarily when idling at intersections. Concentrations of CO are a direct function of the number of vehicles, length of delay, and traffic flow conditions. Under certain meteorological conditions, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Given the high traffic volume potential, areas of high CO concentrations, or "hot spots," are typically associated with intersections that are projected to operate at unacceptable levels of service during the peak commute hours. It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. However, transport of this criteria pollutant is extremely limited, and CO disperses rapidly with distance from the source under normal meteorological conditions. Furthermore, vehicle emissions standards have become increasingly more stringent in the last 20 years. In 1993, much of the state was designated nonattainment under the California Ambient Air Quality Standards (CAAQS) and NAAQS for CO. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration across the entire state is now designated as attainment. Detailed modeling of project-specific CO "hot spots" is not necessary and thus this potential impact is addressed qualitatively.

A CO "hot spot" would occur if an exceedance of the state one-hour standard of 20 parts per million (ppm) or the eight-hour standard of 9 ppm were to occur. The analysis prepared for CO attainment in the South Coast Air Quality Management District's (SCAQMD's) *1992 Federal Attainment Plan for Carbon Monoxide* in Los Angeles County and a Modeling and Attainment Demonstration prepared by the SCAQMD as part of the 2003 AQMP can be used to demonstrate the potential for CO exceedances of these standards. The SCAQMD conducted a CO hot spot analysis as part of the 1992 CO Federal Attainment Plan at four busy intersections in Los Angeles County during the peak morning and afternoon time periods. The intersections evaluated included Long Beach Boulevard and Imperial Highway (Lynwood), Wilshire Boulevard and Veteran Avenue (Westwood), Sunset Boulevard and Highland Avenue (Hollywood), and La Cienega Boulevard and Century Boulevard (Inglewood). The busiest intersection evaluated was at Wilshire Boulevard and Veteran Avenue, which has a traffic volume of approximately 100,000 vehicles per day. Despite this level of traffic, the CO analysis concluded that there was no violation of CO standards (SCAQMD 1992). Similar considerations are also employed by other Air Districts when evaluating potential CO concentration impacts. More specifically, the Bay Area Air Quality Management District (BAAQMD) concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact.

In order to establish a more accurate record of baseline CO concentrations affecting the South Coast Air Basin, a CO "hot spot" analysis was conducted in 2003 at the same four busy intersections in Los Angeles at the peak morning and afternoon time periods. This "hot spot" analysis did not predict any violation of CO standards. The highest one-hour concentration was measured at 4.6 ppm at Wilshire Boulevard and Veteran Avenue and the highest eight-hour concentration was measured at 8.4 ppm at Long Beach Boulevard and Imperial Highway.

According to the Traffic Study prepared for the project (Michael Baker International 2020), the project is anticipated to generate 937 daily trips on average, which represents an increase of 527 average daily trips over existing conditions (937 project trips – 410 existing high turnover restaurant trips = 527). Because the proposed project would not increase traffic volumes at any intersection to more than 100,000 vehicles per day, or even 44,000 vehicles per day, there is no likelihood of the project traffic exceeding CO values. CO "hot spots" are not an environmental impact of concern for the project. Localized air quality impacts related to mobile source emissions would not be a concern.

Would the Project Result in Other Emissions (Such as Those Leading to Odors) Adversely Affecting a Substantial Number of People?

Typically, odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals have the ability to smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; in fact, an odor that is offensive to one person (e.g., from a fast-food restaurant) may be perfectly acceptable to another. It is also important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

Project Construction

During construction, the proposed project presents the potential for generation of objectionable odors in the form of diesel exhaust in the immediate vicinity of the site. However, these emissions are short term in nature and will rapidly dissipate and be diluted by the atmosphere downwind of the emission sources. Additionally, odors would be localized and generally confined to the construction area.

Project Operations

Land uses commonly considered to be potential sources of obnoxious odorous emissions include agriculture (farming and livestock), wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, landfills, dairies, and fiberglass molding. The proposed project does not include any uses identified as being associated with odors.

GREENHOUSE GAS EMISSIONS ANALYSIS

Environmental Setting

Greenhouse gas (GHG) emissions are released as byproducts of fossil fuel combustion, waste disposal, energy use, land use changes, and other human activities. This release of gases, such as carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and chlorofluorocarbons, creates a blanket around the earth that allows light to pass through but traps heat at the surface, preventing its escape into space. While this is a naturally occurring process known as the greenhouse effect, human activities have accelerated the generation of GHGs beyond natural levels. The overabundance of GHGs in the atmosphere has led to an unexpected warming of the earth and has the potential to severely impact the earth's climate system.

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. CH_4 traps over 25 times more heat per molecule than CO_2, and N_2O absorbs 298 times more heat per molecule than CO_2. Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO_2e). Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted.

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and TACs, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the exact lifetime of any particular GHG molecule is dependent on multiple variables and cannot be pinpointed, it is understood that more CO_2 is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, or other forms. Of the total annual human-caused CO_2 emissions, approximately 55 percent is sequestered through ocean and land uptakes every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO_2 emissions remains stored in the atmosphere.

The quantity of GHGs that it takes to ultimately result in climate change is not precisely known; it is sufficient to say the quantity is enormous, and no single project alone would measurably contribute to a noticeable incremental change in the global average temperature or to global, local, or microclimates. From the standpoint of CEQA, GHG impacts to global climate change are inherently cumulative.

In 2019, CARB released the 2019 edition of the California GHG inventory covering calendar year 2017 emissions. In 2017, California emitted 424.1 million gross metric tons of CO2e including from imported electricity. Combustion of fossil fuel in the transportation sector was the single largest source of California's GHG emissions in 2017, accounting for approximately 41 percent of total GHG emissions in the state. This sector was followed by the industrial sector (24 percent) and the electric power sector including both in-state and out-of-state sources (15 percent) (CARB 2019). Emissions of CO_2 are byproducts of fossil fuel combustion. CH_4, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. N_2O is also largely attributable to agricultural practices and soil management. Carbon dioxide sinks, or reservoirs, include vegetation and the ocean, which absorb CO_2 through sequestration and dissolution (CO_2 dissolving into the water), respectively, two of the most common processes for removing CO_2 from the atmosphere.

REGULATORY SETTING

Executive Order S-3-05

Executive Order (EO) S-3-05, signed by Governor Arnold Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra Nevada snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the EO established total GHG emission targets for the state. Specifically, emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

Assembly Bill 32 Climate Change Scoping Plan and Updates

In 2006, the California legislature passed Assembly Bill (AB) 32 (Health and Safety Code § 38500 et seq., or AB 32), also known as the Global Warming Solutions Act. AB 32 requires CARB to design and implement feasible and cost-effective emission limits, regulations, and other measures, such that statewide GHG emissions are reduced to 1990 levels by 2020 (representing a 25 percent reduction in emissions). Pursuant to AB 32, CARB adopted a Scoping Plan in December 2008, which outlines measures to meet the 2020 GHG reduction goals. California is on track to meet or exceed the target of reducing GHG emissions to 1990 levels by the end of 2020.

The Scoping Plan is required by AB 32 to be updated at least every five years. The latest update, the 2017 Scoping Plan Update, addresses the 2030 target established by Senate Bill (SB) 32 as discussed below and establishes a proposed framework of action for California to meet a 40 percent reduction in GHG emissions by 2030 compared to 1990 levels. The key programs that the Scoping Plan Update builds on include increasing the use of renewable energy in the state, the Cap-and-Trade Regulation, the Low Carbon Fuel Standard, and reduction of methane emissions from agricultural and other wastes.

Senate Bill 32 and Assembly Bill 197 of 2016

In August 2016, Governor Brown signed SB 32 and AB 197, which serve to extend California's GHG reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include § 38566, which contains language to authorize CARB to achieve a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030.

Senate Bill 100 of 2018

In 2018, SB 100 was signed codifying a goal of 60 percent renewable procurement by 2030 and 100 percent by 2045 Renewables Portfolio Standard.

2019 Building Energy Efficiency Standards for Residential and Nonresidential Buildings

The Building and Efficiency Standards (Energy Standards) were first adopted and put into effect in 1978 and have been updated periodically in the intervening years. The 2019 Building Energy Efficiency Standards improve upon the 2016 Energy Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The 2019 standards are a major step toward meeting Zero Net Energy. According to the California Energy Commission, single-family homes built with the 2019 standards will use about 7 percent less energy due to energy efficiency measures versus those built under the 2016 standards and nonresidential buildings will use about 30 percent less energy (due mainly to lighting upgrades) (CEC 2018).

County of San Diego Climate Action Plan

In February 2018, the County's Board of Supervisors adopted a Climate Action Plan (CAP) that serves as a long-term programmatic plan that identifies strategies and measures to meet the County's targets to reduce GHG emissions by 2020 and 2030, consistent with the State's legislative GHG reduction targets, and demonstrates progress towards the State's 2050 GHG reduction goal. The Board's adoption of the CAP is the culmination of a multi-year plan development process that followed from the judicial invalidation (see Sierra Club v. County of San Diego (Case No. D064243)) of the County's prior CAP, which was adopted in 2012. When certifying the Environmental Impact Report (EIR) for the CAP, the Board also adopted mitigation measure M-GHG-1, establishing a protocol through which projects requiring a General Plan Amendment may meet a portion of their GHG reduction obligation by purchasing GHG emission offsets, including offsets that are generated by GHG reduction activities located outside of the County. In March 2018, several petitioners filed a lawsuit against the County alleging that the CAP, and in particular M-GHG-1, were inconsistent with the County General Plan Conservation and Open Space Element. In December 2018, the San Diego Superior Court ruled against the County, finding that the County General Plan Conservation and Open Space Element contains policy provisions that are "fundamental, mandatory, and clear" policies requiring only in-County GHG emissions reductions and foreclosing the use of offsets if such offsets originated outside San Diego County. The Court issued a writ ordering the approval of the CAP and its EIR to be set aside, and enjoining reliance on the County CAP's mitigation measure M-GHG-1. In January 2019, the County appealed the San Diego Superior Court ruling

which stayed the above described writ. In June 2020, the 4th District Court of Appeal in San Diego upheld the ruling to invalidate portions of the CAP and CAP EIR. In response to a June 12 Court of Appeal ruling, the County is revising its 2018 CAP and associated EIR yet seeks to continue implementing sustainability measures to effectively reduce GHG emissions as part of its ongoing commitment to the environment. The court ruling struck down part of the CAP and CAP EIR but did not find fault with its 26 GHG reduction measures.

GREENHOUSE GAS EMISSIONS IMPACTS

Methodology

Where quantification is required, GHG emissions are modeled using CalEEMod. Project construction generated GHG emissions were primarily calculated using CalEEMod model defaults for San Diego County, though the span of construction and the equipment used during grading has been adjusted to reflect the information provided above (see Page 3). Specifically, it is anticipated that project construction would occur over a period of approximately 12 to 14 months from the onset of demolition through final construction. Grading would be accomplished with scrapers, motor graders, water trucks, dozers, and compaction equipment. Existing on-site vegetation (i.e., on the sports fields) and an existing modular building would be removed, while one structure and over 17,000 SF of asphalt would be demolished. Operational GHG emissions were calculated based on the project site plans and the estimated traffic trip generation rates from Michael Baker International (2020). Projected operational GHG emissions associated with proposed operations are compared to the existing baseline, which includes a high-turnover restaurant operating out of a 2,310 SF building.

Impact Discussion

As previously described, the County is revising its 2018 CAP and associated EIR. Therefore, this CEQA analysis does not rely on the CAP to streamline the project's environmental analysis under CEQA Guidelines Section 15183.5. Rather, project GHG emissions are quantified and compared to the thresholds issued by the California Air Pollution Control Officers Association (CAPCOA), which is an association of the air pollution control officers from all 35 local air quality agencies throughout California, including the SDAPCD. CAPCOA recommends a significance threshold of 900 metric tons annually. This threshold is based on a capture rate of 90 percent of land use development projects, which in turn translates into a 90 percent capture rate of all GHG emissions. The 900 metric ton threshold, the lowest promulgated in any region in the state, is considered by CAPCOA to be low enough to capture a substantial fraction of future projects that will be constructed to accommodate future statewide population and economic growth, while setting the emission threshold high enough to exclude small projects that will in aggregate contribute a relatively small fraction of the cumulative statewide GHG emissions.

In *Center for Biological Diversity v. Department of Fish and Wildlife* (2015) 62 Cal. 4th 2014, 213, 221, 227, following its review of various potential GHG thresholds proposed in an academic study [Crockett, *Addressing the Significance of Greenhouse Gas Emissions: California's Search for Regulatory Certainty in an Uncertain World* (July 2011), 4 Golden Gate U. Envtl. L. J. 203], the California Supreme Court identified the use of numeric bright-line thresholds as a potential pathway for compliance with CEQA GHG

requirements. The study found numeric bright line thresholds designed to determine when small projects were so small as to not cause a cumulatively considerable impact on global climate change was consistent with CEQA. Specifically, Public Resources Code section 21003(f) provides it is a policy of the state that "[a]ll persons and public agencies involved in the environmental review process be responsible for carrying out the process in the most efficient, expeditious manner in order to conserve the available financial, governmental, physical and social resources with the objective that those resources may be better applied toward the mitigation of actual significant effects on the environment." The Supreme Court-reviewed study noted, "[s]ubjecting the smallest projects to the full panoply of CEQA requirements, even though the public benefit would be minimal, would not be consistent with implementing the statute in the most efficient, expeditious manner. Nor would it be consistent with applying lead agencies' scarce resources toward mitigating actual significant climate change impacts." (Crockett, *Addressing the Significance of Greenhouse Gas Emissions: California's Search for Regulatory Certainty in an Uncertain World* (July 2011), 4 Golden Gate U. Envtl. L. J. 203, 221, 227.)

As previously described, the 900 metric tons of CO_2e per year threshold represents a 90 percent capture rate (i.e., this threshold captures projects that represent approximately 90 percent of GHG emissions from new sources). The 900 metric tons of CO_2e per year value is typically used in defining small projects that are considered less than significant because it represents less than one percent of future 2050 statewide GHG emissions target and the lead agency can provide more efficient implementation of CEQA by focusing its scarce resources on the top 90 percent. Land use projects above the 900 metric tons of CO_2e per year level would fall within the percentage of largest projects that are worth mitigating without wasting scarce financial, governmental, physical and social resources. (SCAQMD, Draft Guidance Document – Interim CEQA Greenhouse Gas Significance Threshold, at pp. 3-2 and 3-3; Crockett 2011). As noted in the academic study, the fact that small projects below a numeric bright line threshold are not subject to CEQA-based mitigation, does not mean such small projects do not help the state achieve its climate change goals because even small projects participate in or comply with non-CEQA-based GHG reduction programs, such constructing development in accordance with statewide GHG-reducing energy efficiency building standards, called Cal Green or Title 24 energy-efficiency building standards (Crockett 2011), which among many goals seek to reduce GHG emissions from construction projects.

The project is also evaluated for consistency with the County's General Plan Conservation and Open Space Element, which includes smart growth and land use planning principles designed to result in a reduction in GHG emissions. Additionally, it is noted that while the County is currently revising its 2018 CAP and associated EIR at the time of this analysis, the court ruling, previously described, struck down part of the CAP and CAP EIR but did not find fault with its GHG reduction measures. Therefore, the project is assessed for consistency with the CAP Consistency Review Checklist (Checklist). The Checklist is the mechanism that is used to demonstrate consistency with the CAP's reduction measures. If a project does not comply with required actions in the Checklist, it would be determined to be inconsistent with the County's GHG reduction goals. If a project is consistent with the Checklist, a project, in terms of GHG emissions, was accounted for in the CAP's projections and would not increase emissions beyond what is anticipated in the CAP or inhibit the County from reaching its reduction targets.

Would the Project Generate Greenhouse Gas Emissions, Either Directly or Indirectly, That May Have a Significant Impact on the Environment?

Construction-Generated Greenhouse Gas Emissions

A potent source of GHG emissions associated with the proposed project would be combustion of fossil fuels during construction activities. The construction phase of the proposed project is temporary but would result in GHG emissions from the use of heavy construction equipment and construction-related vehicle trips.

Construction-related activities that would generate GHGs include worker commute trips, haul trucks carrying supplies and materials to and from the project site, and off-road construction equipment (e.g., dozers, loaders, excavators). Table 6 illustrates the specific construction generated GHG emissions that would result from construction of the project.

Table 6. Construction-Related Greenhouse Gas Emissions

Emission Source	CO_2e (Metric Tons/ Year)
Construction in the Year 2021	407
Construction in the Year 2022	65
CAPCOA's Potentially Significant Impact Threshold	*900*
Exceed Significance Threshold?	**No**

Source: CalEEMod version 2016.3.2. Refer to Attachment B for Model Data Outputs.

As shown in Table 6, project construction would not result in the exceedance of 900 metric tons of CO_2e during any year of construction. Once construction is complete, the generation of these GHG emissions would cease.

Operational-Generated Greenhouse Gas Emissions

Operation of the project would result in GHG emissions predominantly associated with the use of motor vehicles traveling to and from the site. Operational GHG emissions were based on the project site plans and the estimated traffic trip generation rates from Michael Baker International (2020). Long-term operational emissions attributable to the project are identified in Table 7 and compared to the existing baseline, which includes a high-turnover restaurant operating out of a 2,310 SF building.

Table 7. Operational-Related GHG Emissions	
Emissions Source	**CO_2e (Metric Tons/ Year)**
Proposed Project – 13,000 SF Library	
Area Source Emissions	0
Energy Source Emissions	43
Mobile Source Emissions	649
Solid Waste Emissions	6
Water Emissions	5
Total Emissions	**703**
Existing Baseline - 2,310 SF High Turnover Restaurant	
Area Source Emissions	0
Energy Source Emissions	54
Mobile Source Emissions	215
Solid Waste Emissions	14
Water Emissions	4
Total Emissions	**287**
Difference	
Area Source Emissions	0
Energy Source Emissions	-11
Mobile Source Emissions	+434
Solid Waste Emissions	-8
Water Emissions	+1
Total Emissions	**+416**
CAPCOA's Potentially Significant Impact Threshold	*900*
Exceed Significance Threshold?	**No**

Source: CalEEMod version 2016.3.2. Refer to Attachment B for Model Data Outputs.

As shown in Table 7, project operations would result in an increase of approximately 416 metric tons of CO_2e annually compared with existing conditions and would not exceed CAPCOA's significance threshold of 900 metric tons annually.

Would the Project Conflict with an Applicable Plan, Policy, or Regulation Adopted for the Purpose of Reducing the Emissions of Greenhouse Gases?

The County of San Diego does not currently have an adopted plan for the purpose of reducing GHG emissions. However, as previously described the State of California promulgates several mandates and goals to reduce statewide GHG emissions, including the goal to reduce statewide GHG emissions to 40 percent below 1990 levels by the year 2030 (SB 32). As previously shown, project generated GHG emissions would not exceed GHG significance thresholds, which were prepared with the purpose of complying with statewide GHG emission reduction goals. Furthermore, it may be noted the existing Casa de Oro branch library would be replaced by the proposed new library. Thus, the majority of project traffic trips, a predominate source of GHG emissions, would actually not be new. It is additionally noted that the proposed project aims to achieve "zero net energy" consistent with statewide GHG reduction goals.

The County's General Plan Conservation and Open Space Element includes smart growth and land use planning principles designed to result in a reduction in GHG emissions. Table 8 presents the project's consistency with applicable General Plan strategies, goals, and policies.

