City of Pittsburg
Community Development Department

Los Medanos Industrial Park

Initial Study

June 2019

RANEY PLANNING & MANAGEMENT, INC.

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APPENDIX:

Air Quality and GHG Modeling Results

INITIAL STUDY

June 2019

A. BACKGROUND

1. Project Title: Los Medanos Industrial Park Project

2. Lead Agency Name and Address: City of Pittsburg
Community Development Department
65 Civic Avenue
Pittsburg, CA 94565

3. Contact Person and Phone Number: Kristin Pollot
Planning Manager
(925) 252-6941

4. Project Location: South of intersection of Garcia Street and Martin Street and at the terminus of Kelley Court
APNs: 088-530-004, -005, & -006, and 088-540-007, -014, & -018

5. Project Sponsor's Name and Address: Sierra Pacific Properties
1800 Willow Pass Court
Concord, CA 94520
(925) 609-6200

6. Existing General Plan Designation: Business Commercial

7. Existing Zoning Designation: Industrial Park (IP)

8. Required Approvals from Other Public Agencies: None

9. Surrounding Land Uses and Setting:

The project site consists of three separate lots, totaling approximately 7.16 acres located south of the intersection of Garcia Avenue and Martin Street and at the terminus of Kelley Court. The lots are identified by Assessor's Parcel Numbers (APNs) 088-530-004, -005, & -006, and 088-540-007, -014, & -018. All lots are vacant and regularly disked. The lot located south of Garcia Avenue makes up 2.5 acres of the project total, and is surrounded by industrial buildings to the west, north, and east, residential development to the south, and Kirker Creek to the northwest. The 0.89-acre lot located west of the terminus of Kelley Court and the 1.80-acre and 1.97-acre lots located east of the terminus of Kelley Court are surrounded by industrial developments on all sides.

10. Project Description Summary:

    The proposed project would include four shell buildings for future industrial uses, as well as incidental site improvements. The four buildings are designated as Buildings A-D. The sizes of each would be 47,500 square feet (sf), 14,400 sf, 25,000 sf, and 23,000 sf, respectively. Each building would include between eight and twelve roll-up grade-level doors. The allowed uses within the IP zone can include service-oriented commercial and light industrial uses with limited customer presence, including office centers, research and development facilities, and limited industrial activities.

11. Status of Native American Consultation Pursuant to Public Resources Code Section 21080.3.1:

    In compliance with Assembly Bill (AB) 52 (Public Resources Code Section 21080.3.1), project notification letters were distributed to the Amah Mutsun Tribal Band of Mission San Juan Bautista, the Indian Canyon Mutsun Band of Costanoan, the Muwekma Ohlone Indian Tribe of the SF Bay Area, the North Valley Yokuts Tribe, the Ohlone Indian Tribe, and the Wilton Rancheria. The letters were distributed on November 20, 2018 and requests to consult were not received within the required response period.

B. SOURCES

All of the technical reports and modeling results used for the project analysis are available upon request at the City of Pittsburg Community Development Department, located 65 Civic Avenue, Pittsburg, CA 94565. The following documents are referenced information sources used for the purposes of this Initial Study:

1. Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines*. Available at: http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. May 2017.
2. California Air Resources Board. *The 2017 Climate Change Scoping Plan Update.* Available at: https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. January 20, 2017.
3. California Department of Conservation. *Contra Costa County Important Farmland 2016.* Available at: https://www.conservation.ca.gov/dlrp/fmmp/Pages/ContraCosta.aspx. August 2018.
4. California Department of Conservation. *DOC Maps*. Available at: https://maps.conservation.ca.gov/#dataviewer. Accessed January 2019.
5. California Department of Forestry and Fire Protection. *Contra Costa County, Very High Fire Hazard Severity Zones in LRA*. Available at: https://www.fire.ca.gov/fire_prevention/fhsz_maps_contracosta. January 7, 2009.
6. California Department of Resources Recycling and Recovery. *Facility/Site Summary Details: Potrero Hills Landfill (48-AA-0075).* Available at: http://www.calrecycle.ca.gov/SWFacilities/Directory/48-AA-0075/Detail/. Accessed February 4, 2018.