Table 8. County Greenhouse Gas Related General Plan Policies	
COS 14.3 Sustainable Development. Require design of residential subdivisions and nonresidential development through "green" and sustainable land development practices to conserve energy, water, open space, and natural resources.	**Consistent.** As discussed, the proposed new library would replace the existing Casa de Oro branch library. The new library would be constructed consistent with the 2019 Building and Efficiency Standards (Title 24) which are substantially more efficient than the standards regulating past development. Additionally, the proposed project aims to achieve "zero net energy".
COS 14.7 Alternative Energy Sources for Development Projects. Encourage development projects that use energy recovery, photovoltaic, and wind energy.	**Consistent.** The proposed project aims to achieve "zero net energy", which would likely require the employment of alternative energy sources.
COS 14.10 Low Emission Construction Vehicles and Equipment. Require County contractors and encourage other developers to use low-emission construction vehicles and equipment to improve air quality and reduce GHG emissions.	**Consistent.** The project would be constructed in compliance with all applicable SDAPCD rules and regulations related to the reduction of construction emissions.
COS 15.1 Design and Construction of New Buildings. Require that new buildings be designed and constructed in accordance with "green building" programs that incorporate techniques and materials that maximize energy efficiency, incorporate the use of sustainable resources and recycled materials, and reduce emissions of GHGs and toxic air contaminants.	**Consistent.** The project proposes sustainability and efficiency features consistent with the requirement of the 2019 Building and Efficiency Standards (Title 24). As stated, the proposed project aims to achieve "zero net energy."
COS 15.4 Title 24 Energy Standards. Require development to minimize energy impacts from new buildings in accordance with or exceeding Title 24 energy standards.	**Consistent.** The project proposes implementing energy efficiency features that would meet 2019 Title 24 standards.
COS 17.1 Reduction of Solid Waste Materials. Reduce GHG emissions and future landfill capacity needs through reduction, reuse, or recycling of all types of solid waste that is generated. Divert solid waste from landfills in compliance with State law.	**Consistent.** Areas for storage and collection of recyclables would be provided.
COS 17.2 Construction and Demolition Waste. Require recycling, reduction and reuse of construction and demolition debris.	**Consistent.** The project would be required to comply with Section 68.508-68.518 of the County Municipal Code, which requires the diversion at least 90 percent of inerts and 70 percent of construction waste from landfills through reuse and recycling.

Implementing the County of San Diego General Plan Conservation and Open Space Element will greatly reduce the regional GHG emissions. As shown, the proposed project would in no way conflict with the stated goals of the Conservation and Open Space Element.

The project is also assessed for consistency with the CAP Checklist. The purpose of the Checklist is to implement GHG reduction measures from the CAP that apply to new development projects. The CAP presents the County's comprehensive strategy to reduce GHG emissions to meet its reduction targets. These reductions will be achieved through a combination of County initiatives and reduction actions for both existing and new development. Reduction actions that apply to existing and new development will be implemented through a combination of mandatory requirements and incentives.

The first step in determining consistency with the Checklist is to assess the project's consistency with the growth projections used in the development of the CAP. The project is consistent with the GHG inventory

and forecast in the CAP. Both the existing and the projected GHG inventories in the CAP were derived based on the land use designations and associated densities defined in the County's General Plan. The project involves the replacement of the existing Casa de Oro branch library facility in the community of Spring Valley with a new branch library facility at a different location. The new library would be constructed on land that is currently disturbed and developed. Thus, the project would not represent a new type of land use in Spring Valley or an expanded source of GHG emissions. For instance, the project would not result in an increase of existing traffic in the Spring Valley area, a major source of GHG emissions, as project traffic already occurs in association with the existing branch library. Therefore, the project would not affect County-wide plans for growth at in the Spring Valley area. The second step of the Checklist consistency review is to review and evaluate a project's consistency with the applicable reduction measures of the Checklist. All development in San Diego County, including the project, is required to adhere to all County-adopted policy provisions, including those contained in the Checklist. The County ensures all project-applicable provisions of the Checklist are incorporated into projects and their permits through development review and applications of conditions of approval as applicable. In terms of vehicle mile reduction provisions in the Checklist, it is noted that the existing Casa de Oro branch library would be replaced by the proposed new library. Thus, the majority of project traffic trips, a predominate source of GHG emissions, would actually not be new. In terms of water use efficiency requirements in the Checklist, the project is required to submit a Landscape Document Package that is compliant with the County's Water Conservation in Landscaping Ordinance and that demonstrates a 40 percent reduction in current maximum applied water allowance (MAWA) for outdoor use. It is noted that the project proposes to remove approximately 0.75 acre of existing on-site turf (i.e., on the sports fields), which requires a substantial amount of irrigation. The proposed project is consistent with the Checklist. Although, the Project would be conditioned to include all relevant measures of the Checklist, the project does not rely on M-GHG-1, described above.

For the reasons described, the proposed project would not interfere with the County's ability to reduce countywide GHG emissions.

REFERENCES

CARB (California Air Resources Board). 2019. California Greenhouse Gas Emission Inventory 2019 Edition. https://ww3.arb.ca.gov/cc/inventory/data/data.htm.

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CEC (California Energy Commission). 2018. 2019 Building Energy Efficiency Standards- Frequently Asked Questions.

Crockett, Alexander G. 2011. Addressing the Significance of Greenhouse Gas Emissions Under CEQA: California's Search for Regulatory Certainty in an Uncertain World.

Michael Baker International. 2020. Transportation Impact Analysis: Casa de Oro Library.

OEHHA (Office of Environmental Health Hazard Assessment). 2015. Guidance Manual for Preparation of Health Risk Assessments.

SCAQMD (South Coast Air Quality Management District). 2003. Air Quality Management Plan.

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ATTACHMENT A1

Daily Criteria Air Pollutant Emissions Modeling Output

Casa De Oro - Proposed Project

San Diego County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Library	13.00	1000sqft	0.30	13,000.00	0
Other Non-Asphalt Surfaces	3.00	1000sqft	0.07	3,000.00	0
Other Non-Asphalt Surfaces	0.90	Acre	0.90	39,204.00	0
Parking Lot	52.00	Space	0.47	20,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2022
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Casa De Oro - Proposed Project - San Diego County, Summer

Project Characteristics -

Land Use - Land uses account for library, parking lot, access driveway, landscaping, and fencing

Construction Phase - Construction expected to last 12 - 14 months. Building construction and paving assumed to occur simultaneously

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - The Project Description notes that grading will employ scrapers, graders, water trucks (accounted for in Construction Trips), dozers and compaction equipment

Off-road Equipment -

Demolition - 885.7 tons of demolished debris accounted. Conservatively includes modular building, as this is only being removed, existing restaurant, 17,424 sf of asphalt, and existing building fronting Campo Road

Grading - Exported material includes removal of grass fields. Imported material per Project Description

Vehicle Trips - Trip generation per Proejct Traffic Impact Assessment

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Energy Mitigation - 2019 Building Energy Efficiency Standards 30% more efficient in nonresidential building than Standards built-in to CalEEMod

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	4.00	20.00
tblConstructionPhase	NumDays	10.00	189.00
tblConstructionPhase	NumDays	2.00	15.00
tblGrading	MaterialExported	0.00	1,452.00
tblGrading	MaterialImported	0.00	2,000.00
tblGrading	MaterialImported	0.00	2,000.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblVehicleTrips	ST_TR	46.55	72.08
tblVehicleTrips	SU_TR	25.49	72.08
tblVehicleTrips	WD_TR	56.24	72.08

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					
2021	4.4802	53.2246	26.7375	0.0732	12.2750	2.0364	14.3114	5.4089	1.8748	7.2836	0.0000	7,302.1753	7,302.1753	1.8704	0.0000	7,348.9349
2022	34.7317	20.5238	22.9372	0.0423	0.4509	0.9410	1.3919	0.1215	0.8938	1.0152	0.0000	3,998.3101	3,998.3101	0.7937	0.0000	4,018.1524
Maximum	**34.7317**	**53.2246**	**26.7375**	**0.0732**	**12.2750**	**2.0364**	**14.3114**	**5.4089**	**1.8748**	**7.2836**	**0.0000**	**7,302.1753**	**7,302.1753**	**1.8704**	**0.0000**	**7,348.9349**

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					
2021	4.4802	53.2246	26.7375	0.0732	5.1327	2.0364	7.1691	2.2031	1.8748	4.0779	0.0000	7,302.1752	7,302.1752	1.8704	0.0000	7,348.9349
2022	34.7317	20.5238	22.9372	0.0423	0.4509	0.9410	1.3919	0.1215	0.8938	1.0152	0.0000	3,998.3101	3,998.3101	0.7937	0.0000	4,018.1524
Maximum	**34.7317**	**53.2246**	**26.7375**	**0.0732**	**5.1327**	**2.0364**	**7.1691**	**2.2031**	**1.8748**	**4.0779**	**0.0000**	**7,302.1752**	**7,302.1752**	**1.8704**	**0.0000**	**7,348.9349**

Casa De Oro - Proposed Project - San Diego County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**56.12**	**0.00**	**45.48**	**57.97**	**0.00**	**38.63**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3957	6.0000e-005	7.0500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0151	0.0151	4.0000e-005		0.0161
Energy	4.4400e-003	0.0404	0.0339	2.4000e-004		3.0700e-003	3.0700e-003		3.0700e-003	3.0700e-003		48.4384	48.4384	9.3000e-004	8.9000e-004	48.7262
Mobile	1.2884	4.9006	12.2297	0.0403	3.3675	0.0332	3.4006	0.9000	0.0310	0.9310		4,099.3581	4,099.3581	0.2216		4,104.8973
Total	**1.6886**	**4.9411**	**12.2706**	**0.0405**	**3.3675**	**0.0363**	**3.4037**	**0.9000**	**0.0341**	**0.9341**		**4,147.8115**	**4,147.8115**	**0.2225**	**8.9000e-004**	**4,153.6395**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3957	6.0000e-005	7.0500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0151	0.0151	4.0000e-005		0.0161
Energy	3.9400e-003	0.0359	0.0301	2.2000e-004		2.7200e-003	2.7200e-003		2.7200e-003	2.7200e-003		43.0205	43.0205	8.2000e-004	7.9000e-004	43.2761
Mobile	1.2884	4.9006	12.2297	0.0403	3.3675	0.0332	3.4006	0.9000	0.0310	0.9310		4,099.3581	4,099.3581	0.2216		4,104.8973
Total	**1.6881**	**4.9366**	**12.2668**	**0.0405**	**3.3675**	**0.0359**	**3.4034**	**0.9000**	**0.0337**	**0.9337**		**4,142.3936**	**4,142.3936**	**0.2224**	**7.9000e-004**	**4,148.1895**

	ROG	NOx	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	**0.03**	**0.09**	**0.03**	**0.05**	**0.00**	**0.96**	**0.01**	**0.00**	**1.03**	**0.04**	**0.00**	**0.13**	**0.13**	**0.05**	**11.24**	**0.13**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/1/2021	3/26/2021	5	20	
2	Site Preparation	Site Preparation	3/27/2021	4/16/2021	5	15	
3	Grading	Grading	4/17/2021	5/14/2021	5	20	
4	Building Construction	Building Construction	5/15/2021	2/18/2022	5	200	
5	Paving	Paving	6/1/2021	2/18/2022	5	189	
6	Architectural Coating	Architectural Coating	2/19/2022	3/4/2022	5	10	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 50

Acres of Paving: 1.44

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 19,500; Non-Residential Outdoor: 6,500; Striped Parking Area: 3,780 (Architectural Coating – sqft)

OffRoad Equipment

Casa De Oro - Proposed Project - San Diego County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	2	6.00	187	0.41
Grading	Plate Compactors	1	7.00	8	0.43
Grading	Rollers	1	7.00	80	0.38
Grading	Rubber Tired Dozers	2	6.00	247	0.40
Grading	Scrapers	2	7.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	88.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	250.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	23.00	0.00	432.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	32.00	12.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	6.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.9595	0.0000	0.9595	0.1453	0.0000	0.1453			0.0000			0.0000
Off-Road	1.9930	19.6966	14.4925	0.0241		1.0409	1.0409		0.9715	0.9715		2,322.7171	2,322.7171	0.5940		2,337.5658
Total	**1.9930**	**19.6966**	**14.4925**	**0.0241**	**0.9595**	**1.0409**	**2.0004**	**0.1453**	**0.9715**	**1.1168**		**2,322.7171**	**2,322.7171**	**0.5940**		**2,337.5658**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0327	1.1279	0.2759	3.3900e-003	0.0769	3.4400e-003	0.0803	0.0211	3.2900e-003	0.0244		372.0993	372.0993	0.0329		372.9211
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	0.0450	0.0292	0.3448	1.0600e-003	0.1068	7.4000e-004	0.1075	0.0283	6.8000e-004	0.0290		105.8773	105.8773	3.0200e-003		105.9529
Total	**0.0776**	**1.1571**	**0.6207**	**4.4500e-003**	**0.1837**	**4.1800e-003**	**0.1879**	**0.0494**	**3.9700e-003**	**0.0534**		**477.9766**	**477.9766**	**0.0359**		**478.8739**

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					0.3742	0.0000	0.3742	0.0567	0.0000	0.0567			0.0000			0.0000
Off-Road	1.9930	19.6966	14.4925	0.0241		1.0409	1.0409		0.9715	0.9715	0.0000	2,322.7171	2,322.7171	0.5940		2,337.5658
Total	**1.9930**	**19.6966**	**14.4925**	**0.0241**	**0.3742**	**1.0409**	**1.4151**	**0.0567**	**0.9715**	**1.0281**	**0.0000**	**2,322.7171**	**2,322.7171**	**0.5940**		**2,337.5658**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0327	1.1279	0.2759	3.3900e-003	0.0769	3.4400e-003	0.0803	0.0211	3.2900e-003	0.0244		372.0993	372.0993	0.0329		372.9211
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	0.0450	0.0292	0.3448	1.0600e-003	0.1068	7.4000e-004	0.1075	0.0283	6.8000e-004	0.0290		105.8773	105.8773	3.0200e-003		105.9529
Total	**0.0776**	**1.1571**	**0.6207**	**4.4500e-003**	**0.1837**	**4.1800e-003**	**0.1879**	**0.0494**	**3.9700e-003**	**0.0534**		**477.9766**	**477.9766**	**0.0359**		**478.8739**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.8183	0.0000	5.8183	2.9565	0.0000	2.9565			0.0000			0.0000
Off-Road	1.5558	17.4203	7.5605	0.0172		0.7654	0.7654		0.7041	0.7041		1,666.5174	1,666.5174	0.5390		1,679.9920
Total	**1.5558**	**17.4203**	**7.5605**	**0.0172**	**5.8183**	**0.7654**	**6.5837**	**2.9565**	**0.7041**	**3.6607**		**1,666.5174**	**1,666.5174**	**0.5390**		**1,679.9920**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1237	4.2722	1.0452	0.0129	0.2912	0.0130	0.3043	0.0798	0.0125	0.0923		1,409.4672	1,409.4672	0.1245		1,412.5798
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	0.0277	0.0180	0.2122	6.5000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		65.1553	65.1553	1.8600e-003		65.2018
Total	**0.1514**	**4.2902**	**1.2574**	**0.0135**	**0.3570**	**0.0135**	**0.3704**	**0.0972**	**0.0129**	**0.1101**		**1,474.6224**	**1,474.6224**	**0.1264**		**1,477.7815**

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					2.2691	0.0000	2.2691	1.1531	0.0000	1.1531			0.0000			0.0000
Off-Road	1.5558	17.4203	7.5605	0.0172		0.7654	0.7654		0.7041	0.7041	0.0000	1,666.5174	1,666.5174	0.5390		1,679.9920
Total	**1.5558**	**17.4203**	**7.5605**	**0.0172**	**2.2691**	**0.7654**	**3.0345**	**1.1531**	**0.7041**	**1.8572**	**0.0000**	**1,666.5174**	**1,666.5174**	**0.5390**		**1,679.9920**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1237	4.2722	1.0452	0.0129	0.2912	0.0130	0.3043	0.0798	0.0125	0.0923		1,409.4672	1,409.4672	0.1245		1,412.5798
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	0.0277	0.0180	0.2122	6.5000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		65.1553	65.1553	1.8600e-003		65.2018
Total	**0.1514**	**4.2902**	**1.2574**	**0.0135**	**0.3570**	**0.0135**	**0.3704**	**0.0972**	**0.0129**	**0.1101**		**1,474.6224**	**1,474.6224**	**0.1264**		**1,477.7815**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					11.7086	0.0000	11.7086	5.2553	0.0000	5.2553			0.0000			0.0000
Off-Road	4.2403	47.6361	24.7729	0.0547		2.0182	2.0182		1.8574	1.8574		5,288.1844	5,288.1844	1.7037		5,330.7764
Total	**4.2403**	**47.6361**	**24.7729**	**0.0547**	**11.7086**	**2.0182**	**13.7268**	**5.2553**	**1.8574**	**7.1127**		**5,288.1844**	**5,288.1844**	**1.7037**		**5,330.7764**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1603	5.5368	1.3545	0.0167	0.3774	0.0169	0.3943	0.1034	0.0162	0.1196		1,826.6694	1,826.6694	0.1614		1,830.7034
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	0.0796	0.0517	0.6101	1.8800e-003	0.1889	1.3100e-003	0.1902	0.0501	1.2000e-003	0.0513		187.3214	187.3214	5.3500e-003		187.4551
Total	**0.2399**	**5.5885**	**1.9646**	**0.0185**	**0.5664**	**0.0182**	**0.5846**	**0.1536**	**0.0174**	**0.1709**		**2,013.9908**	**2,013.9908**	**0.1667**		**2,018.1585**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.5664	0.0000	4.5664	2.0496	0.0000	2.0496			0.0000			0.0000
Off-Road	4.2403	47.6361	24.7729	0.0547		2.0182	2.0182		1.8574	1.8574	0.0000	5,288.1844	5,288.1844	1.7037		5,330.7764
Total	**4.2403**	**47.6361**	**24.7729**	**0.0547**	**4.5664**	**2.0182**	**6.5845**	**2.0496**	**1.8574**	**3.9070**	**0.0000**	**5,288.1844**	**5,288.1844**	**1.7037**		**5,330.7764**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1603	5.5368	1.3545	0.0167	0.3774	0.0169	0.3943	0.1034	0.0162	0.1196		1,826.6694	1,826.6694	0.1614		1,830.7034
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	0.0796	0.0517	0.6101	1.8800e-003	0.1889	1.3100e-003	0.1902	0.0501	1.2000e-003	0.0513		187.3214	187.3214	5.3500e-003		187.4551
Total	**0.2399**	**5.5885**	**1.9646**	**0.0185**	**0.5664**	**0.0182**	**0.5846**	**0.1536**	**0.0174**	**0.1709**		**2,013.9908**	**2,013.9908**	**0.1667**		**2,018.1585**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517
Total	**1.8125**	**13.6361**	**12.8994**	**0.0221**		**0.6843**	**0.6843**		**0.6608**	**0.6608**		**2,001.2200**	**2,001.2200**	**0.3573**		**2,010.1517**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0363	1.2220	0.3114	3.2500e-003	0.0812	2.5700e-003	0.0838	0.0234	2.4500e-003	0.0258		349.6223	349.6223	0.0250		350.2469
Worker	0.1107	0.0719	0.8488	2.6200e-003	0.2629	1.8200e-003	0.2647	0.0697	1.6700e-003	0.0714		260.6211	260.6211	7.4400e-003		260.8070
Total	**0.1470**	**1.2939**	**1.1602**	**5.8700e-003**	**0.3441**	**4.3900e-003**	**0.3485**	**0.0931**	**4.1200e-003**	**0.0972**		**610.2434**	**610.2434**	**0.0324**		**611.0539**

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	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517
Total	**1.8125**	**13.6361**	**12.8994**	**0.0221**		**0.6843**	**0.6843**		**0.6608**	**0.6608**	**0.0000**	**2,001.2200**	**2,001.2200**	**0.3573**		**2,010.1517**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0363	1.2220	0.3114	3.2500e-003	0.0812	2.5700e-003	0.0838	0.0234	2.4500e-003	0.0258		349.6223	349.6223	0.0250		350.2469
Worker	0.1107	0.0719	0.8488	2.6200e-003	0.2629	1.8200e-003	0.2647	0.0697	1.6700e-003	0.0714		260.6211	260.6211	7.4400e-003		260.8070
Total	**0.1470**	**1.2939**	**1.1602**	**5.8700e-003**	**0.3441**	**4.3900e-003**	**0.3485**	**0.0931**	**4.1200e-003**	**0.0972**		**610.2434**	**610.2434**	**0.0324**		**611.0539**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581
Total	**1.6487**	**12.5031**	**12.7264**	**0.0221**		**0.5889**	**0.5889**		**0.5689**	**0.5689**		**2,001.5429**	**2,001.5429**	**0.3486**		**2,010.2581**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0337	1.1548	0.2949	3.2100e-003	0.0812	2.2100e-003	0.0834	0.0234	2.1100e-003	0.0255		346.3365	346.3365	0.0242		346.9419
Worker	0.1046	0.0656	0.7893	2.5200e-003	0.2629	1.7800e-003	0.2647	0.0697	1.6400e-003	0.0714		251.0591	251.0591	6.8200e-003		251.2296
Total	**0.1384**	**1.2204**	**1.0842**	**5.7300e-003**	**0.3441**	**3.9900e-003**	**0.3481**	**0.0931**	**3.7500e-003**	**0.0969**		**597.3957**	**597.3957**	**0.0310**		**598.1715**

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	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689	0.0000	2,001.5429	2,001.5429	0.3486		2,010.2581
Total	**1.6487**	**12.5031**	**12.7264**	**0.0221**		**0.5889**	**0.5889**		**0.5689**	**0.5689**	**0.0000**	**2,001.5429**	**2,001.5429**	**0.3486**		**2,010.2581**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0337	1.1548	0.2949	3.2100e-003	0.0812	2.2100e-003	0.0834	0.0234	2.1100e-003	0.0255		346.3365	346.3365	0.0242		346.9419
Worker	0.1046	0.0656	0.7893	2.5200e-003	0.2629	1.7800e-003	0.2647	0.0697	1.6400e-003	0.0714		251.0591	251.0591	6.8200e-003		251.2296
Total	**0.1384**	**1.2204**	**1.0842**	**5.7300e-003**	**0.3441**	**3.9900e-003**	**0.3481**	**0.0931**	**3.7500e-003**	**0.0969**		**597.3957**	**597.3957**	**0.0310**		**598.1715**

3.6 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830		1,296.8664	1,296.8664	0.4111		1,307.1442
Paving	6.5200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7804**	**7.7422**	**8.8569**	**0.0135**		**0.4153**	**0.4153**		**0.3830**	**0.3830**		**1,296.8664**	**1,296.8664**	**0.4111**		**1,307.1442**

3.6 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0450	0.0292	0.3448	1.0600e-003	0.1068	7.4000e-004	0.1075	0.0283	6.8000e-004	0.0290		105.8773	105.8773	3.0200e-003		105.9529
Total	**0.0450**	**0.0292**	**0.3448**	**1.0600e-003**	**0.1068**	**7.4000e-004**	**0.1075**	**0.0283**	**6.8000e-004**	**0.0290**		**105.8773**	**105.8773**	**3.0200e-003**		**105.9529**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830	0.0000	1,296.8664	1,296.8664	0.4111		1,307.1442
Paving	6.5200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7804**	**7.7422**	**8.8569**	**0.0135**		**0.4153**	**0.4153**		**0.3830**	**0.3830**	**0.0000**	**1,296.8664**	**1,296.8664**	**0.4111**		**1,307.1442**

3.6 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0450	0.0292	0.3448	1.0600e-003	0.1068	7.4000e-004	0.1075	0.0283	6.8000e-004	0.0290		105.8773	105.8773	3.0200e-003		105.9529
Total	**0.0450**	**0.0292**	**0.3448**	**1.0600e-003**	**0.1068**	**7.4000e-004**	**0.1075**	**0.0283**	**6.8000e-004**	**0.0290**		**105.8773**	**105.8773**	**3.0200e-003**		**105.9529**

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6877	6.7738	8.8060	0.0135		0.3474	0.3474		0.3205	0.3205		1,297.3789	1,297.3789	0.4113		1,307.6608
Paving	6.5200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6942**	**6.7738**	**8.8060**	**0.0135**		**0.3474**	**0.3474**		**0.3205**	**0.3205**		**1,297.3789**	**1,297.3789**	**0.4113**		**1,307.6608**

3.6 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0425	0.0266	0.3206	1.0200e-003	0.1068	7.2000e-004	0.1075	0.0283	6.6000e-004	0.0290		101.9928	101.9928	2.7700e-003		102.0620
Total	**0.0425**	**0.0266**	**0.3206**	**1.0200e-003**	**0.1068**	**7.2000e-004**	**0.1075**	**0.0283**	**6.6000e-004**	**0.0290**		**101.9928**	**101.9928**	**2.7700e-003**		**102.0620**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6877	6.7738	8.8060	0.0135		0.3474	0.3474		0.3205	0.3205	0.0000	1,297.3789	1,297.3789	0.4113		1,307.6608
Paving	6.5200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6942**	**6.7738**	**8.8060**	**0.0135**		**0.3474**	**0.3474**		**0.3205**	**0.3205**	**0.0000**	**1,297.3789**	**1,297.3789**	**0.4113**		**1,307.6608**

3.6 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0425	0.0266	0.3206	1.0200e-003	0.1068	7.2000e-004	0.1075	0.0283	6.6000e-004	0.0290		101.9928	101.9928	2.7700e-003		102.0620
Total	**0.0425**	**0.0266**	**0.3206**	**1.0200e-003**	**0.1068**	**7.2000e-004**	**0.1075**	**0.0283**	**6.6000e-004**	**0.0290**		**101.9928**	**101.9928**	**2.7700e-003**		**102.0620**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.5076					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**34.7121**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.7 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0196	0.0123	0.1480	4.7000e-004	0.0493	3.3000e-004	0.0496	0.0131	3.1000e-004	0.0134		47.0736	47.0736	1.2800e-003		47.1056
Total	**0.0196**	**0.0123**	**0.1480**	**4.7000e-004**	**0.0493**	**3.3000e-004**	**0.0496**	**0.0131**	**3.1000e-004**	**0.0134**		**47.0736**	**47.0736**	**1.2800e-003**		**47.1056**

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	34.5076					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**34.7121**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.7 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0196	0.0123	0.1480	4.7000e-004	0.0493	3.3000e-004	0.0496	0.0131	3.1000e-004	0.0134		47.0736	47.0736	1.2800e-003		47.1056
Total	**0.0196**	**0.0123**	**0.1480**	**4.7000e-004**	**0.0493**	**3.3000e-004**	**0.0496**	**0.0131**	**3.1000e-004**	**0.0134**		**47.0736**	**47.0736**	**1.2800e-003**		**47.1056**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.2884	4.9006	12.2297	0.0403	3.3675	0.0332	3.4006	0.9000	0.0310	0.9310		4,099.3581	4,099.3581	0.2216		4,104.8973
Unmitigated	1.2884	4.9006	12.2297	0.0403	3.3675	0.0332	3.4006	0.9000	0.0310	0.9310		4,099.3581	4,099.3581	0.2216		4,104.8973

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Library	937.04	937.04	937.04	1,588,149	1,588,149
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	937.04	937.04	937.04	1,588,149	1,588,149

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
Library	9.50	7.30	7.30	52.00	43.00	5.00	44	44	12
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Library	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122
Other Non-Asphalt Surfaces	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122
Parking Lot	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive 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	3.9400e-003	0.0359	0.0301	2.2000e-004		2.7200e-003	2.7200e-003		2.7200e-003	2.7200e-003		43.0205	43.0205	8.2000e-004	7.9000e-004	43.2761
NaturalGas Unmitigated	4.4400e-003	0.0404	0.0339	2.4000e-004		3.0700e-003	3.0700e-003		3.0700e-003	3.0700e-003		48.4384	48.4384	9.3000e-004	8.9000e-004	48.7262

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					
Library	411.726	4.4400e-003	0.0404	0.0339	2.4000e-004		3.0700e-003	3.0700e-003		3.0700e-003	3.0700e-003		48.4384	48.4384	9.3000e-004	8.9000e-004	48.7262
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**4.4400e-003**	**0.0404**	**0.0339**	**2.4000e-004**		**3.0700e-003**	**3.0700e-003**		**3.0700e-003**	**3.0700e-003**		**48.4384**	**48.4384**	**9.3000e-004**	**8.9000e-004**	**48.7262**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Library	0.365674	3.9400e-003	0.0359	0.0301	2.2000e-004		2.7200e-003	2.7200e-003		2.7200e-003	2.7200e-003		43.0205	43.0205	8.2000e-004	7.9000e-004	43.2761
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**3.9400e-003**	**0.0359**	**0.0301**	**2.2000e-004**		**2.7200e-003**	**2.7200e-003**		**2.7200e-003**	**2.7200e-003**		**43.0205**	**43.0205**	**8.2000e-004**	**7.9000e-004**	**43.2761**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3957	6.0000e-005	7.0500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0151	0.0151	4.0000e-005		0.0161
Unmitigated	0.3957	6.0000e-005	7.0500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0151	0.0151	4.0000e-005		0.0161

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	0.0945					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3005					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.6000e-004	6.0000e-005	7.0500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0151	0.0151	4.0000e-005		0.0161
Total	**0.3957**	**6.0000e-005**	**7.0500e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0151**	**0.0151**	**4.0000e-005**		**0.0161**

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	0.0945					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3005					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.6000e-004	6.0000e-005	7.0500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0151	0.0151	4.0000e-005		0.0161
Total	**0.3957**	**6.0000e-005**	**7.0500e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0151**	**0.0151**	**4.0000e-005**		**0.0161**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Casa De Oro - Proposed Project

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Library	13.00	1000sqft	0.30	13,000.00	0
Other Non-Asphalt Surfaces	3.00	1000sqft	0.07	3,000.00	0
Other Non-Asphalt Surfaces	0.90	Acre	0.90	39,204.00	0
Parking Lot	52.00	Space	0.47	20,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2022
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Casa De Oro - Proposed Project - San Diego County, Winter

Project Characteristics -

Land Use - Land uses account for library, parking lot, access driveway, landscaping, and fencing

Construction Phase - Construction expected to last 12 - 14 months. Building construction and paving assumed to occur simultaneously

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - The Project Description notes that grading will employ scrapers, graders, water trucks (accounted for in Construction Trips), dozers and compaction equipment

Off-road Equipment -

Demolition - 885.7 tons of demolished debris accounted. Conservatively includes modular building, as this is only being removed, existing restaurant, 17,424 sf of asphalt, and existing building fronting Campo Road

Grading - Exported material includes removal of grass fields. Imported material per Project Description

Vehicle Trips - Trip generation per Proejct Traffic Impact Assessment

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Energy Mitigation - 2019 Building Energy Efficiency Standards 30% more efficient in nonresidential building than Standards built-in to CalEEMod

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	4.00	20.00
tblConstructionPhase	NumDays	10.00	189.00
tblConstructionPhase	NumDays	2.00	15.00
tblGrading	MaterialExported	0.00	1,452.00
tblGrading	MaterialImported	0.00	2,000.00
tblGrading	MaterialImported	0.00	2,000.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblVehicleTrips	ST_TR	46.55	72.08
tblVehicleTrips	SU_TR	25.49	72.08
tblVehicleTrips	WD_TR	56.24	72.08

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					
2021	4.4953	53.2787	26.7862	0.0728	12.2750	2.0367	14.3117	5.4089	1.8751	7.2840	0.0000	7,259.1399	7,259.1399	1.8754	0.0000	7,306.0247
2022	34.7344	20.5312	22.9018	0.0420	0.4509	0.9411	1.3920	0.1215	0.8939	1.0153	0.0000	3,967.6814	3,967.6814	0.7946	0.0000	3,987.5469
Maximum	**34.7344**	**53.2787**	**26.7862**	**0.0728**	**12.2750**	**2.0367**	**14.3117**	**5.4089**	**1.8751**	**7.2840**	**0.0000**	**7,259.1399**	**7,259.1399**	**1.8754**	**0.0000**	**7,306.0247**

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					
2021	4.4953	53.2787	26.7862	0.0728	5.1327	2.0367	7.1695	2.2031	1.8751	4.0782	0.0000	7,259.1399	7,259.1399	1.8754	0.0000	7,306.0247
2022	34.7344	20.5312	22.9018	0.0420	0.4509	0.9411	1.3920	0.1215	0.8939	1.0153	0.0000	3,967.6814	3,967.6814	0.7946	0.0000	3,987.5469
Maximum	**34.7344**	**53.2787**	**26.7862**	**0.0728**	**5.1327**	**2.0367**	**7.1695**	**2.2031**	**1.8751**	**4.0782**	**0.0000**	**7,259.1399**	**7,259.1399**	**1.8754**	**0.0000**	**7,306.0247**

Casa De Oro - Proposed Project - San Diego County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	56.12	0.00	45.48	57.97	0.00	38.63	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3957	6.0000e-005	7.0500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0151	0.0151	4.0000e-005		0.0161
Energy	4.4400e-003	0.0404	0.0339	2.4000e-004		3.0700e-003	3.0700e-003		3.0700e-003	3.0700e-003		48.4384	48.4384	9.3000e-004	8.9000e-004	48.7262
Mobile	1.2469	4.9859	12.3914	0.0382	3.3675	0.0335	3.4010	0.9000	0.0313	0.9313		3,883.3417	3,883.3417	0.2259		3,888.9895
Total	**1.6470**	**5.0263**	**12.4323**	**0.0384**	**3.3675**	**0.0366**	**3.4041**	**0.9000**	**0.0344**	**0.9344**		**3,931.7951**	**3,931.7951**	**0.2269**	**8.9000e-004**	**3,937.7318**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3957	6.0000e-005	7.0500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0151	0.0151	4.0000e-005		0.0161
Energy	3.9400e-003	0.0359	0.0301	2.2000e-004		2.7200e-003	2.7200e-003		2.7200e-003	2.7200e-003		43.0205	43.0205	8.2000e-004	7.9000e-004	43.2761
Mobile	1.2469	4.9859	12.3914	0.0382	3.3675	0.0335	3.4010	0.9000	0.0313	0.9313		3,883.3417	3,883.3417	0.2259		3,888.9895
Total	**1.6465**	**5.0218**	**12.4285**	**0.0384**	**3.3675**	**0.0363**	**3.4038**	**0.9000**	**0.0341**	**0.9340**		**3,926.3772**	**3,926.3772**	**0.2268**	**7.9000e-004**	**3,932.2817**

	ROG	NOx	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	**0.03**	**0.09**	**0.03**	**0.05**	**0.00**	**0.96**	**0.01**	**0.00**	**1.02**	**0.04**	**0.00**	**0.14**	**0.14**	**0.05**	**11.24**	**0.14**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/1/2021	3/26/2021	5	20	
2	Site Preparation	Site Preparation	3/27/2021	4/16/2021	5	15	
3	Grading	Grading	4/17/2021	5/14/2021	5	20	
4	Building Construction	Building Construction	5/15/2021	2/18/2022	5	200	
5	Paving	Paving	6/1/2021	2/18/2022	5	189	
6	Architectural Coating	Architectural Coating	2/19/2022	3/4/2022	5	10	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 50

Acres of Paving: 1.44

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 19,500; Non-Residential Outdoor: 6,500; Striped Parking Area: 3,780 (Architectural Coating – sqft)

OffRoad Equipment

Casa De Oro - Proposed Project - San Diego County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	2	6.00	187	0.41
Grading	Plate Compactors	1	7.00	8	0.43
Grading	Rollers	1	7.00	80	0.38
Grading	Rubber Tired Dozers	2	6.00	247	0.40
Grading	Scrapers	2	7.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	88.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	250.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	23.00	0.00	432.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	32.00	12.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	6.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.9595	0.0000	0.9595	0.1453	0.0000	0.1453			0.0000			0.0000
Off-Road	1.9930	19.6966	14.4925	0.0241		1.0409	1.0409		0.9715	0.9715		2,322.7171	2,322.7171	0.5940		2,337.5658
Total	**1.9930**	**19.6966**	**14.4925**	**0.0241**	**0.9595**	**1.0409**	**2.0004**	**0.1453**	**0.9715**	**1.1168**		**2,322.7171**	**2,322.7171**	**0.5940**		**2,337.5658**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0336	1.1376	0.2933	3.3300e-003	0.0769	3.5100e-003	0.0804	0.0211	3.3600e-003	0.0244		365.6705	365.6705	0.0340		366.5192
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	0.0510	0.0328	0.3241	1.0000e-003	0.1068	7.4000e-004	0.1075	0.0283	6.8000e-004	0.0290		99.3912	99.3912	2.8600e-003		99.4626
Total	**0.0846**	**1.1704**	**0.6174**	**4.3300e-003**	**0.1837**	**4.2500e-003**	**0.1879**	**0.0494**	**4.0400e-003**	**0.0534**		**465.0616**	**465.0616**	**0.0368**		**465.9818**

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					0.3742	0.0000	0.3742	0.0567	0.0000	0.0567			0.0000			0.0000
Off-Road	1.9930	19.6966	14.4925	0.0241		1.0409	1.0409		0.9715	0.9715	0.0000	2,322.7171	2,322.7171	0.5940		2,337.5658
Total	**1.9930**	**19.6966**	**14.4925**	**0.0241**	**0.3742**	**1.0409**	**1.4151**	**0.0567**	**0.9715**	**1.0281**	**0.0000**	**2,322.7171**	**2,322.7171**	**0.5940**		**2,337.5658**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0336	1.1376	0.2933	3.3300e-003	0.0769	3.5100e-003	0.0804	0.0211	3.3600e-003	0.0244		365.6705	365.6705	0.0340		366.5192
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	0.0510	0.0328	0.3241	1.0000e-003	0.1068	7.4000e-004	0.1075	0.0283	6.8000e-004	0.0290		99.3912	99.3912	2.8600e-003		99.4626
Total	**0.0846**	**1.1704**	**0.6174**	**4.3300e-003**	**0.1837**	**4.2500e-003**	**0.1879**	**0.0494**	**4.0400e-003**	**0.0534**		**465.0616**	**465.0616**	**0.0368**		**465.9818**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.8183	0.0000	5.8183	2.9565	0.0000	2.9565			0.0000			0.0000
Off-Road	1.5558	17.4203	7.5605	0.0172		0.7654	0.7654		0.7041	0.7041		1,666.5174	1,666.5174	0.5390		1,679.9920
Total	**1.5558**	**17.4203**	**7.5605**	**0.0172**	**5.8183**	**0.7654**	**6.5837**	**2.9565**	**0.7041**	**3.6607**		**1,666.5174**	**1,666.5174**	**0.5390**		**1,679.9920**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1271	4.3091	1.1110	0.0126	0.2912	0.0133	0.3045	0.0798	0.0127	0.0926		1,385.1154	1,385.1154	0.1286		1,388.3303
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	0.0314	0.0202	0.1995	6.1000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		61.1638	61.1638	1.7600e-003		61.2077
Total	**0.1585**	**4.3293**	**1.3104**	**0.0132**	**0.3570**	**0.0138**	**0.3707**	**0.0972**	**0.0132**	**0.1104**		**1,446.2792**	**1,446.2792**	**0.1304**		**1,449.5380**