7. California Department of Toxic Substances Control. *DTSC's Hazardous Waste and Substances Site List*. Available at: https://www.dtsc.ca.gov/SiteCleanup/Cortese_List.cfm. Accessed February 2019.
8. California Department of Transportation. *California Scenic Highway Mapping System*. Available at: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm. Accessed January 2019.
9. Caltrans. *Transportation Related Earthborne Vibrations.* Available at: http://www.dot.ca.gov/hq/env/noise/pub/TRANSPORTATION_RELATED_EARTHBORNE_VIBRATIONS.pdf. February 20, 2002.
10. City of Pittsburg. *2020 General Plan.* June 2001.
11. City of Pittsburg. *City of Pittsburg 2015 Urban Water Management Plan Final Draft.* Available at: http://www.ci.pittsburg.ca.us/Modules/ShowDocument.aspx?documentid=8283. June 2016.
12. City of Pittsburg. *City of Pittsburg General Plan 2002: Draft Environmental Impact Report*. January 2001.
13. City of Pittsburg. *Pittsburg Municipal Code*. December 3, 2018.
14. Contra Costa Transportation Authority. *2017 Update of the Contra Costa Congestion Management Program.* December 2017.
15. Contra Costa Water District. *2015 Urban Water Management Plan for the Contra Costa Water District*. Available at: https://www.ccwater.com/DocumentCenter/View/2216/2015-CCWD-Urban-Water-Management-Plan-PDF. June 2016.
16. Delta Diablo Sanitation District. *Sewer System Management Plan*. October 10, 2018.
17. Delta Diablo Sanitation District. *Transforming Wastewater to Resources*. Available at: https://www.deltadiablo.org/about-us/about-us. Accessed February 4, 2019.
18. East Contra Costa County Conservancy. *Final East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan, Chapter 3 Physical and Biological Resources.* Updated December 19, 2006.
19. East Contra Costa County Conservancy. *High Resolution Development Fee Zone Map*. Available at: http://www.co.contra-costa.ca.us/depart/cd/water/HCP/project-permitting.html. Accessed June 2016.
20. Federal Transit Administration. *Transit Noise and Vibration Impact Assessment Guidelines.* Available at: https://www.transit.dot.gov/research-innovation/transit-noise-and-vibration-impact-assessment-manual-report-0123. May 2006.
21. Northwest Information Center. *Records Search Results for the Proposed Los Medanos Industrial Park Project.* November 27, 2018.
22. Sacramento Metropolitan Air District. *Guide to Air Quality Assessment in Sacramento County*. Available at: http://www.airquality.org/businesses/ceqa-land-use-planning/ceqa-guidance-tools. Accessed February 2019.
23. Saxelby Acoustics. *Environmental Noise Assessment Los Medanos Industrial Park*. January 17, 2019.
24. United States Department of Agriculture, Natural Resources Conservation Service. *Web Soil Survey*. Available at:

https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed February 2019.

C. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ **Aesthetics**	☐ **Agriculture and Forest Resources**	✖ **Air Quality**
✖ **Biological Resources**	✖ **Cultural Resources**	☐ **Energy**
✖ **Geology and Soils**	☐ **Greenhouse Gas Emissions**	☐ **Hazards and Hazardous Materials**
✖ **Hydrology and Water Quality**	☐ **Land Use and Planning**	☐ **Mineral Resources**
✖ **Noise**	☐ **Population and Housing**	☐ **Public Services**
☐ **Recreation**	☐ **Transportation**	✖ **Tribal Cultural Resources**
☐ **Utilities and Service Systems**	☐ **Wildfire**	☐ **Mandatory Findings of Significance**

D. DETERMINATION

On the basis of this initial study:

☐ I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

✖ I find that although the Proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the applicant. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

6/14/19

Signature | Date

Kristin Pollot, AICP, Planning Manager | City of Pittsburg
Printed Name | For

E. BACKGROUND AND INTRODUCTION

This Initial Study identifies and analyzes the potential environmental impacts of the Los Medanos Industrial Park (proposed project). The information and analysis presented in this document is organized in accordance with the order of the California Environmental Quality Act (CEQA) checklist in Appendix G of the CEQA Guidelines. Where the analysis provided in this document identifies potentially significant environmental effects of the project, mitigation measures are prescribed.