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					2.2691	0.0000	2.2691	1.1531	0.0000	1.1531			0.0000			0.0000
Off-Road	1.5558	17.4203	7.5605	0.0172		0.7654	0.7654		0.7041	0.7041	0.0000	1,666.5174	1,666.5174	0.5390		1,679.9920
Total	**1.5558**	**17.4203**	**7.5605**	**0.0172**	**2.2691**	**0.7654**	**3.0345**	**1.1531**	**0.7041**	**1.8572**	**0.0000**	**1,666.5174**	**1,666.5174**	**0.5390**		**1,679.9920**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1271	4.3091	1.1110	0.0126	0.2912	0.0133	0.3045	0.0798	0.0127	0.0926		1,385.1154	1,385.1154	0.1286		1,388.3303
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	0.0314	0.0202	0.1995	6.1000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		61.1638	61.1638	1.7600e-003		61.2077
Total	**0.1585**	**4.3293**	**1.3104**	**0.0132**	**0.3570**	**0.0138**	**0.3707**	**0.0972**	**0.0132**	**0.1104**		**1,446.2792**	**1,446.2792**	**0.1304**		**1,449.5380**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					11.7086	0.0000	11.7086	5.2553	0.0000	5.2553			0.0000			0.0000
Off-Road	4.2403	47.6361	24.7729	0.0547		2.0182	2.0182		1.8574	1.8574		5,288.1844	5,288.1844	1.7037		5,330.7764
Total	**4.2403**	**47.6361**	**24.7729**	**0.0547**	**11.7086**	**2.0182**	**13.7268**	**5.2553**	**1.8574**	**7.1127**		**5,288.1844**	**5,288.1844**	**1.7037**		**5,330.7764**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1648	5.5846	1.4398	0.0164	0.3774	0.0173	0.3947	0.1034	0.0165	0.1199		1,795.1095	1,795.1095	0.1667		1,799.2760
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	0.0902	0.0580	0.5735	1.7600e-003	0.1889	1.3100e-003	0.1902	0.0501	1.2000e-003	0.0513		175.8459	175.8459	5.0500e-003		175.9722
Total	**0.2550**	**5.6426**	**2.0133**	**0.0181**	**0.5664**	**0.0186**	**0.5849**	**0.1536**	**0.0177**	**0.1713**		**1,970.9555**	**1,970.9555**	**0.1717**		**1,975.2483**

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					4.5664	0.0000	4.5664	2.0496	0.0000	2.0496			0.0000			0.0000
Off-Road	4.2403	47.6361	24.7729	0.0547		2.0182	2.0182		1.8574	1.8574	0.0000	5,288.1844	5,288.1844	1.7037		5,330.7764
Total	**4.2403**	**47.6361**	**24.7729**	**0.0547**	**4.5664**	**2.0182**	**6.5845**	**2.0496**	**1.8574**	**3.9070**	**0.0000**	**5,288.1844**	**5,288.1844**	**1.7037**		**5,330.7764**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1648	5.5846	1.4398	0.0164	0.3774	0.0173	0.3947	0.1034	0.0165	0.1199		1,795.1095	1,795.1095	0.1667		1,799.2760
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	0.0902	0.0580	0.5735	1.7600e-003	0.1889	1.3100e-003	0.1902	0.0501	1.2000e-003	0.0513		175.8459	175.8459	5.0500e-003		175.9722
Total	**0.2550**	**5.6426**	**2.0133**	**0.0181**	**0.5664**	**0.0186**	**0.5849**	**0.1536**	**0.0177**	**0.1713**		**1,970.9555**	**1,970.9555**	**0.1717**		**1,975.2483**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517
Total	**1.8125**	**13.6361**	**12.8994**	**0.0221**		**0.6843**	**0.6843**		**0.6608**	**0.6608**		**2,001.2200**	**2,001.2200**	**0.3573**		**2,010.1517**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0383	1.2187	0.3467	3.1700e-003	0.0812	2.6700e-003	0.0839	0.0234	2.5500e-003	0.0259		340.5832	340.5832	0.0265		341.2465
Worker	0.1255	0.0807	0.7978	2.4500e-003	0.2629	1.8200e-003	0.2647	0.0697	1.6700e-003	0.0714		244.6552	244.6552	7.0300e-003		244.8310
Total	**0.1638**	**1.2994**	**1.1446**	**5.6200e-003**	**0.3441**	**4.4900e-003**	**0.3486**	**0.0931**	**4.2200e-003**	**0.0973**		**585.2384**	**585.2384**	**0.0336**		**586.0774**

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	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517
Total	**1.8125**	**13.6361**	**12.8994**	**0.0221**		**0.6843**	**0.6843**		**0.6608**	**0.6608**	**0.0000**	**2,001.2200**	**2,001.2200**	**0.3573**		**2,010.1517**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0383	1.2187	0.3467	3.1700e-003	0.0812	2.6700e-003	0.0839	0.0234	2.5500e-003	0.0259		340.5832	340.5832	0.0265		341.2465
Worker	0.1255	0.0807	0.7978	2.4500e-003	0.2629	1.8200e-003	0.2647	0.0697	1.6700e-003	0.0714		244.6552	244.6552	7.0300e-003		244.8310
Total	**0.1638**	**1.2994**	**1.1446**	**5.6200e-003**	**0.3441**	**4.4900e-003**	**0.3486**	**0.0931**	**4.2200e-003**	**0.0973**		**585.2384**	**585.2384**	**0.0336**		**586.0774**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581
Total	**1.6487**	**12.5031**	**12.7264**	**0.0221**		**0.5889**	**0.5889**		**0.5689**	**0.5689**		**2,001.5429**	**2,001.5429**	**0.3486**		**2,010.2581**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0356	1.1509	0.3283	3.1300e-003	0.0812	2.3000e-003	0.0835	0.0234	2.2000e-003	0.0256		337.3231	337.3231	0.0257		337.9653
Worker	0.1190	0.0736	0.7403	2.3600e-003	0.2629	1.7800e-003	0.2647	0.0697	1.6400e-003	0.0714		235.6882	235.6882	6.4400e-003		235.8491
Total	**0.1545**	**1.2245**	**1.0686**	**5.4900e-003**	**0.3441**	**4.0800e-003**	**0.3482**	**0.0931**	**3.8400e-003**	**0.0970**		**573.0113**	**573.0113**	**0.0321**		**573.8143**

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	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689	0.0000	2,001.5429	2,001.5429	0.3486		2,010.2581
Total	**1.6487**	**12.5031**	**12.7264**	**0.0221**		**0.5889**	**0.5889**		**0.5689**	**0.5689**	**0.0000**	**2,001.5429**	**2,001.5429**	**0.3486**		**2,010.2581**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0356	1.1509	0.3283	3.1300e-003	0.0812	2.3000e-003	0.0835	0.0234	2.2000e-003	0.0256		337.3231	337.3231	0.0257		337.9653
Worker	0.1190	0.0736	0.7403	2.3600e-003	0.2629	1.7800e-003	0.2647	0.0697	1.6400e-003	0.0714		235.6882	235.6882	6.4400e-003		235.8491
Total	**0.1545**	**1.2245**	**1.0686**	**5.4900e-003**	**0.3441**	**4.0800e-003**	**0.3482**	**0.0931**	**3.8400e-003**	**0.0970**		**573.0113**	**573.0113**	**0.0321**		**573.8143**

3.6 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830		1,296.8664	1,296.8664	0.4111		1,307.1442
Paving	6.5200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7804**	**7.7422**	**8.8569**	**0.0135**		**0.4153**	**0.4153**		**0.3830**	**0.3830**		**1,296.8664**	**1,296.8664**	**0.4111**		**1,307.1442**

3.6 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0510	0.0328	0.3241	1.0000e-003	0.1068	7.4000e-004	0.1075	0.0283	6.8000e-004	0.0290		99.3912	99.3912	2.8600e-003		99.4626
Total	**0.0510**	**0.0328**	**0.3241**	**1.0000e-003**	**0.1068**	**7.4000e-004**	**0.1075**	**0.0283**	**6.8000e-004**	**0.0290**		**99.3912**	**99.3912**	**2.8600e-003**		**99.4626**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830	0.0000	1,296.8664	1,296.8664	0.4111		1,307.1442
Paving	6.5200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7804**	**7.7422**	**8.8569**	**0.0135**		**0.4153**	**0.4153**		**0.3830**	**0.3830**	**0.0000**	**1,296.8664**	**1,296.8664**	**0.4111**		**1,307.1442**

3.6 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0510	0.0328	0.3241	1.0000e-003	0.1068	7.4000e-004	0.1075	0.0283	6.8000e-004	0.0290		99.3912	99.3912	2.8600e-003		99.4626
Total	**0.0510**	**0.0328**	**0.3241**	**1.0000e-003**	**0.1068**	**7.4000e-004**	**0.1075**	**0.0283**	**6.8000e-004**	**0.0290**		**99.3912**	**99.3912**	**2.8600e-003**		**99.4626**

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6877	6.7738	8.8060	0.0135		0.3474	0.3474		0.3205	0.3205		1,297.3789	1,297.3789	0.4113		1,307.6608
Paving	6.5200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6942**	**6.7738**	**8.8060**	**0.0135**		**0.3474**	**0.3474**		**0.3205**	**0.3205**		**1,297.3789**	**1,297.3789**	**0.4113**		**1,307.6608**

3.6 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0483	0.0299	0.3008	9.6000e-004	0.1068	7.2000e-004	0.1075	0.0283	6.6000e-004	0.0290		95.7483	95.7483	2.6100e-003		95.8137
Total	**0.0483**	**0.0299**	**0.3008**	**9.6000e-004**	**0.1068**	**7.2000e-004**	**0.1075**	**0.0283**	**6.6000e-004**	**0.0290**		**95.7483**	**95.7483**	**2.6100e-003**		**95.8137**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6877	6.7738	8.8060	0.0135		0.3474	0.3474		0.3205	0.3205	0.0000	1,297.3789	1,297.3789	0.4113		1,307.6608
Paving	6.5200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6942**	**6.7738**	**8.8060**	**0.0135**		**0.3474**	**0.3474**		**0.3205**	**0.3205**	**0.0000**	**1,297.3789**	**1,297.3789**	**0.4113**		**1,307.6608**

3.6 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0483	0.0299	0.3008	9.6000e-004	0.1068	7.2000e-004	0.1075	0.0283	6.6000e-004	0.0290		95.7483	95.7483	2.6100e-003		95.8137
Total	**0.0483**	**0.0299**	**0.3008**	**9.6000e-004**	**0.1068**	**7.2000e-004**	**0.1075**	**0.0283**	**6.6000e-004**	**0.0290**		**95.7483**	**95.7483**	**2.6100e-003**		**95.8137**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.5076					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**34.7121**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.7 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0223	0.0138	0.1388	4.4000e-004	0.0493	3.3000e-004	0.0496	0.0131	3.1000e-004	0.0134		44.1915	44.1915	1.2100e-003		44.2217
Total	**0.0223**	**0.0138**	**0.1388**	**4.4000e-004**	**0.0493**	**3.3000e-004**	**0.0496**	**0.0131**	**3.1000e-004**	**0.0134**		**44.1915**	**44.1915**	**1.2100e-003**		**44.2217**

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	34.5076					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**34.7121**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.7 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0223	0.0138	0.1388	4.4000e-004	0.0493	3.3000e-004	0.0496	0.0131	3.1000e-004	0.0134		44.1915	44.1915	1.2100e-003		44.2217
Total	**0.0223**	**0.0138**	**0.1388**	**4.4000e-004**	**0.0493**	**3.3000e-004**	**0.0496**	**0.0131**	**3.1000e-004**	**0.0134**		**44.1915**	**44.1915**	**1.2100e-003**		**44.2217**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.2469	4.9859	12.3914	0.0382	3.3675	0.0335	3.4010	0.9000	0.0313	0.9313		3,883.3417	3,883.3417	0.2259		3,888.9895
Unmitigated	1.2469	4.9859	12.3914	0.0382	3.3675	0.0335	3.4010	0.9000	0.0313	0.9313		3,883.3417	3,883.3417	0.2259		3,888.9895

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Library	937.04	937.04	937.04	1,588,149	1,588,149
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	937.04	937.04	937.04	1,588,149	1,588,149

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
Library	9.50	7.30	7.30	52.00	43.00	5.00	44	44	12
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Library	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122
Other Non-Asphalt Surfaces	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122
Parking Lot	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive 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	3.9400e-003	0.0359	0.0301	2.2000e-004		2.7200e-003	2.7200e-003		2.7200e-003	2.7200e-003		43.0205	43.0205	8.2000e-004	7.9000e-004	43.2761
NaturalGas Unmitigated	4.4400e-003	0.0404	0.0339	2.4000e-004		3.0700e-003	3.0700e-003		3.0700e-003	3.0700e-003		48.4384	48.4384	9.3000e-004	8.9000e-004	48.7262

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					
Library	411.726	4.4400e-003	0.0404	0.0339	2.4000e-004		3.0700e-003	3.0700e-003		3.0700e-003	3.0700e-003		48.4384	48.4384	9.3000e-004	8.9000e-004	48.7262
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**4.4400e-003**	**0.0404**	**0.0339**	**2.4000e-004**		**3.0700e-003**	**3.0700e-003**		**3.0700e-003**	**3.0700e-003**		**48.4384**	**48.4384**	**9.3000e-004**	**8.9000e-004**	**48.7262**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Library	0.365674	3.9400e-003	0.0359	0.0301	2.2000e-004		2.7200e-003	2.7200e-003		2.7200e-003	2.7200e-003		43.0205	43.0205	8.2000e-004	7.9000e-004	43.2761
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**3.9400e-003**	**0.0359**	**0.0301**	**2.2000e-004**		**2.7200e-003**	**2.7200e-003**		**2.7200e-003**	**2.7200e-003**		**43.0205**	**43.0205**	**8.2000e-004**	**7.9000e-004**	**43.2761**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3957	6.0000e-005	7.0500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0151	0.0151	4.0000e-005		0.0161
Unmitigated	0.3957	6.0000e-005	7.0500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0151	0.0151	4.0000e-005		0.0161

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	0.0945					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3005					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.6000e-004	6.0000e-005	7.0500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0151	0.0151	4.0000e-005		0.0161
Total	**0.3957**	**6.0000e-005**	**7.0500e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0151**	**0.0151**	**4.0000e-005**		**0.0161**

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	0.0945					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3005					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.6000e-004	6.0000e-005	7.0500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0151	0.0151	4.0000e-005		0.0161
Total	**0.3957**	**6.0000e-005**	**7.0500e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0151**	**0.0151**	**4.0000e-005**		**0.0161**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Casa de Oro - Existing Baseline

San Diego County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High Turnover (Sit Down Restaurant)	2.31	1000sqft	0.05	2,310.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2020
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction this model

Vehicle Trips - Trip Generation per Traffic Impact Assessment

Energy Use -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	0.00
tblConstructionPhase	PhaseEndDate	3/10/2021	3/3/2021
tblVehicleTrips	ST_TR	158.37	177.48
tblVehicleTrips	SU_TR	131.84	177.48
tblVehicleTrips	WD_TR	127.15	177.48

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					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0941	0.0000	0.0000	0.0941	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0941**	**0.0000**	**0.0000**	**0.0941**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0941	0.0000	0.0000	0.0941	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0941**	**0.0000**	**0.0000**	**0.0941**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	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**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0641	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.1000e-004	5.1000e-004	0.0000		5.4000e-004
Energy	0.0121	0.1097	0.0921	6.6000e-004		8.3300e-003	8.3300e-003		8.3300e-003	8.3300e-003		131.5788	131.5788	2.5200e-003	2.4100e-003	132.3607
Mobile	0.5895	2.0558	4.7732	0.0134	1.0087	0.0134	1.0221	0.2696	0.0126	0.2822		1,356.8311	1,356.8311	0.0833		1,358.9141
Total	**0.6656**	**2.1655**	**4.8656**	**0.0140**	**1.0087**	**0.0217**	**1.0305**	**0.2696**	**0.0209**	**0.2905**		**1,488.4104**	**1,488.4104**	**0.0858**	**2.4100e-003**	**1,491.2754**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0641	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.1000e-004	5.1000e-004	0.0000		5.4000e-004
Energy	0.0121	0.1097	0.0921	6.6000e-004		8.3300e-003	8.3300e-003		8.3300e-003	8.3300e-003		131.5788	131.5788	2.5200e-003	2.4100e-003	132.3607
Mobile	0.5895	2.0558	4.7732	0.0134	1.0087	0.0134	1.0221	0.2696	0.0126	0.2822		1,356.8311	1,356.8311	0.0833		1,358.9141
Total	**0.6656**	**2.1655**	**4.8656**	**0.0140**	**1.0087**	**0.0217**	**1.0305**	**0.2696**	**0.0209**	**0.2905**		**1,488.4104**	**1,488.4104**	**0.0858**	**2.4100e-003**	**1,491.2754**

	ROG	NOx	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	Architectural Coating	Architectural Coating	3/4/2021	3/3/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 3,465; Non-Residential Outdoor: 1,155; Striped Parking Area: 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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Architectural Coating - 2021

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction 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	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.5895	2.0558	4.7732	0.0134	1.0087	0.0134	1.0221	0.2696	0.0126	0.2822		1,356.8311	1,356.8311	0.0833		1,358.9141
Unmitigated	0.5895	2.0558	4.7732	0.0134	1.0087	0.0134	1.0221	0.2696	0.0126	0.2822		1,356.8311	1,356.8311	0.0833		1,358.9141

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
High Turnover (Sit Down Restaurant)	409.98	409.98	409.98	475,684	475,684
Total	409.98	409.98	409.98	475,684	475,684

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
High Turnover (Sit Down	9.50	7.30	7.30	8.50	72.50	19.00	37	20	43

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
High Turnover (Sit Down Restaurant)	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0121	0.1097	0.0921	6.6000e-004		8.3300e-003	8.3300e-003		8.3300e-003	8.3300e-003		131.5788	131.5788	2.5200e-003	2.4100e-003	132.3607
NaturalGas Unmitigated	0.0121	0.1097	0.0921	6.6000e-004		8.3300e-003	8.3300e-003		8.3300e-003	8.3300e-003		131.5788	131.5788	2.5200e-003	2.4100e-003	132.3607

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					
High Turnover (Sit Down Restaurant)	1118.42	0.0121	0.1097	0.0921	6.6000e-004		8.3300e-003	8.3300e-003		8.3300e-003	8.3300e-003		131.5788	131.5788	2.5200e-003	2.4100e-003	132.3607
Total		**0.0121**	**0.1097**	**0.0921**	**6.6000e-004**		**8.3300e-003**	**8.3300e-003**		**8.3300e-003**	**8.3300e-003**		**131.5788**	**131.5788**	**2.5200e-003**	**2.4100e-003**	**132.3607**