The mitigation measures prescribed for environmental effects described in this Initial Study/Mitigated Negative Declaration (IS/MND) would be implemented in conjunction with the project, as required by CEQA. The mitigation measures would be incorporated into the project through project conditions of approval. The City would adopt findings and a Mitigation Monitoring/Reporting Program for the project in conjunction with approval of the project.

The City of Pittsburg adopted the General Plan and certified the General Plan EIR on November 16, 2001. The General Plan EIR was prepared as a program-level EIR, pursuant to Section 15168 of the CEQA Guidelines (Title 14, California Code of Regulations, Sections 15000 *et seq*.). Information for the environmental setting discussions for each section of this Initial Study is largely based on information in the City of Pittsburg General Plan EIR. The Railroad Avenue Specific Plan (RASP) was adopted by the City Council on November 2, 2009 and encompasses the project site.

Per Section 15152 of the CEQA Guidelines, a project which is consistent with the General Plan and zoning of the City may tier from the analysis contained in the General Plan EIR, incorporating by reference the general discussions from the broader EIR. The proposed project would be consistent with the General Plan and zoning designations for the project site; therefore, in accordance with Section 15152 of the CEQA Guidelines, the analysis within this IS/MND will rely on analysis previously prepared in the General Plan EIR.

F. PROJECT DESCRIPTION

The following provides a description of the project site's current location and setting, as well as the proposed project components and the discretionary actions required for the project.

Project Location and Setting

The project site consists of three separate lots, totaling approximately 7.16 acres located south of the intersection of Garcia Avenue and Martin Street and at the terminus of Kelley Court. The lot located south of Garcia Avenue makes up 2.5 acres of the project total, and is surrounded by residential development to the south and industrial buildings to the north and east. Kirker Creek borders the lot to the west. The 0.89-acre lot located west of the terminus of Kelley Court and the 3.77-acre lot located east of the terminus of Kelley Court is surrounded by industrial and commercial developments on all sides (See Figure 2). Residential uses to the south of the project site are separated from the project site by an existing eight-foot sound wall.