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					
High Turnover (Sit Down Restaurant)	1.11842	0.0121	0.1097	0.0921	6.6000e-004		8.3300e-003	8.3300e-003		8.3300e-003	8.3300e-003		131.5788	131.5788	2.5200e-003	2.4100e-003	132.3607
Total		**0.0121**	**0.1097**	**0.0921**	**6.6000e-004**		**8.3300e-003**	**8.3300e-003**		**8.3300e-003**	**8.3300e-003**		**131.5788**	**131.5788**	**2.5200e-003**	**2.4100e-003**	**132.3607**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0641	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.1000e-004	5.1000e-004	0.0000		5.4000e-004
Unmitigated	0.0641	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.1000e-004	5.1000e-004	0.0000		5.4000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0147					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0494					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.1000e-004	5.1000e-004	0.0000		5.4000e-004
Total	**0.0641**	**0.0000**	**2.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**5.1000e-004**	**5.1000e-004**	**0.0000**		**5.4000e-004**

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	0.0147					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0494					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.1000e-004	5.1000e-004	0.0000		5.4000e-004
Total	**0.0641**	**0.0000**	**2.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**5.1000e-004**	**5.1000e-004**	**0.0000**		**5.4000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Casa de Oro - Existing Baseline

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High Turnover (Sit Down Restaurant)	2.31	1000sqft	0.05	2,310.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2020
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction this model

Vehicle Trips - Trip Generation per Traffic Impact Assessment

Energy Use -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	0.00
tblConstructionPhase	PhaseEndDate	3/10/2021	3/3/2021
tblVehicleTrips	ST_TR	158.37	177.48
tblVehicleTrips	SU_TR	131.84	177.48
tblVehicleTrips	WD_TR	127.15	177.48

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					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0941	0.0000	0.0000	0.0941	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0941**	**0.0000**	**0.0000**	**0.0941**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0941	0.0000	0.0000	0.0941	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0941**	**0.0000**	**0.0000**	**0.0941**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	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**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0641	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.1000e-004	5.1000e-004	0.0000		5.4000e-004
Energy	0.0121	0.1097	0.0921	6.6000e-004		8.3300e-003	8.3300e-003		8.3300e-003	8.3300e-003		131.5788	131.5788	2.5200e-003	2.4100e-003	132.3607
Mobile	0.5721	2.0845	5.0042	0.0126	1.0087	0.0136	1.0223	0.2696	0.0128	0.2824		1,283.3869	1,283.3869	0.0862		1,285.5408
Total	**0.6483**	**2.1941**	**5.0966**	**0.0133**	**1.0087**	**0.0219**	**1.0307**	**0.2696**	**0.0211**	**0.2907**		**1,414.9662**	**1,414.9662**	**0.0887**	**2.4100e-003**	**1,417.9020**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0641	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.1000e-004	5.1000e-004	0.0000		5.4000e-004
Energy	0.0121	0.1097	0.0921	6.6000e-004		8.3300e-003	8.3300e-003		8.3300e-003	8.3300e-003		131.5788	131.5788	2.5200e-003	2.4100e-003	132.3607
Mobile	0.5721	2.0845	5.0042	0.0126	1.0087	0.0136	1.0223	0.2696	0.0128	0.2824		1,283.3869	1,283.3869	0.0862		1,285.5408
Total	**0.6483**	**2.1941**	**5.0966**	**0.0133**	**1.0087**	**0.0219**	**1.0307**	**0.2696**	**0.0211**	**0.2907**		**1,414.9662**	**1,414.9662**	**0.0887**	**2.4100e-003**	**1,417.9020**

	ROG	NOx	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	Architectural Coating	Architectural Coating	3/4/2021	3/3/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 3,465; Non-Residential Outdoor: 1,155; Striped Parking Area: 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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Architectural Coating - 2021

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction 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	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.5721	2.0845	5.0042	0.0126	1.0087	0.0136	1.0223	0.2696	0.0128	0.2824		1,283.3869	1,283.3869	0.0862		1,285.5408
Unmitigated	0.5721	2.0845	5.0042	0.0126	1.0087	0.0136	1.0223	0.2696	0.0128	0.2824		1,283.3869	1,283.3869	0.0862		1,285.5408

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
High Turnover (Sit Down Restaurant)	409.98	409.98	409.98	475,684	475,684
Total	409.98	409.98	409.98	475,684	475,684

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
High Turnover (Sit Down	9.50	7.30	7.30	8.50	72.50	19.00	37	20	43

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
High Turnover (Sit Down Restaurant)	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0121	0.1097	0.0921	6.6000e-004		8.3300e-003	8.3300e-003		8.3300e-003	8.3300e-003		131.5788	131.5788	2.5200e-003	2.4100e-003	132.3607
NaturalGas Unmitigated	0.0121	0.1097	0.0921	6.6000e-004		8.3300e-003	8.3300e-003		8.3300e-003	8.3300e-003		131.5788	131.5788	2.5200e-003	2.4100e-003	132.3607

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					
High Turnover (Sit Down Restaurant)	1118.42	0.0121	0.1097	0.0921	6.6000e-004		8.3300e-003	8.3300e-003		8.3300e-003	8.3300e-003		131.5788	131.5788	2.5200e-003	2.4100e-003	132.3607
Total		**0.0121**	**0.1097**	**0.0921**	**6.6000e-004**		**8.3300e-003**	**8.3300e-003**		**8.3300e-003**	**8.3300e-003**		**131.5788**	**131.5788**	**2.5200e-003**	**2.4100e-003**	**132.3607**

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					
High Turnover (Sit Down Restaurant)	1.11842	0.0121	0.1097	0.0921	6.6000e-004		8.3300e-003	8.3300e-003		8.3300e-003	8.3300e-003		131.5788	131.5788	2.5200e-003	2.4100e-003	132.3607
Total		**0.0121**	**0.1097**	**0.0921**	**6.6000e-004**		**8.3300e-003**	**8.3300e-003**		**8.3300e-003**	**8.3300e-003**		**131.5788**	**131.5788**	**2.5200e-003**	**2.4100e-003**	**132.3607**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0641	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.1000e-004	5.1000e-004	0.0000		5.4000e-004
Unmitigated	0.0641	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.1000e-004	5.1000e-004	0.0000		5.4000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0147					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0494					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.1000e-004	5.1000e-004	0.0000		5.4000e-004
Total	**0.0641**	**0.0000**	**2.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**5.1000e-004**	**5.1000e-004**	**0.0000**		**5.4000e-004**

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	0.0147					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0494					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.1000e-004	5.1000e-004	0.0000		5.4000e-004
Total	**0.0641**	**0.0000**	**2.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**5.1000e-004**	**5.1000e-004**	**0.0000**		**5.4000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

ATTACHMENT A2

Construction Diesel Particulate Matter Health Risk Calculations and AERMOD Outputs

Casa de Oro
DPM Emission Rates
Construction

Casa de Oro - Construction
Emissions Calculations

Maximum ON-SITE Daily DPM **DPM**

On-Site	g/day	g/sec
On-Site Project Construction Activities	3.23E+01	3.74E-04

Maximum OFFSITE Daily DPM

Off-Site	g/day	g/sec
Off-Site Project Haul Trucks	1.23E-01	1.43E-06

Sources:
DPM Emission Factors for On-Site Construction Activities are derived from CalEEMod v. 2016.3.2 and include the combined Exhaust PM10 and Exhaust PM2.5 emissions
DPM Emission Factors for Off-Site Construction Haul Trucks are derived from CalEEMod v. 2016.3.2 and include the combined Exhaust PM10 and Exhaust PM2.5 emissions

Notations
Grams per second based on OEHHA's minimum years of exposure to caclucate health risk (9 years)

Annual On-Site

	2021	2022	2023	2024	2025	2026	2027	2028	2029	
Construction	0.255	0.032	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
										Total months
Months	*10*	*12*	*12*	*12*	*12*	*12*	*12*	*12*	*12*	106
Percentage	*9%*	*11%*	*11%*	*11%*	11%	11%	11%	11%	11%	100%
Weighted Total	0.0241	0.0036	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0277

Days **2332**
Hrs/Day **8**
Total Seconds **67,161,600**

Ton/Year: 0.0277
Gram/Sec 0.000374 onsite equipment

Annual Off-Site Haul Trucks

	2021	2022	2023	2024	2025	2026	2027	2028	2029	
Construction Haul Trucks	0.001	0.0001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
										Total months
Months	*10*	*12*	*12*	*12*	*12*	*12*	*12*	*12*	*12*	106
Percentage	*9%*	*11%*	*11%*	*11%*	11%	11%	11%	11%	11%	100%
Weighted Total	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001

Days **2332**
Hrs/Day **8**
Total Seconds **67,161,600**

Ton/Year: 0.0001
Gram/Sec 0.000001 haul trucks

Conversions:
1 ton = 907184.7 grams
1 year = 3.15E+07 seconds

Cancer Risk Calcuations at Highest Pollutant Concentration
School District Corporation Yard

Risk Calculations

1 Hour Avg Concentration: 0.425
Annual Avg Concentration: 0.0670

Cancer Risk

	3rd trimester	0<2 years	2<9 years	2<16 years	16<30 years	16<70 years
DOSEair = (Cair*(BR/BW)*A*EF*10^{-6})	1.6689E-05	5.03907E-05	3.9804E-05	3.44414E-05	1.54871E-05	1.34067E-05
Risk = DOSEair * CPF * ASF * ED/AT * FAH	1.78334E-07	4.71153E-06	3.10744E-06	3.39021E-06	5.152099E-07	4.46003E-07

		Risk	in one million
Cancer Risk:	9-year exposure	8.00E-06	**8.00**
			10 in one million

Threshold:	DOSEair		mg/kg-d	Dose through inhalation
	CPF	1.1	$(mg/kg/day)^{-1}$	Cancer Potency Factor for DPM
	BR/BW (3rd trimester)	361	L/kg bodyweight-day	Daily Breathing rate normalized to body weight
	BR/BW (0 < 2 years)	1090		
BR/BW	BR/BW (2 < 9 years)	861		
	BR/BW (2 < 16 years)	745		
	BR/BW (16 < 30 years)	335		
	BR/BW (16 < 70 years)	290		
	10^{-6}	1.00E-06		Micrograms to milligrams conversions, liters to cubic meters conversion
	Cair	0.067	ug/m^3	Concentration in air (ug/m^3), modeled annual average concentration
	A	1		Inhalation absorption factor
	EF	0.69	days/year	Exposure frequency (days/year) - 255 days of construction (factoring weekends & six major holidays)
	ED (3rd trimester)	0.08	years	Exposure duration (years) - Adjusted to reflect 8 hour work day
	ED (0 < 2 years)	0.7		
ED	ED (2 < 9 years)	2.3		
	ED (2 < 16, 16 < 30 years)	2.9		
	ED (16 - 70 years)	2.9		
	AT	70	years	Averaging time period over which exposure is averaged
ASF	ASF (3rd trimester - 2 years)	10		Age Sensitivity Factor
	ASF (2 - 16 years)	3		
	ASF (16 - 70 years)	1		
	FAH (3rd trimester - 2 years)	0.85		Fraction of time spent at home (unitless)
FAH	FAH (2 - 16 years)	0.72		
	FAH (16 - 70 years)	0.73		

Chronic Noncancer Hazard

Threshold: 1

Hazard Quotient = C_i/REL_i

HQ = **1.34E-02**

C_i 6.70E-02 Concentration (annual average)
REL_i 5 Reference Exposure Level

Acute NonCancer Hazard

Threshold: 1

Acute HQ = Maximum Hourly Concentration/Acute REL

Acute HQ = **3.53E-01**

Max Hourly 6.70E-02
Acute REL (Acrolein) 0.19

Cancer Risk Calcuations at
Spring Valley Middle School Ball Field

Risk Calculations

1 Hour Avg Concentration: 0.367
Annual Avg Concentration: 0.0240

Cancer Risk

	3rd trimester	0<2 years	2<9 years	2<16 years	16<30 years	16<70 years
DOSEair = (Cair*(BR/BW)*A*EF*10^{-6})	5.97816E-06	1.80504E-05	1.42582E-05	1.23372E-05	5.5476E-06	4.8024E-06
Risk = DOSEair * CPF * ASF * ED/AT * FAH	6.38809E-08	1.68771E-06	1.11311E-06	1.2144E-06	1.845528E-07	1.59762E-07

		Risk	in one million
Cancer Risk:	9-year exposure	2.86E-06	**2.86**
			10 in one million

Threshold:	DOSEair		mg/kg-d	Dose through inhalation
	CPF	1.1	$(mg/kg/day)^{-1}$	Cancer Potency Factor for DPM
	BR/BW (3rd trimester)	361	L/kg bodyweight-day	Daily Breathing rate normalized to body weight
	BR/BW (0 < 2 years)	1090		
BR/BW	BR/BW (2 < 9 years)	861		
	BR/BW (2 < 16 years)	745		
	BR/BW (16 < 30 years)	335		
	BR/BW (16 < 70 years)	290		
	10^{-6}	1.00E-06		Micrograms to milligrams conversions, liters to cubic meters conversion
	Cair	0.024	ug/m^3	Concentration in air (ug/m^3), modeled annual average concentration
	A	1		Inhalation absorption factor
	EF	0.69	days/year	Exposure frequency (days/year) - 255 days of construction (factoring weekends & six major holidays)
	ED (3rd trimester)	0.08	years	Exposure duration (years) - Adjusted to reflect 8 hour work day
	ED (0 < 2 years)	0.7		
ED	ED (2 < 9 years)	2.3		
	ED (2 < 16, 16 < 30 years)	2.9		
	ED (16 - 70 years)	2.9		
	AT	70	years	Averaging time period over which exposure is averaged
	ASF (3rd trimester - 2 years)	10		Age Sensitivity Factor
ASF	ASF (2 - 16 years)	3		
	ASF (16 - 70 years)	1		
	FAH (3rd trimester - 2 years)	0.85		Fraction of time spent at home (unitless)
FAH	FAH (2 - 16 years)	0.72		
	FAH (16 - 70 years)	0.73		

Chronic Noncancer Hazard

Threshold: 1

Hazard Quotient = C_i/REL_i

HQ = **4.80E-03**

C_i 2.40E-02 Concentration (annual average)
REL_i 5 Reference Exposure Level

Acute NonCancer Hazard

Threshold: 1

Acute HQ = Maximum Hourly Concentration/Acute REL

Acute HQ = **1.26E-01**

Max Hourly 2.40E-02
Acute REL (Acrolein) 0.19

Cancer Risk Calcuations at Adjacent Residences to Southwest

Risk Calculations

1 Hour Avg Concentration: 0.223
Annual Avg Concentration: 0.0150

Cancer Risk

	3rd trimester	0<2 years	2<9 years	2<16 years	16<30 years	16<70 years
DOSEair = (Cair*(BR/BW)*A*EF*10^{-6})	3.73635E-06	1.12815E-05	8.91135E-06	7.71075E-06	3.46725E-06	3.0015E-06
Risk = DOSEair * CPF * ASF * ED/AT * FAH	3.99256E-08	1.05482E-06	6.95696E-07	7.59002E-07	1.153455E-07	9.98513E-08

		Risk	in one million
Cancer Risk:	9-year exposure	1.79E-06	**1.79**
			10 in one million

Threshold:	DOSEair		mg/kg-d	Dose through inhalation
	CPF	1.1	$(mg/kg/day)^{-1}$	Cancer Potency Factor for DPM
BR/BW	BR/BW (3rd trimester)	361	L/kg bodyweight-day	Daily Breathing rate normalized to body weight
	BR/BW (0 < 2 years)	1090		
	BR/BW (2 < 9 years)	861		
	BR/BW (2 < 16 years)	745		
	BR/BW (16 < 30 years)	335		
	BR/BW (16 < 70 years)	290		
	10^{-6}	1.00E-06		Micrograms to milligrams conversions, liters to cubic meters conversion
	Cair	0.015	ug/m^3	Concentration in air (ug/m^3), modeled annual average concentration
	A	1		Inhalation absorption factor
	EF	0.69	days/year	Exposure frequency (days/year) - 255 days of construction (factoring weekends & six major holidays)
ED	ED (3rd trimester)	0.08	years	Exposure duration (years) - Adjusted to reflect 8 hour work day
	ED (0 < 2 years)	0.7		
	ED (2 < 9 years)	2.3		
	ED (2 < 16, 16 < 30 years)	2.9		
	ED (16 - 70 years)	2.9		
	AT	70	years	Averaging time period over which exposure is averaged
ASF	ASF (3rd trimester - 2 years)	10		Age Sensitivity Factor
	ASF (2 - 16 years)	3		
	ASF (16 - 70 years)	1		
FAH	FAH (3rd trimester - 2 years)	0.85		Fraction of time spent at home (unitless)
	FAH (2 - 16 years)	0.72		
	FAH (16 - 70 years)	0.73		

Chronic Noncancer Hazard

Threshold: 1

Hazard Quotient = C_i/REL_i

HQ = **3.00E-03**

C_i 1.50E-02 Concentration (annual average)
REL_i 5 Reference Exposure Level

Acute NonCancer Hazard

Threshold: 1

Acute HQ = Maximum Hourly Concentration/Acute REL

Acute HQ = **7.89E-02**

Max Hourly 1.50E-02
Acute REL (Acrolein) 0.19

Cancer Risk Calcuations at Tennis Courts Accross Campo Road

Risk Calculations

1 Hour Avg Concentration: 0.265
Annual Avg Concentration: 0.0091

Cancer Risk

	3rd trimester	0<2 years	2<9 years	2<16 years	16<30 years	16<70 years
DOSEair = (Cair*(BR/BW)*A*EF*10^{-6})	2.26672E-06	6.84411E-06	5.40622E-06	4.67786E-06	2.10347E-06	1.82091E-06
Risk = DOSEair * CPF * ASF * ED/AT * FAH	2.42215E-08	6.39924E-07	4.22056E-07	4.60461E-07	6.997627E-08	6.05765E-08

		Risk	in one million
Cancer Risk:	9-year exposure	1.09E-06	**1.09**
			10 in one million

Threshold:	DOSEair		mg/kg-d	Dose through inhalation
	CPF	1.1	$(mg/kg/day)^{-1}$	Cancer Potency Factor for DPM
	BR/BW (3rd trimester)	361	L/kg bodyweight-day	Daily Breathing rate normalized to body weight
	BR/BW (0 < 2 years)	1090		
BR/BW	BR/BW (2 < 9 years)	861		
	BR/BW (2 < 16 years)	745		
	BR/BW (16 < 30 years)	335		
	BR/BW (16 < 70 years)	290		
	10^{-6}	1.00E-06		Micrograms to milligrams conversions, liters to cubic meters conversion
	Cair	0.0091	ug/m^3	Concentration in air (ug/m^3), modeled annual average concentration
	A	1		Inhalation absorption factor
	EF	0.69	days/year	Exposure frequency (days/year) - 255 days of construction (factoring weekends & six major holidays)
	ED (3rd trimester)	0.08	years	Exposure duration (years) - Adjusted to reflect 8 hour work day
	ED (0 < 2 years)	0.7		
ED	ED (2 < 9 years)	2.3		
	ED (2 < 16, 16 < 30 years)	2.9		
	ED (16 - 70 years)	2.9		
	AT	70	years	Averaging time period over which exposure is averaged
	ASF (3rd trimester - 2 years)	10		Age Sensitivity Factor
ASF	ASF (2 - 16 years)	3		
	ASF (16 - 70 years)	1		
	FAH (3rd trimester - 2 years)	0.85		Fraction of time spent at home (unitless)
FAH	FAH (2 - 16 years)	0.72		
	FAH (16 - 70 years)	0.73		

Chronic Noncancer Hazard

Threshold: 1

Hazard Quotient = C_i/REL_i

HQ = **1.82E-03**

C_i 9.10E-03 Concentration (annual average)
REL_i 5 Reference Exposure Level

Acute NonCancer Hazard

Threshold: 1

Acute HQ = Maximum Hourly Concentration/Acute REL

Acute HQ = **4.79E-02**

Max Hourly 9.10E-03
Acute REL (Acrolein) 0.19

Cancer Risk Calcuations at Residences to the West

Risk Calculations

1 Hour Avg Concentration: 0.291
Annual Avg Concentration: 0.0127

Cancer Risk

	3rd trimester	0<2 years	2<9 years	2<16 years	16<30 years	16<70 years
DOSEair = (Cair*(BR/BW)*A*EF*10^{-6})	3.16344E-06	9.55167E-06	7.54494E-06	6.52844E-06	2.93561E-06	2.54127E-06
Risk = DOSEair * CPF * ASF * ED/AT * FAH	3.38036E-08	8.93081E-07	5.89023E-07	6.42622E-07	9.765919E-08	8.45408E-08

		Risk	in one million
Cancer Risk:	9-year exposure	1.52E-06	**1.52**
			10 in one million

Threshold:	DOSEair		mg/kg-d	Dose through inhalation
	CPF	1.1	$(mg/kg/day)^{-1}$	Cancer Potency Factor for DPM
BR/BW	BR/BW (3rd trimester)	361	L/kg bodyweight-day	Daily Breathing rate normalized to body weight
	BR/BW (0 < 2 years)	1090		
	BR/BW (2 < 9 years)	861		
	BR/BW (2 < 16 years)	745		
	BR/BW (16 < 30 years)	335		
	BR/BW (16 < 70 years)	290		
	10^{-6}	1.00E-06		Micrograms to milligrams conversions, liters to cubic meters conversion
	Cair	0.0127	ug/m^3	Concentration in air (ug/m^3), modeled annual average concentration
	A	1		Inhalation absorption factor
	EF	0.69	days/year	Exposure frequency (days/year) - 255 days of construction (factoring weekends & six major holidays)
ED	ED (3rd trimester)	0.08	years	Exposure duration (years) - Adjusted to reflect 8 hour work day
	ED (0 < 2 years)	0.7		
	ED (2 < 9 years)	2.3		
	ED (2 < 16, 16 < 30 years)	2.9		
	ED (16 - 70 years)	2.9		
	AT	70	years	Averaging time period over which exposure is averaged
ASF	ASF (3rd trimester - 2 years)	10		Age Sensitivity Factor
	ASF (2 - 16 years)	3		
	ASF (16 - 70 years)	1		
FAH	FAH (3rd trimester - 2 years)	0.85		Fraction of time spent at home (unitless)
	FAH (2 - 16 years)	0.72		
	FAH (16 - 70 years)	0.73		

Chronic Noncancer Hazard

Threshold: 1

Hazard Quotient = C_i/REL_i

HQ = **2.54E-03**

C_i 1.27E-02 Concentration (annual average)
REL_i 5 Reference Exposure Level

Acute NonCancer Hazard

Threshold: 1

Acute HQ = Maximum Hourly Concentration/Acute REL

Acute HQ = **6.68E-02**

Max Hourly 1.27E-02
Acute REL (Acrolein) 0.19

Cancer Risk Calcuations at Grass Field to Northwest

Risk Calculations

1 Hour Avg Concentration:	0.392
Annual Avg Concentration:	0.0183

Cancer Risk

	3rd trimester	0<2 years	2<9 years	2<16 years	16<30 years	16<70 years
DOSEair = (Cair*(BR/BW)*A*EF*10^{-6})	4.55835E-06	1.37634E-05	1.08718E-05	9.40712E-06	4.23005E-06	3.66183E-06
Risk = DOSEair * CPF * ASF * ED/AT * FAH	4.87092E-08	1.28688E-06	8.4875E-07	9.25983E-07	1.407215E-07	1.21819E-07

		Risk	in one million
Cancer Risk:	9-year exposure	2.18E-06	**2.18**
			10 in one million

Threshold:	DOSEair		mg/kg-d	Dose through inhalation
	CPF	1.1	$(mg/kg/day)^{-1}$	Cancer Potency Factor for DPM
BR/BW	BR/BW (3rd trimester)	361	L/kg bodyweight-day	Daily Breathing rate normalized to body weight
	BR/BW (0 < 2 years)	1090		
	BR/BW (2 < 9 years)	861		
	BR/BW (2 < 16 years)	745		
	BR/BW (16 < 30 years)	335		
	BR/BW (16 < 70 years)	290		
	10^{-6}	1.00E-06		Micrograms to milligrams conversions, liters to cubic meters conversion
	Cair	0.0183	ug/m^3	Concentration in air (ug/m^3), modeled annual average concentration
	A	1		Inhalation absorption factor
	EF	0.69	days/year	Exposure frequency (days/year) - 255 days of construction (factoring weekends & six major holidays)
ED	ED (3rd trimester)	0.08	years	Exposure duration (years) - Adjusted to reflect 8 hour work day
	ED (0 < 2 years)	0.7		
	ED (2 < 9 years)	2.3		
	ED (2 < 16, 16 < 30 years)	2.9		
	ED (16 - 70 years)	2.9		
	AT	70	years	Averaging time period over which exposure is averaged
ASF	ASF (3rd trimester - 2 years)	10		Age Sensitivity Factor
	ASF (2 - 16 years)	3		
	ASF (16 - 70 years)	1		
FAH	FAH (3rd trimester - 2 years)	0.85		Fraction of time spent at home (unitless)
	FAH (2 - 16 years)	0.72		
	FAH (16 - 70 years)	0.73		

Chronic Noncancer Hazard

Threshold: 1

Hazard Quotient = C_i/REL_i

HQ = **3.66E-03**

C_i	1.83E-02	Concentration (annual average)
REL_i	5	Reference Exposure Level

Acute NonCancer Hazard

Threshold: 1

Acute HQ = Maximum Hourly Concentration/Acute REL

Acute HQ = **9.63E-02**

Max Hourly	1.83E-02
Acute REL (Acrolein)	0.19

Control Pathway

Dispersion Options

Titles

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Dispersion Options

- [x] Regulatory Default
- [ ] Non-Default Options

Dispersion Coefficient

Urban

Population:
Name (Optional):
Roughness Length:

Output Type

- [x] Concentration
- [ ] Total Deposition (Dry & Wet)
- [ ] Dry Deposition
- [ ] Wet Deposition

Plume Depletion

- [ ] Dry Removal
- [ ] Wet Removal

Output Warnings

- [ ] No Output Warnings
- [ ] Non-fatal Warnings for Non-sequential Met Data

Pollutant / Averaging Time / Terrain Options

Pollutant Type

PM2.5

Averaging Time Options

Hours

1	2	3	4	6	8	12	24
■	☐	☐	☐	☐	☐	☐	■

- [ ] Month
- [ ] Period
- [x] Annual

Exponential Decay

Half-life of 4 hrs will be used

Terrain Height Options

- [ ] Flat
- [x] Elevated

SO: Meters
RE: Meters
TG: Meters

Flagpole Receptors

- [ ] Yes
- [x] No

Default Height = 0.00 m

Control Pathway

Optional Files

Re-Start File	Init File	Multi-Year Analyses	Event Input File	Error Listing File
☐	☐	☐	☐	■

Detailed Error Listing File

Filename: Casa de Oro.err

Source Pathway - Source Inputs

Line Volume Sources

Source Type: LINE VOLUME

Source: SLINE1 (Onsite Construction)

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
22.15	0.00037		500943.38	3623373.58	131.37	2.50
			500927.43	3623451.74	134.23	2.50
			500911.48	3623397.51	131.17	2.50
			500896.33	3623487.62	134.77	2.50

Source Type: LINE VOLUME

Source: SLINE2 (Offsite Hauling)

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
22.15	1.43E-6		500944.18	3623352.20	130.91	1.11
			501087.02	3623350.90	128.29	1.11
			500987.03	3623240.52	126.69	1.11

Source Pathway - Source Inputs

Volume Sources Generated from Line Sources

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
SLINE1	L0000027	500941.16	3623384.44	131.43	2.50	0.00006	22.15		19.12	2.37
	L0000028	500932.94	3623424.71	134.01	2.50	0.00006	22.15		19.12	2.37
	L0000029	500923.61	3623438.77	134.12	2.50	0.00006	22.15		19.12	2.37
	L0000030	500912.01	3623399.33	132.87	2.50	0.00006	22.15		19.12	2.37
	L0000031	500904.98	3623436.17	134.25	2.50	0.00006	22.15		19.12	2.37
	L0000032	500898.16	3623476.70	134.71	2.50	0.00006	22.15		19.12	2.37

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
SLINE2	L0000033	500955.26	3623352.10	131.01	1.11	2.04E-7	22.15		20.60	2.37
	L0000034	500999.55	3623351.69	131.21	1.11	2.04E-7	22.15		20.60	2.37
	L0000035	501043.85	3623351.29	129.87	1.11	2.04E-7	22.15		20.60	2.37
	L0000036	501086.26	3623350.06	128.31	1.11	2.04E-7	22.15		20.60	2.37
	L0000037	501056.52	3623317.23	127.65	1.11	2.04E-7	22.15		20.60	2.37
	L0000038	501026.78	3623284.40	127.24	1.11	2.04E-7	22.15		20.60	2.37
	L0000039	500997.04	3623251.57	126.86	1.11	2.04E-7	22.15		20.60	2.37

Source Pathway

Building Downwash Information

Option not in use

Emission Rate Units for Output

For Concentration

Unit Factor:	1E6
Emission Unit Label:	GRAMS/SEC
Concentration Unit Label:	MICROGRAMS/M**3

Receptor Pathway

Receptor Networks

Note: Terrain Elavations and Flagpole Heights for Network Grids are in Page RE2 - 1 (If applicable)
Generated Discrete Receptors for Multi-Tier (Risk) Grid and Receptor Locations for Fenceline Grid are in Page RE3 - 1 (If applicable)

Uniform Cartesian Grid

Receptor Network ID	Grid Origin X Coordinate [m]	Grid Origin Y Coordinate [m]	No. of X-Axis Receptors	No. of Y-Axis Receptors	Spacing for X-Axis [m]	Spacing for Y-Axis [m]
SCHOOL	500866.56	3623505.60	10	6	35.00	35.00

Discrete Receptors

Discrete Cartesian Receptors

Record Number	X-Coordinate [m]	Y-Coordinate [m]	Group Name (Optional)	Terrain Elevations	Flagpole Heights [m] (Optional)
1	500927.30	3623492.44		134.56	
2	500880.55	3623387.26		130.92	
3	500905.22	3623324.93		129.08	
4	500857.18	3623382.06		130.97	
5	500839.00	3623383.36		130.98	
6	500824.72	3623380.77		131.66	
7	500854.58	3623465.17		137.41	

Plant Boundary Receptors

Cartesian Plant Boundary

Primary

Record Number	X-Coordinate [m]	Y-Coordinate [m]	Group Name (Optional)	Terrain Elevations	Flagpole Heights [m] (Optional)
1	500946.57	3623359.23	FENCEPRI	130.88	
2	500945.77	3623467.68	FENCEPRI	134.26	
3	500915.47	3623472.47	FENCEPRI	134.54	
4	500905.90	3623486.03	FENCEPRI	134.69	
5	500904.30	3623517.92	FENCEPRI	134.91	
6	500885.96	3623517.92	FENCEPRI	135.17	
7	500892.34	3623374.38	FENCEPRI	130.80	
8	500938.59	3623374.38	FENCEPRI	131.28	
9	500939.39	3623374.38	FENCEPRI	131.28	
10	500940.19	3623359.23	FENCEPRI	130.81	

Receptor Pathway

Receptor Groups

Record Number	Group ID	Group Description
1	FENCEPRI	Cartesian plant boundary Primary Receptors

Receptor Pathway

Terrain Elevations and Flagpole Heights for Network Grids

Uniform Cartesian Grid

Receptor Network ID	Location: X-Coordinate [m]	Location: Y-Coordinate [m]	Terrain Elevations (Optional)	Flagpole Heights (Optional)
SCHOOL	500866.56	3623505.60	137.90	Option not Selected
	500901.56	3623505.60	134.90	
	500936.56	3623505.60	134.60	
	500971.56	3623505.60	134.50	
	501006.56	3623505.60	134.20	
	501041.56	3623505.60	134.00	
	501076.56	3623505.60	133.90	
	501111.56	3623505.60	133.70	
	501146.56	3623505.60	133.40	
	501181.56	3623505.60	132.70	
	500866.56	3623540.60	138.40	
	500901.56	3623540.60	135.90	
	500936.56	3623540.60	136.20	
	500971.56	3623540.60	136.10	
	501006.56	3623540.60	136.90	
	501041.56	3623540.60	136.30	
	501076.56	3623540.60	135.90	
	501111.56	3623540.60	135.80	
	501146.56	3623540.60	135.00	
	501181.56	3623540.60	134.00	
	500866.56	3623575.60	138.70	
	500901.56	3623575.60	138.70	
	500936.56	3623575.60	138.80	
	500971.56	3623575.60	138.90	
	501006.56	3623575.60	138.80	
	501041.56	3623575.60	138.80	
	501076.56	3623575.60	138.60	
	501111.56	3623575.60	138.30	
	501146.56	3623575.60	137.90	
	501181.56	3623575.60	135.60	
	500866.56	3623610.60	139.00	
	500901.56	3623610.60	139.00	
	500936.56	3623610.60	139.00	
	500971.56	3623610.60	139.10	
	501006.56	3623610.60	139.00	
	501041.56	3623610.60	139.40	
	501076.56	3623610.60	139.40	
	501111.56	3623610.60	139.40	
	501146.56	3623610.60	138.40	
	501181.56	3623610.60	137.20	
	500866.56	3623645.60	139.30	
	500901.56	3623645.60	139.30	
	500936.56	3623645.60	139.20	
	500971.56	3623645.60	139.70	
	501006.56	3623645.60	139.70	

Receptor Pathway

AERMOD

Receptor Network ID	Location: X-Coordinate [m]	Location: Y-Coordinate [m]	Terrain Elevations (Optional)	Flagpole Heights (Optional)
SCHOOL	501041.56	3623645.60	139.90	Option not Selected
	501076.56	3623645.60	140.30	
	501111.56	3623645.60	140.30	
	501146.56	3623645.60	139.40	
	501181.56	3623645.60	138.80	
	500866.56	3623680.60	145.40	
	500901.56	3623680.60	143.10	
	500936.56	3623680.60	142.10	
	500971.56	3623680.60	140.50	
	501006.56	3623680.60	140.90	
	501041.56	3623680.60	141.50	
	501076.56	3623680.60	146.90	
	501111.56	3623680.60	146.90	
	501146.56	3623680.60	145.10	
	501181.56	3623680.60	141.00	

Meteorology Pathway

Met Input Data

Surface Met Data

Filename: C:\Users\smyers\Desktop\Casa de Oro\722907.SFC
Format Type: Default AERMET format

Profile Met Data

Filename: C:\Users\smyers\Desktop\Casa de Oro\722907.PFL
Format Type: Default AERMET format

Wind Speed

☐ Wind Speeds are Vector Mean (Not Scalar Means)

Wind Direction

Rotation Adjustment [deg]:

Potential Temperature Profile

Base Elevation above MSL (for Primary Met Tower): 111.00 [m]

Meteorological Station Data

Stations	Station No.	Year	X Coordinate [m]	Y Coordinate [m]	Station Name
Surface		2009			
Upper Air		2009			

Data Period

Data Period to Process

Start Date: 1/1/2009 Start Hour: 1 End Date: 1/2/2014 End Hour: 24

Wind Speed Categories

Stability Category	Wind Speed [m/s]	Stability Category	Wind Speed [m/s]
A	1.54	D	8.23
B	3.09	E	10.8
C	5.14	F	No Upper Bound

Output Pathway

Tabular Printed Outputs

Short Term Averaging Period	RECTABLE Highest Values Table										MAXTABLE Maximum Values Table	DAYTABLE Daily Values Table
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th		
1	■	☐	☐	☐	☐	☐	☐	☐	☐	☐		No
24	■	☐	☐	☐	☐	☐	☐	☐	☐	☐		No

Contour Plot Files (PLOTFILE)

Path for PLOTFILES: Casa de Oro.AD

Averaging Period	Source Group ID	High Value	File Name
1	ALL	1st	01H1GALL.PLT
24	ALL	1st	24H1GALL.PLT
Annual	ALL	N/A	AN00GALL.PLT

Results Summary

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PM2.5 - Concentration - Source Group: ALL

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
1-HR	1ST	0.42525	ug/m^3	500905.90	3623486.03	134.69	0.00	217.70	12/27/2012, 1
24-HR	1ST	0.12512	ug/m^3	500905.90	3623486.03	134.69	0.00	217.70	12/18/2013, 24
ANNUAL		0.06720	ug/m^3	500945.77	3623467.68	134.26	0.00	217.70	

Sensitive Receptor Summary

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PM2.5 - Concentration - Source Group: ALL

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
1-HR	1ST	0.36724	ug/m^3	Ball Field	500927.30	3623492.44	134.56	0.00	217.70	1/8/2013, 3
1-HR	1ST	0.22340	ug/m^3	Residnce1	500880.55	3623387.26	130.92	0.00	217.70	10/18/2012, 1
1-HR	1ST	0.26496	ug/m^3	Tennis	500905.22	3623324.93	129.08	0.00	217.70	2/15/2013, 4
1-HR	1ST	0.29127	ug/m^3	Residnce2	500857.18	3623382.06	130.97	0.00	217.70	12/5/2012, 1
1-HR	1ST	0.26502	ug/m^3	Residnce3	500839.00	3623383.36	130.98	0.00	217.70	12/5/2012, 1
1-HR	1ST	0.24435	ug/m^3	Residnce4	500824.72	3623380.77	131.66	0.00	217.70	12/5/2012, 1
1-HR	1ST	0.39249	ug/m^3	Field	500854.58	3623465.17	137.41	0.00	217.70	12/26/2012, 21
24-HR	1ST	0.10848	ug/m^3	Ball Field	500927.30	3623492.44	134.56	0.00	217.70	12/18/2013, 24
24-HR	1ST	0.04007	ug/m^3	Residnce1	500880.55	3623387.26	130.92	0.00	217.70	10/25/2013, 24
24-HR	1ST	0.03244	ug/m^3	Tennis	500905.22	3623324.93	129.08	0.00	217.70	12/14/2013, 24
24-HR	1ST	0.04212	ug/m^3	Residnce2	500857.18	3623382.06	130.97	0.00	217.70	10/25/2013, 24
24-HR	1ST	0.03407	ug/m^3	Residnce3	500839.00	3623383.36	130.98	0.00	217.70	10/25/2013, 24
24-HR	1ST	0.02865	ug/m^3	Residnce4	500824.72	3623380.77	131.66	0.00	217.70	10/25/2013, 24
24-HR	1ST	0.10732	ug/m^3	Field	500854.58	3623465.17	137.41	0.00	217.70	11/16/2013, 24
ANNUAL		0.02404	ug/m^3	Ball Field	500927.30	3623492.44	134.56	0.00	217.70	
ANNUAL		0.01500	ug/m^3	Residnce1	500880.55	3623387.26	130.92	0.00	217.70	
ANNUAL		0.00914	ug/m^3	Tennis	500905.22	3623324.93	129.08	0.00	217.70	
ANNUAL		0.01273	ug/m^3	Residnce2	500857.18	3623382.06	130.97	0.00	217.70	
ANNUAL		0.00915	ug/m^3	Residnce3	500839.00	3623383.36	130.98	0.00	217.70	
ANNUAL		0.00722	ug/m^3	Residnce4	500824.72	3623380.77	131.66	0.00	217.70	