Figure 1
Regional Project Map

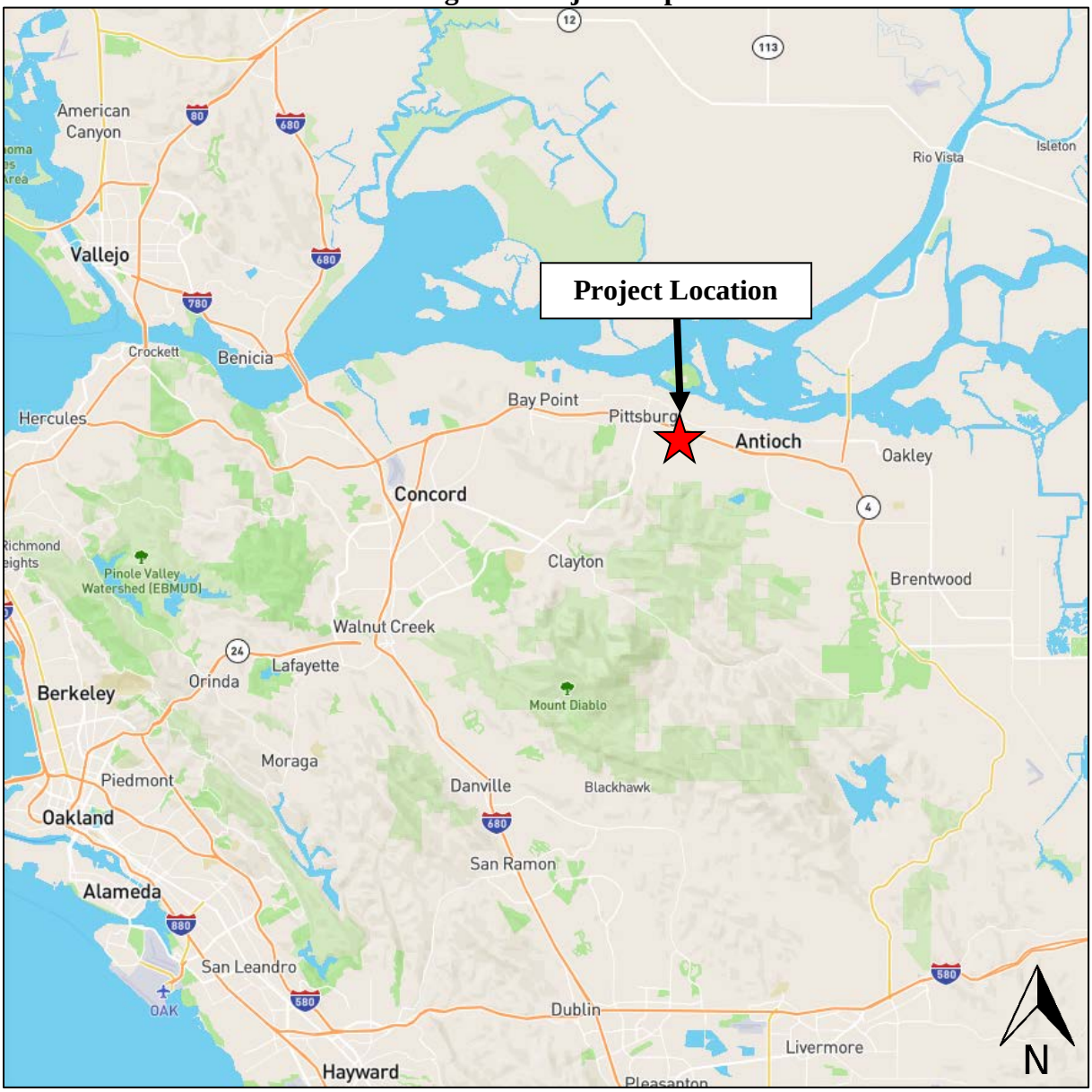


Figure 2
Project Boundaries Map

The lots are all vacant and regularly disked. Ruderal vegetation exists over the edges of the lots, with scattered ornamental trees and shrubs along the site frontages to Garcia Avenue and Kelley Court.

Project Components

The proposed project would include development of three lots with four shell buildings, totaling 109,884 sf as well as various other site improvements related to internal vehicle circulation, stormwater management, and landscaping. The proposed structures would be sized as follows:

The buildings, referenced as Buildings A through D, would be designed as follows:

- Building A: 37,517 sf warehouse space and 10,000 sf office space;
- Building B: 10,616 sf warehouse space and 4,000 sf office space;
- Building C: 19,000 sf warehouse space and 6,300 sf office space; and
- Building D: 15,925 sf warehouse space and 7,300 sf office space.

Additionally, the proposed project would include roll up doors on the rear of each building. On-site parking would be provided by 198 proposed parking spaces. The site plan for the proposed project is presented as Figure 3 below. The proposed project would require City approval of the proposed Site Plan and Design Review.

The project components, including the requested approvals, are discussed in detail below.

Access and Circulation

Primary site access would be provided by Garcia Avenue. Building A would include construction of a driveway with entry directly from Garcia Avenue (see Figure 4). Buildings B, C, and D would be accessed by Kelley Court, which is located off of Garcia Avenue. Each building would construct driveway access from Kelley Court (see Figure 5).

Pedestrian access to the project site would be provided by connections to the existing sidewalk along Garcia Avenue. The project site is located approximately 0.15 mile from the nearest bus station. Additionally, the proposed project would provide 26 bicycle parking spots, and Garcia Avenue maintains a large enough road to accommodate bikes along either side. The project site is approximately 0.25-mile from the Delta de Anza Regional Trail, which is a Class I bikeway running throughout Contra Costa County.

Parking

Parking spaces would be constructed as part of the paving of the property. Building A would be allotted 65 spaces, Building B 23 spaces, Building C 50 spaces, and Building D 51 spaces. Parking would be generally shaded by trees in planters in the parking areas. Each building would provide bicycle parking, as well as ADA compliant spaces and a total of 18 electric vehicle stalls.

Figure 3
Site Plan

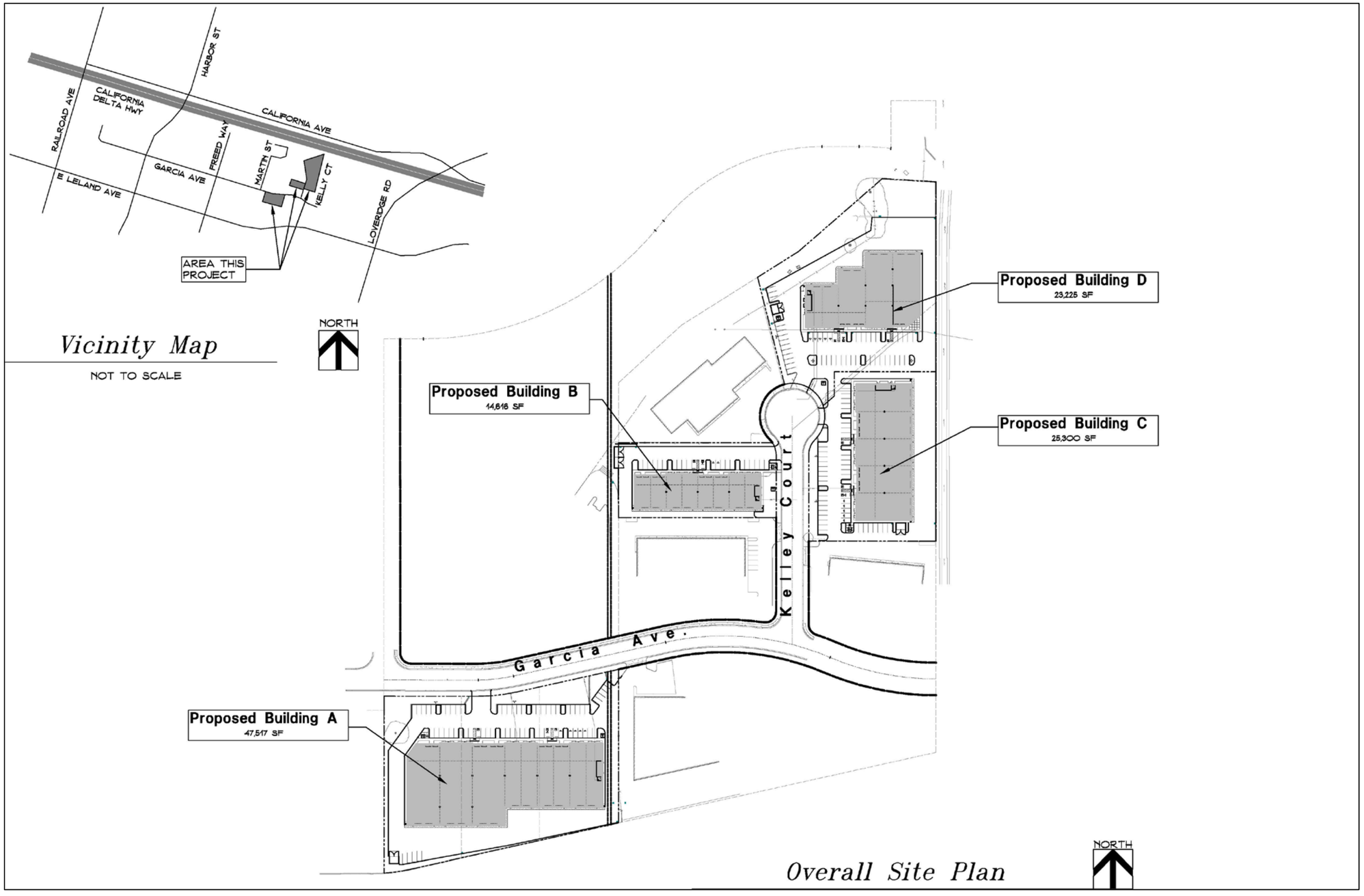


Figure 4
Building A

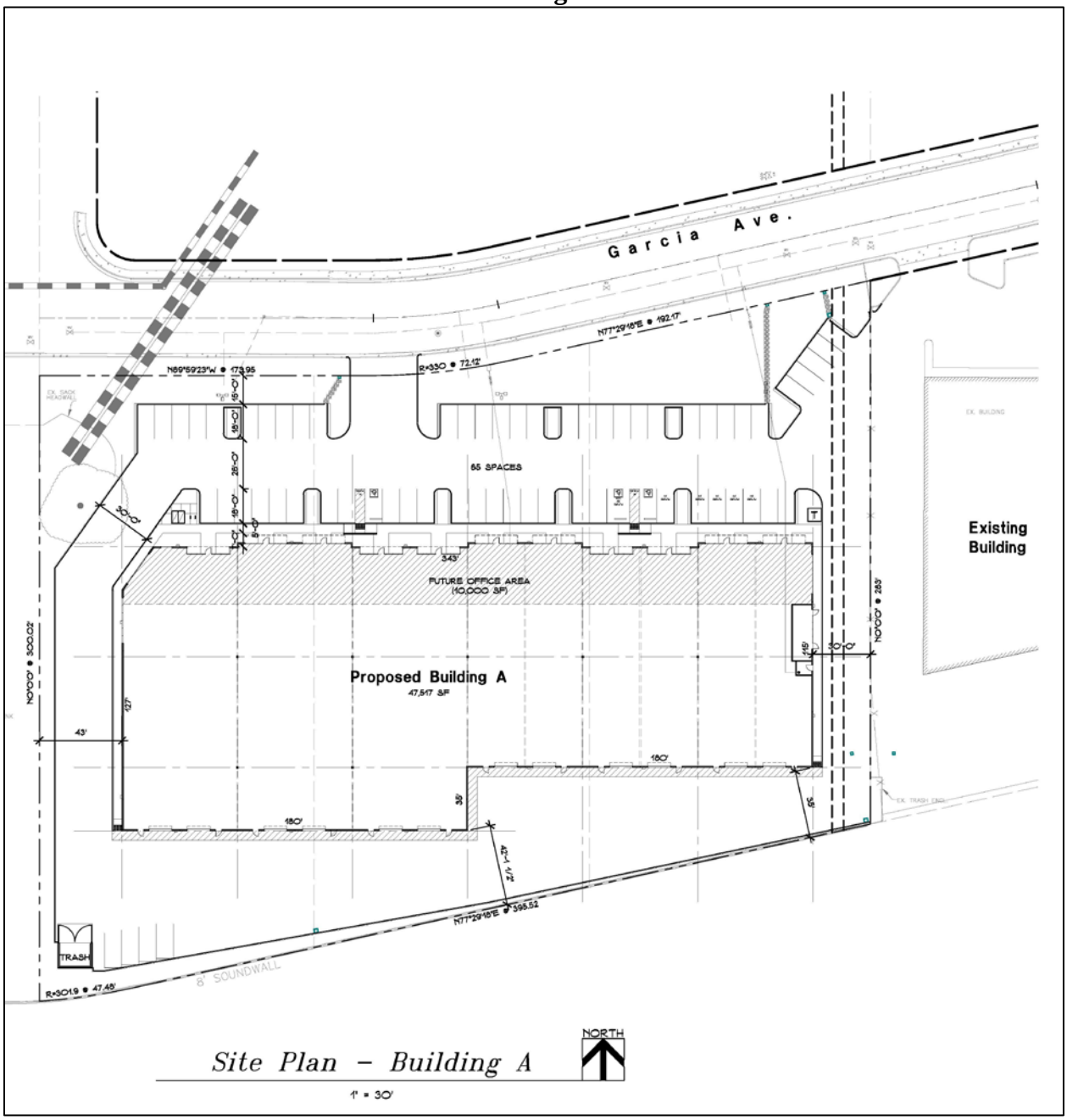