Sensitive Receptor Summary

C:\Lakes\AERMOD View\Casa de Oro\Casa de Oro.isc

PM2.5 - Concentration - Source Group: ALL

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
ANNUAL		0.01839	ug/m^3	Field	500854.58	3623465.17	137.41	0.00	217.70	

ATTACHMENT B

Greenhouse Gas Emissions Modeling Output

Casa De Oro - Proposed Project

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Library	13.00	1000sqft	0.30	13,000.00	0
Other Non-Asphalt Surfaces	3.00	1000sqft	0.07	3,000.00	0
Other Non-Asphalt Surfaces	0.90	Acre	0.90	39,204.00	0
Parking Lot	52.00	Space	0.47	20,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2022
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Casa De Oro - Proposed Project - San Diego County, Annual

Project Characteristics -

Land Use - Land uses account for library, parking lot, access driveway, landscaping, and fencing

Construction Phase - Construction expected to last 12 - 14 months. Building construction and paving assumed to occur simultaneously

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - The Project Description notes that grading will employ scrapers, graders, water trucks (accounted for in Construction Trips), dozers and compaction equipment

Off-road Equipment -

Demolition - 885.7 tons of demolished debris accounted. Conservatively includes modular building, as this is only being removed, existing restaurant, 17,424 sf of asphalt, and existing building fronting Campo Road

Grading - Exported material includes removal of grass fields. Imported material per Project Description

Vehicle Trips - Trip generation per Proejct Traffic Impact Assessment

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Energy Mitigation - 2019 Building Energy Efficiency Standards 30% more efficient in nonresidential building than Standards built-in to CalEEMod

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	4.00	20.00
tblConstructionPhase	NumDays	10.00	189.00
tblConstructionPhase	NumDays	2.00	15.00
tblGrading	MaterialExported	0.00	1,452.00
tblGrading	MaterialImported	0.00	2,000.00
tblGrading	MaterialImported	0.00	2,000.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblVehicleTrips	ST_TR	46.55	72.08
tblVehicleTrips	SU_TR	25.49	72.08
tblVehicleTrips	WD_TR	56.24	72.08

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					
2021	0.3037	2.7375	2.3489	4.6500e-003	0.2160	0.1255	0.3416	0.0885	0.1183	0.2068	0.0000	404.4040	404.4040	0.0854	0.0000	406.5378
2022	0.2179	0.3666	0.4103	7.5000e-004	7.9500e-003	0.0169	0.0248	2.1400e-003	0.0161	0.0182	0.0000	64.6045	64.6045	0.0127	0.0000	64.9218
Maximum	**0.3037**	**2.7375**	**2.3489**	**4.6500e-003**	**0.2160**	**0.1255**	**0.3416**	**0.0885**	**0.1183**	**0.2068**	**0.0000**	**404.4040**	**404.4040**	**0.0854**	**0.0000**	**406.5378**

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					
2021	0.3037	2.7375	2.3489	4.6500e-003	0.1122	0.1255	0.2377	0.0421	0.1183	0.1604	0.0000	404.4036	404.4036	0.0854	0.0000	406.5374
2022	0.2179	0.3666	0.4103	7.5000e-004	7.9500e-003	0.0169	0.0248	2.1400e-003	0.0161	0.0182	0.0000	64.6045	64.6045	0.0127	0.0000	64.9218
Maximum	**0.3037**	**2.7375**	**2.3489**	**4.6500e-003**	**0.1122**	**0.1255**	**0.2377**	**0.0421**	**0.1183**	**0.1604**	**0.0000**	**404.4036**	**404.4036**	**0.0854**	**0.0000**	**406.5374**

	ROG	NOx	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**	**46.38**	**0.00**	**28.36**	**51.25**	**0.00**	**20.65**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
2	**12-17-2020**	**3-16-2021**	0.1311	0.1311
3	**3-17-2021**	**6-16-2021**	1.0829	1.0829
4	**6-17-2021**	**9-16-2021**	0.8374	0.8374
5	**9-17-2021**	**12-16-2021**	0.8292	0.8292
6	**12-17-2021**	**3-16-2022**	0.7213	0.7213
		Highest	1.0829	1.0829

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	0.0722	1.0000e-005	6.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2300e-003	1.2300e-003	0.0000	0.0000	1.3100e-003
Energy	8.1000e-004	7.3700e-003	6.1900e-003	4.0000e-005		5.6000e-004	5.6000e-004		5.6000e-004	5.6000e-004	0.0000	45.7038	45.7038	1.6700e-003	4.6000e-004	45.8829
Mobile	0.2204	0.9122	2.2124	7.0200e-003	0.5985	6.0600e-003	0.6046	0.1603	5.6600e-003	0.1659	0.0000	648.2375	648.2375	0.0367	0.0000	649.1546
Waste						0.0000	0.0000		0.0000	0.0000	2.4298	0.0000	2.4298	0.1436	0.0000	6.0197
Water						0.0000	0.0000		0.0000	0.0000	0.1290	4.0409	4.1699	0.0134	3.5000e-004	4.6086
Total	**0.2934**	**0.9196**	**2.2192**	**7.0600e-003**	**0.5985**	**6.6200e-003**	**0.6051**	**0.1603**	**6.2200e-003**	**0.1665**	**2.5588**	**697.9834**	**700.5423**	**0.1954**	**8.1000e-004**	**705.6672**

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	0.0722	1.0000e-005	6.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2300e-003	1.2300e-003	0.0000	0.0000	1.3100e-003
Energy	7.2000e-004	6.5400e-003	5.5000e-003	4.0000e-005		5.0000e-004	5.0000e-004		5.0000e-004	5.0000e-004	0.0000	43.2646	43.2646	1.5900e-003	4.3000e-004	43.4330
Mobile	0.2204	0.9122	2.2124	7.0200e-003	0.5985	6.0600e-003	0.6046	0.1603	5.6600e-003	0.1659	0.0000	648.2375	648.2375	0.0367	0.0000	649.1546
Waste						0.0000	0.0000		0.0000	0.0000	2.4298	0.0000	2.4298	0.1436	0.0000	6.0197
Water						0.0000	0.0000		0.0000	0.0000	0.1290	4.0409	4.1699	0.0134	3.5000e-004	4.6086
Total	**0.2933**	**0.9187**	**2.2185**	**7.0600e-003**	**0.5985**	**6.5600e-003**	**0.6051**	**0.1603**	**6.1600e-003**	**0.1664**	**2.5588**	**695.5442**	**698.1031**	**0.1953**	**7.8000e-004**	**703.2172**

	ROG	NOx	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	**0.03**	**0.09**	**0.03**	**0.00**	**0.00**	**0.91**	**0.01**	**0.00**	**0.96**	**0.04**	**0.00**	**0.35**	**0.35**	**0.04**	**3.70**	**0.35**

3.0 Construction Detail

Construction Phase

Casa De Oro - Proposed Project - San Diego County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/1/2021	3/26/2021	5	20	
2	Site Preparation	Site Preparation	3/27/2021	4/16/2021	5	15	
3	Grading	Grading	4/17/2021	5/14/2021	5	20	
4	Building Construction	Building Construction	5/15/2021	2/18/2022	5	200	
5	Paving	Paving	6/1/2021	2/18/2022	5	189	
6	Architectural Coating	Architectural Coating	2/19/2022	3/4/2022	5	10	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 50

Acres of Paving: 1.44

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 19,500; Non-Residential Outdoor: 6,500; Striped Parking Area: 3,780 (Architectural Coating – sqft)

OffRoad Equipment

Casa De Oro - Proposed Project - San Diego County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	2	6.00	187	0.41
Grading	Plate Compactors	1	7.00	8	0.43
Grading	Rollers	1	7.00	80	0.38
Grading	Rubber Tired Dozers	2	6.00	247	0.40
Grading	Scrapers	2	7.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	88.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	250.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	23.00	0.00	432.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	32.00	12.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	6.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.5900e-003	0.0000	9.5900e-003	1.4500e-003	0.0000	1.4500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0199	0.1970	0.1449	2.4000e-004		0.0104	0.0104		9.7100e-003	9.7100e-003	0.0000	21.0713	21.0713	5.3900e-003	0.0000	21.2060
Total	**0.0199**	**0.1970**	**0.1449**	**2.4000e-004**	**9.5900e-003**	**0.0104**	**0.0200**	**1.4500e-003**	**9.7100e-003**	**0.0112**	**0.0000**	**21.0713**	**21.0713**	**5.3900e-003**	**0.0000**	**21.2060**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.3000e-004	0.0115	2.8300e-003	3.0000e-005	7.5000e-004	3.0000e-005	7.9000e-004	2.1000e-004	3.0000e-005	2.4000e-004	0.0000	3.3511	3.3511	3.0000e-004	0.0000	3.3587
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.2000e-004	3.2500e-003	1.0000e-005	1.0400e-003	1.0000e-005	1.0500e-003	2.8000e-004	1.0000e-005	2.8000e-004	0.0000	0.9107	0.9107	3.0000e-005	0.0000	0.9113
Total	**7.8000e-004**	**0.0118**	**6.0800e-003**	**4.0000e-005**	**1.7900e-003**	**4.0000e-005**	**1.8400e-003**	**4.9000e-004**	**4.0000e-005**	**5.2000e-004**	**0.0000**	**4.2618**	**4.2618**	**3.3000e-004**	**0.0000**	**4.2700**

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					3.7400e-003	0.0000	3.7400e-003	5.7000e-004	0.0000	5.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0199	0.1970	0.1449	2.4000e-004		0.0104	0.0104		9.7100e-003	9.7100e-003	0.0000	21.0713	21.0713	5.3900e-003	0.0000	21.2060
Total	**0.0199**	**0.1970**	**0.1449**	**2.4000e-004**	**3.7400e-003**	**0.0104**	**0.0142**	**5.7000e-004**	**9.7100e-003**	**0.0103**	**0.0000**	**21.0713**	**21.0713**	**5.3900e-003**	**0.0000**	**21.2060**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.3000e-004	0.0115	2.8300e-003	3.0000e-005	7.5000e-004	3.0000e-005	7.9000e-004	2.1000e-004	3.0000e-005	2.4000e-004	0.0000	3.3511	3.3511	3.0000e-004	0.0000	3.3587
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.2000e-004	3.2500e-003	1.0000e-005	1.0400e-003	1.0000e-005	1.0500e-003	2.8000e-004	1.0000e-005	2.8000e-004	0.0000	0.9107	0.9107	3.0000e-005	0.0000	0.9113
Total	**7.8000e-004**	**0.0118**	**6.0800e-003**	**4.0000e-005**	**1.7900e-003**	**4.0000e-005**	**1.8400e-003**	**4.9000e-004**	**4.0000e-005**	**5.2000e-004**	**0.0000**	**4.2618**	**4.2618**	**3.3000e-004**	**0.0000**	**4.2700**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0436	0.0000	0.0436	0.0222	0.0000	0.0222	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0117	0.1307	0.0567	1.3000e-004		5.7400e-003	5.7400e-003		5.2800e-003	5.2800e-003	0.0000	11.3388	11.3388	3.6700e-003	0.0000	11.4305
Total	**0.0117**	**0.1307**	**0.0567**	**1.3000e-004**	**0.0436**	**5.7400e-003**	**0.0494**	**0.0222**	**5.2800e-003**	**0.0275**	**0.0000**	**11.3388**	**11.3388**	**3.6700e-003**	**0.0000**	**11.4305**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.4000e-004	0.0327	8.0500e-003	1.0000e-004	2.1400e-003	1.0000e-004	2.2400e-003	5.9000e-004	9.0000e-005	6.8000e-004	0.0000	9.5203	9.5203	8.6000e-004	0.0000	9.5418
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.5000e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4203	0.4203	1.0000e-005	0.0000	0.4206
Total	**1.1500e-003**	**0.0328**	**9.5500e-003**	**1.0000e-004**	**2.6200e-003**	**1.0000e-004**	**2.7200e-003**	**7.2000e-004**	**9.0000e-005**	**8.1000e-004**	**0.0000**	**9.9406**	**9.9406**	**8.7000e-004**	**0.0000**	**9.9624**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0170	0.0000	0.0170	8.6500e-003	0.0000	8.6500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0117	0.1307	0.0567	1.3000e-004		5.7400e-003	5.7400e-003		5.2800e-003	5.2800e-003	0.0000	11.3388	11.3388	3.6700e-003	0.0000	11.4305
Total	**0.0117**	**0.1307**	**0.0567**	**1.3000e-004**	**0.0170**	**5.7400e-003**	**0.0228**	**8.6500e-003**	**5.2800e-003**	**0.0139**	**0.0000**	**11.3388**	**11.3388**	**3.6700e-003**	**0.0000**	**11.4305**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.4000e-004	0.0327	8.0500e-003	1.0000e-004	2.1400e-003	1.0000e-004	2.2400e-003	5.9000e-004	9.0000e-005	6.8000e-004	0.0000	9.5203	9.5203	8.6000e-004	0.0000	9.5418
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.5000e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4203	0.4203	1.0000e-005	0.0000	0.4206
Total	**1.1500e-003**	**0.0328**	**9.5500e-003**	**1.0000e-004**	**2.6200e-003**	**1.0000e-004**	**2.7200e-003**	**7.2000e-004**	**9.0000e-005**	**8.1000e-004**	**0.0000**	**9.9406**	**9.9406**	**8.7000e-004**	**0.0000**	**9.9624**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1171	0.0000	0.1171	0.0526	0.0000	0.0526	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0424	0.4764	0.2477	5.5000e-004		0.0202	0.0202		0.0186	0.0186	0.0000	47.9736	47.9736	0.0155	0.0000	48.3600
Total	**0.0424**	**0.4764**	**0.2477**	**5.5000e-004**	**0.1171**	**0.0202**	**0.1373**	**0.0526**	**0.0186**	**0.0711**	**0.0000**	**47.9736**	**47.9736**	**0.0155**	**0.0000**	**48.3600**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6200e-003	0.0564	0.0139	1.7000e-004	3.7000e-003	1.7000e-004	3.8700e-003	1.0200e-003	1.6000e-004	1.1800e-003	0.0000	16.4510	16.4510	1.4800e-003	0.0000	16.4881
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-004	5.7000e-004	5.7500e-003	2.0000e-005	1.8400e-003	1.0000e-005	1.8600e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.6112	1.6112	5.0000e-005	0.0000	1.6124
Total	**2.4200e-003**	**0.0570**	**0.0197**	**1.9000e-004**	**5.5400e-003**	**1.8000e-004**	**5.7300e-003**	**1.5100e-003**	**1.7000e-004**	**1.6800e-003**	**0.0000**	**18.0622**	**18.0622**	**1.5300e-003**	**0.0000**	**18.1005**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0457	0.0000	0.0457	0.0205	0.0000	0.0205	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0424	0.4764	0.2477	5.5000e-004		0.0202	0.0202		0.0186	0.0186	0.0000	47.9736	47.9736	0.0155	0.0000	48.3599
Total	**0.0424**	**0.4764**	**0.2477**	**5.5000e-004**	**0.0457**	**0.0202**	**0.0658**	**0.0205**	**0.0186**	**0.0391**	**0.0000**	**47.9736**	**47.9736**	**0.0155**	**0.0000**	**48.3599**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6200e-003	0.0564	0.0139	1.7000e-004	3.7000e-003	1.7000e-004	3.8700e-003	1.0200e-003	1.6000e-004	1.1800e-003	0.0000	16.4510	16.4510	1.4800e-003	0.0000	16.4881
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-004	5.7000e-004	5.7500e-003	2.0000e-005	1.8400e-003	1.0000e-005	1.8600e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.6112	1.6112	5.0000e-005	0.0000	1.6124
Total	**2.4200e-003**	**0.0570**	**0.0197**	**1.9000e-004**	**5.5400e-003**	**1.8000e-004**	**5.7300e-003**	**1.5100e-003**	**1.7000e-004**	**1.6800e-003**	**0.0000**	**18.0622**	**18.0622**	**1.5300e-003**	**0.0000**	**18.1005**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1495	1.1250	1.0642	1.8200e-003		0.0565	0.0565		0.0545	0.0545	0.0000	149.7768	149.7768	0.0267	0.0000	150.4453
Total	**0.1495**	**1.1250**	**1.0642**	**1.8200e-003**		**0.0565**	**0.0565**		**0.0545**	**0.0545**	**0.0000**	**149.7768**	**149.7768**	**0.0267**	**0.0000**	**150.4453**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0600e-003	0.1017	0.0271	2.7000e-004	6.5700e-003	2.2000e-004	6.7900e-003	1.9000e-003	2.1000e-004	2.1000e-003	0.0000	25.8826	25.8826	1.9200e-003	0.0000	25.9306
Worker	9.1800e-003	6.5500e-003	0.0660	2.0000e-004	0.0212	1.5000e-004	0.0213	5.6300e-003	1.4000e-004	5.7600e-003	0.0000	18.4938	18.4938	5.3000e-004	0.0000	18.5071
Total	**0.0122**	**0.1083**	**0.0931**	**4.7000e-004**	**0.0277**	**3.7000e-004**	**0.0281**	**7.5300e-003**	**3.5000e-004**	**7.8600e-003**	**0.0000**	**44.3764**	**44.3764**	**2.4500e-003**	**0.0000**	**44.4376**

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	0.1495	1.1250	1.0642	1.8200e-003		0.0565	0.0565		0.0545	0.0545	0.0000	149.7766	149.7766	0.0267	0.0000	150.4451
Total	**0.1495**	**1.1250**	**1.0642**	**1.8200e-003**		**0.0565**	**0.0565**		**0.0545**	**0.0545**	**0.0000**	**149.7766**	**149.7766**	**0.0267**	**0.0000**	**150.4451**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0600e-003	0.1017	0.0271	2.7000e-004	6.5700e-003	2.2000e-004	6.7900e-003	1.9000e-003	2.1000e-004	2.1000e-003	0.0000	25.8826	25.8826	1.9200e-003	0.0000	25.9306
Worker	9.1800e-003	6.5500e-003	0.0660	2.0000e-004	0.0212	1.5000e-004	0.0213	5.6300e-003	1.4000e-004	5.7600e-003	0.0000	18.4938	18.4938	5.3000e-004	0.0000	18.5071
Total	**0.0122**	**0.1083**	**0.0931**	**4.7000e-004**	**0.0277**	**3.7000e-004**	**0.0281**	**7.5300e-003**	**3.5000e-004**	**7.8600e-003**	**0.0000**	**44.3764**	**44.3764**	**2.4500e-003**	**0.0000**	**44.4376**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0289	0.2188	0.2227	3.9000e-004		0.0103	0.0103		9.9500e-003	9.9500e-003	0.0000	31.7760	31.7760	5.5300e-003	0.0000	31.9143
Total	**0.0289**	**0.2188**	**0.2227**	**3.9000e-004**		**0.0103**	**0.0103**		**9.9500e-003**	**9.9500e-003**	**0.0000**	**31.7760**	**31.7760**	**5.5300e-003**	**0.0000**	**31.9143**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.0000e-004	0.0204	5.4500e-003	6.0000e-005	1.3900e-003	4.0000e-005	1.4300e-003	4.0000e-004	4.0000e-005	4.4000e-004	0.0000	5.4383	5.4383	3.9000e-004	0.0000	5.4481
Worker	1.8400e-003	1.2700e-003	0.0130	4.0000e-005	4.4900e-003	3.0000e-005	4.5200e-003	1.1900e-003	3.0000e-005	1.2200e-003	0.0000	3.7791	3.7791	1.0000e-004	0.0000	3.7817
Total	**2.4400e-003**	**0.0217**	**0.0184**	**1.0000e-004**	**5.8800e-003**	**7.0000e-005**	**5.9500e-003**	**1.5900e-003**	**7.0000e-005**	**1.6600e-003**	**0.0000**	**9.2174**	**9.2174**	**4.9000e-004**	**0.0000**	**9.2298**

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	0.0289	0.2188	0.2227	3.9000e-004		0.0103	0.0103		9.9500e-003	9.9500e-003	0.0000	31.7759	31.7759	5.5300e-003	0.0000	31.9143
Total	**0.0289**	**0.2188**	**0.2227**	**3.9000e-004**		**0.0103**	**0.0103**		**9.9500e-003**	**9.9500e-003**	**0.0000**	**31.7759**	**31.7759**	**5.5300e-003**	**0.0000**	**31.9143**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.0000e-004	0.0204	5.4500e-003	6.0000e-005	1.3900e-003	4.0000e-005	1.4300e-003	4.0000e-004	4.0000e-005	4.4000e-004	0.0000	5.4383	5.4383	3.9000e-004	0.0000	5.4481
Worker	1.8400e-003	1.2700e-003	0.0130	4.0000e-005	4.4900e-003	3.0000e-005	4.5200e-003	1.1900e-003	3.0000e-005	1.2200e-003	0.0000	3.7791	3.7791	1.0000e-004	0.0000	3.7817
Total	**2.4400e-003**	**0.0217**	**0.0184**	**1.0000e-004**	**5.8800e-003**	**7.0000e-005**	**5.9500e-003**	**1.5900e-003**	**7.0000e-005**	**1.6600e-003**	**0.0000**	**9.2174**	**9.2174**	**4.9000e-004**	**0.0000**	**9.2298**

3.6 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0596	0.5962	0.6820	1.0400e-003		0.0320	0.0320		0.0295	0.0295	0.0000	90.5903	90.5903	0.0287	0.0000	91.3082
Paving	5.0000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0601**	**0.5962**	**0.6820**	**1.0400e-003**		**0.0320**	**0.0320**		**0.0295**	**0.0295**	**0.0000**	**90.5903**	**90.5903**	**0.0287**	**0.0000**	**91.3082**

3.6 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4800e-003	2.4800e-003	0.0250	8.0000e-005	8.0300e-003	6.0000e-005	8.0800e-003	2.1300e-003	5.0000e-005	2.1900e-003	0.0000	7.0122	7.0122	2.0000e-004	0.0000	7.0173
Total	**3.4800e-003**	**2.4800e-003**	**0.0250**	**8.0000e-005**	**8.0300e-003**	**6.0000e-005**	**8.0800e-003**	**2.1300e-003**	**5.0000e-005**	**2.1900e-003**	**0.0000**	**7.0122**	**7.0122**	**2.0000e-004**	**0.0000**	**7.0173**

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	0.0596	0.5962	0.6820	1.0400e-003		0.0320	0.0320		0.0295	0.0295	0.0000	90.5902	90.5902	0.0287	0.0000	91.3081
Paving	5.0000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0601**	**0.5962**	**0.6820**	**1.0400e-003**		**0.0320**	**0.0320**		**0.0295**	**0.0295**	**0.0000**	**90.5902**	**90.5902**	**0.0287**	**0.0000**	**91.3081**

3.6 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4800e-003	2.4800e-003	0.0250	8.0000e-005	8.0300e-003	6.0000e-005	8.0800e-003	2.1300e-003	5.0000e-005	2.1900e-003	0.0000	7.0122	7.0122	2.0000e-004	0.0000	7.0173
Total	**3.4800e-003**	**2.4800e-003**	**0.0250**	**8.0000e-005**	**8.0300e-003**	**6.0000e-005**	**8.0800e-003**	**2.1300e-003**	**5.0000e-005**	**2.1900e-003**	**0.0000**	**7.0122**	**7.0122**	**2.0000e-004**	**0.0000**	**7.0173**

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0120	0.1185	0.1541	2.4000e-004		6.0800e-003	6.0800e-003		5.6100e-003	5.6100e-003	0.0000	20.5968	20.5968	6.5300e-003	0.0000	20.7601
Paving	1.1000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0121**	**0.1185**	**0.1541**	**2.4000e-004**		**6.0800e-003**	**6.0800e-003**		**5.6100e-003**	**5.6100e-003**	**0.0000**	**20.5968**	**20.5968**	**6.5300e-003**	**0.0000**	**20.7601**

3.6 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.5000e-004	5.1000e-004	5.2800e-003	2.0000e-005	1.8200e-003	1.0000e-005	1.8400e-003	4.8000e-004	1.0000e-005	5.0000e-004	0.0000	1.5353	1.5353	4.0000e-005	0.0000	1.5363
Total	**7.5000e-004**	**5.1000e-004**	**5.2800e-003**	**2.0000e-005**	**1.8200e-003**	**1.0000e-005**	**1.8400e-003**	**4.8000e-004**	**1.0000e-005**	**5.0000e-004**	**0.0000**	**1.5353**	**1.5353**	**4.0000e-005**	**0.0000**	**1.5363**

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	0.0120	0.1185	0.1541	2.4000e-004		6.0800e-003	6.0800e-003		5.6100e-003	5.6100e-003	0.0000	20.5968	20.5968	6.5300e-003	0.0000	20.7601
Paving	1.1000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0121**	**0.1185**	**0.1541**	**2.4000e-004**		**6.0800e-003**	**6.0800e-003**		**5.6100e-003**	**5.6100e-003**	**0.0000**	**20.5968**	**20.5968**	**6.5300e-003**	**0.0000**	**20.7601**

3.6 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.5000e-004	5.1000e-004	5.2800e-003	2.0000e-005	1.8200e-003	1.0000e-005	1.8400e-003	4.8000e-004	1.0000e-005	5.0000e-004	0.0000	1.5353	1.5353	4.0000e-005	0.0000	1.5363
Total	**7.5000e-004**	**5.1000e-004**	**5.2800e-003**	**2.0000e-005**	**1.8200e-003**	**1.0000e-005**	**1.8400e-003**	**4.8000e-004**	**1.0000e-005**	**5.0000e-004**	**0.0000**	**1.5353**	**1.5353**	**4.0000e-005**	**0.0000**	**1.5363**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1725					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0200e-003	7.0400e-003	9.0700e-003	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787
Total	**0.1736**	**7.0400e-003**	**9.0700e-003**	**1.0000e-005**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2787**

3.7 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	7.0000e-005	7.0000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.2025	0.2025	1.0000e-005	0.0000	0.2026
Total	**1.0000e-004**	**7.0000e-005**	**7.0000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2025**	**0.2025**	**1.0000e-005**	**0.0000**	**0.2026**

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	0.1725					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0200e-003	7.0400e-003	9.0700e-003	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787
Total	**0.1736**	**7.0400e-003**	**9.0700e-003**	**1.0000e-005**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2787**

3.7 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	7.0000e-005	7.0000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.2025	0.2025	1.0000e-005	0.0000	0.2026
Total	**1.0000e-004**	**7.0000e-005**	**7.0000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2025**	**0.2025**	**1.0000e-005**	**0.0000**	**0.2026**

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	0.2204	0.9122	2.2124	7.0200e-003	0.5985	6.0600e-003	0.6046	0.1603	5.6600e-003	0.1659	0.0000	648.2375	648.2375	0.0367	0.0000	649.1546
Unmitigated	0.2204	0.9122	2.2124	7.0200e-003	0.5985	6.0600e-003	0.6046	0.1603	5.6600e-003	0.1659	0.0000	648.2375	648.2375	0.0367	0.0000	649.1546

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Library	937.04	937.04	937.04	1,588,149	1,588,149
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	937.04	937.04	937.04	1,588,149	1,588,149

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
Library	9.50	7.30	7.30	52.00	43.00	5.00	44	44	12
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Library	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122
Other Non-Asphalt Surfaces	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122
Parking Lot	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	36.1421	36.1421	1.4500e-003	3.0000e-004	36.2682
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	37.6843	37.6843	1.5200e-003	3.1000e-004	37.8158
NaturalGas Mitigated	7.2000e-004	6.5400e-003	5.5000e-003	4.0000e-005		5.0000e-004	5.0000e-004		5.0000e-004	5.0000e-004	0.0000	7.1225	7.1225	1.4000e-004	1.3000e-004	7.1649
NaturalGas Unmitigated	8.1000e-004	7.3700e-003	6.1900e-003	4.0000e-005		5.6000e-004	5.6000e-004		5.6000e-004	5.6000e-004	0.0000	8.0195	8.0195	1.5000e-004	1.5000e-004	8.0672

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					
Library	150280	8.1000e-004	7.3700e-003	6.1900e-003	4.0000e-005		5.6000e-004	5.6000e-004		5.6000e-004	5.6000e-004	0.0000	8.0195	8.0195	1.5000e-004	1.5000e-004	8.0672
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**8.1000e-004**	**7.3700e-003**	**6.1900e-003**	**4.0000e-005**		**5.6000e-004**	**5.6000e-004**		**5.6000e-004**	**5.6000e-004**	**0.0000**	**8.0195**	**8.0195**	**1.5000e-004**	**1.5000e-004**	**8.0672**

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					
Library	133471	7.2000e-004	6.5400e-003	5.5000e-003	4.0000e-005		5.0000e-004	5.0000e-004		5.0000e-004	5.0000e-004	0.0000	7.1225	7.1225	1.4000e-004	1.3000e-004	7.1649
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**7.2000e-004**	**6.5400e-003**	**5.5000e-003**	**4.0000e-005**		**5.0000e-004**	**5.0000e-004**		**5.0000e-004**	**5.0000e-004**	**0.0000**	**7.1225**	**7.1225**	**1.4000e-004**	**1.3000e-004**	**7.1649**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Library	108030	35.3052	1.4200e-003	2.9000e-004	35.4283
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	7280	2.3792	1.0000e-004	2.0000e-005	2.3875
Total		**37.6843**	**1.5200e-003**	**3.1000e-004**	**37.8158**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Library	103311	33.7629	1.3600e-003	2.8000e-004	33.8807
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	7280	2.3792	1.0000e-004	2.0000e-005	2.3875
Total		**36.1421**	**1.4600e-003**	**3.0000e-004**	**36.2682**

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	0.0722	1.0000e-005	6.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2300e-003	1.2300e-003	0.0000	0.0000	1.3100e-003
Unmitigated	0.0722	1.0000e-005	6.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2300e-003	1.2300e-003	0.0000	0.0000	1.3100e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0173					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0548					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	6.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2300e-003	1.2300e-003	0.0000	0.0000	1.3100e-003
Total	**0.0722**	**1.0000e-005**	**6.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.2300e-003**	**1.2300e-003**	**0.0000**	**0.0000**	**1.3100e-003**

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	0.0173					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0548					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	6.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2300e-003	1.2300e-003	0.0000	0.0000	1.3100e-003
Total	**0.0722**	**1.0000e-005**	**6.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.2300e-003**	**1.2300e-003**	**0.0000**	**0.0000**	**1.3100e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.1699	0.0134	3.5000e-004	4.6086
Unmitigated	4.1699	0.0134	3.5000e-004	4.6086

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Library	0.406756 / 0.636208	4.1699	0.0134	3.5000e-004	4.6086
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**4.1699**	**0.0134**	**3.5000e-004**	**4.6086**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Library	0.406756 / 0.636208	4.1699	0.0134	3.5000e-004	4.6086
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**4.1699**	**0.0134**	**3.5000e-004**	**4.6086**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	2.4298	0.1436	0.0000	6.0197
Unmitigated	2.4298	0.1436	0.0000	6.0197

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Library	11.97	2.4298	0.1436	0.0000	6.0197
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**2.4298**	**0.1436**	**0.0000**	**6.0197**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Library	11.97	2.4298	0.1436	0.0000	6.0197
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**2.4298**	**0.1436**	**0.0000**	**6.0197**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Casa de Oro - Existing Baseline

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High Turnover (Sit Down Restaurant)	2.31	1000sqft	0.05	2,310.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2020
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction this model

Vehicle Trips - Trip Generation per Traffic Impact Assessment

Energy Use -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	0.00
tblConstructionPhase	PhaseEndDate	3/10/2021	3/3/2021
tblVehicleTrips	ST_TR	158.37	177.48
tblVehicleTrips	SU_TR	131.84	177.48
tblVehicleTrips	WD_TR	127.15	177.48

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					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	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					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

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

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	0.0117	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Energy	2.2000e-003	0.0200	0.0168	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	53.9065	53.9065	1.7100e-003	6.7000e-004	54.1480
Mobile	0.1007	0.3817	0.8858	2.3300e-003	0.1793	2.4500e-003	0.1817	0.0480	2.3000e-003	0.0503	0.0000	214.5056	214.5056	0.0139	0.0000	214.8536
Waste						0.0000	0.0000		0.0000	0.0000	5.5802	0.0000	5.5802	0.3298	0.0000	13.8248
Water						0.0000	0.0000		0.0000	0.0000	0.2225	3.1462	3.3687	0.0230	5.7000e-004	4.1116
Total	**0.1146**	**0.4017**	**0.9026**	**2.4500e-003**	**0.1793**	**3.9700e-003**	**0.1833**	**0.0480**	**3.8200e-003**	**0.0518**	**5.8027**	**271.5584**	**277.3611**	**0.3684**	**1.2400e-003**	**286.9380**

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	0.0117	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Energy	2.2000e-003	0.0200	0.0168	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	53.9065	53.9065	1.7100e-003	6.7000e-004	54.1480
Mobile	0.1007	0.3817	0.8858	2.3300e-003	0.1793	2.4500e-003	0.1817	0.0480	2.3000e-003	0.0503	0.0000	214.5056	214.5056	0.0139	0.0000	214.8536
Waste						0.0000	0.0000		0.0000	0.0000	5.5802	0.0000	5.5802	0.3298	0.0000	13.8248
Water						0.0000	0.0000		0.0000	0.0000	0.2225	3.1462	3.3687	0.0230	5.7000e-004	4.1116
Total	**0.1146**	**0.4017**	**0.9026**	**2.4500e-003**	**0.1793**	**3.9700e-003**	**0.1833**	**0.0480**	**3.8200e-003**	**0.0518**	**5.8027**	**271.5584**	**277.3611**	**0.3684**	**1.2400e-003**	**286.9380**

	ROG	NOx	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	Architectural Coating	Architectural Coating	3/4/2021	3/3/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 3,465; Non-Residential Outdoor: 1,155; Striped Parking Area: 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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2021

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

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

3.2 Architectural Coating - 2021

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1007	0.3817	0.8858	2.3300e-003	0.1793	2.4500e-003	0.1817	0.0480	2.3000e-003	0.0503	0.0000	214.5056	214.5056	0.0139	0.0000	214.8536
Unmitigated	0.1007	0.3817	0.8858	2.3300e-003	0.1793	2.4500e-003	0.1817	0.0480	2.3000e-003	0.0503	0.0000	214.5056	214.5056	0.0139	0.0000	214.8536

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
High Turnover (Sit Down Restaurant)	409.98	409.98	409.98	475,684	475,684
Total	409.98	409.98	409.98	475,684	475,684

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
High Turnover (Sit Down	9.50	7.30	7.30	8.50	72.50	19.00	37	20	43

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
High Turnover (Sit Down Restaurant)	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: Y

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	32.1222	32.1222	1.2900e-003	2.7000e-004	32.2342
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	32.1222	32.1222	1.2900e-003	2.7000e-004	32.2342
NaturalGas Mitigated	2.2000e-003	0.0200	0.0168	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7843	21.7843	4.2000e-004	4.0000e-004	21.9138
NaturalGas Unmitigated	2.2000e-003	0.0200	0.0168	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7843	21.7843	4.2000e-004	4.0000e-004	21.9138

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					
High Turnover (Sit Down Restaurant)	408223	2.2000e-003	0.0200	0.0168	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7843	21.7843	4.2000e-004	4.0000e-004	21.9138
Total		**2.2000e-003**	**0.0200**	**0.0168**	**1.2000e-004**		**1.5200e-003**	**1.5200e-003**		**1.5200e-003**	**1.5200e-003**	**0.0000**	**21.7843**	**21.7843**	**4.2000e-004**	**4.0000e-004**	**21.9138**

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					
High Turnover (Sit Down Restaurant)	408223	2.2000e-003	0.0200	0.0168	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7843	21.7843	4.2000e-004	4.0000e-004	21.9138
Total		**2.2000e-003**	**0.0200**	**0.0168**	**1.2000e-004**		**1.5200e-003**	**1.5200e-003**		**1.5200e-003**	**1.5200e-003**	**0.0000**	**21.7843**	**21.7843**	**4.2000e-004**	**4.0000e-004**	**21.9138**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
High Turnover (Sit Down Restaurant)	98290.5	32.1222	1.2900e-003	2.7000e-004	32.2342
Total		**32.1222**	**1.2900e-003**	**2.7000e-004**	**32.2342**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
High Turnover (Sit Down Restaurant)	98290.5	32.1222	1.2900e-003	2.7000e-004	32.2342
Total		**32.1222**	**1.2900e-003**	**2.7000e-004**	**32.2342**

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	0.0117	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Unmitigated	0.0117	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.6800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	9.0200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Total	**0.0117**	**0.0000**	**2.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0000**	**4.0000e-005**

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	2.6800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	9.0200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Total	**0.0117**	**0.0000**	**2.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0000**	**4.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3.3687	0.0230	5.7000e-004	4.1116
Unmitigated	3.3687	0.0230	5.7000e-004	4.1116

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
High Turnover (Sit Down Restaurant)	0.701163 / 0.0447551	3.3687	0.0230	5.7000e-004	4.1116
Total		**3.3687**	**0.0230**	**5.7000e-004**	**4.1116**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
High Turnover (Sit Down Restaurant)	0.701163 / 0.0447551	3.3687	0.0230	5.7000e-004	4.1116
Total		**3.3687**	**0.0230**	**5.7000e-004**	**4.1116**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	5.5802	0.3298	0.0000	13.8248
Unmitigated	5.5802	0.3298	0.0000	13.8248

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
High Turnover (Sit Down Restaurant)	27.49	5.5802	0.3298	0.0000	13.8248
Total		**5.5802**	**0.3298**	**0.0000**	**13.8248**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
High Turnover (Sit Down Restaurant)	27.49	5.5802	0.3298	0.0000	13.8248
Total		**5.5802**	**0.3298**	**0.0000**	**13.8248**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation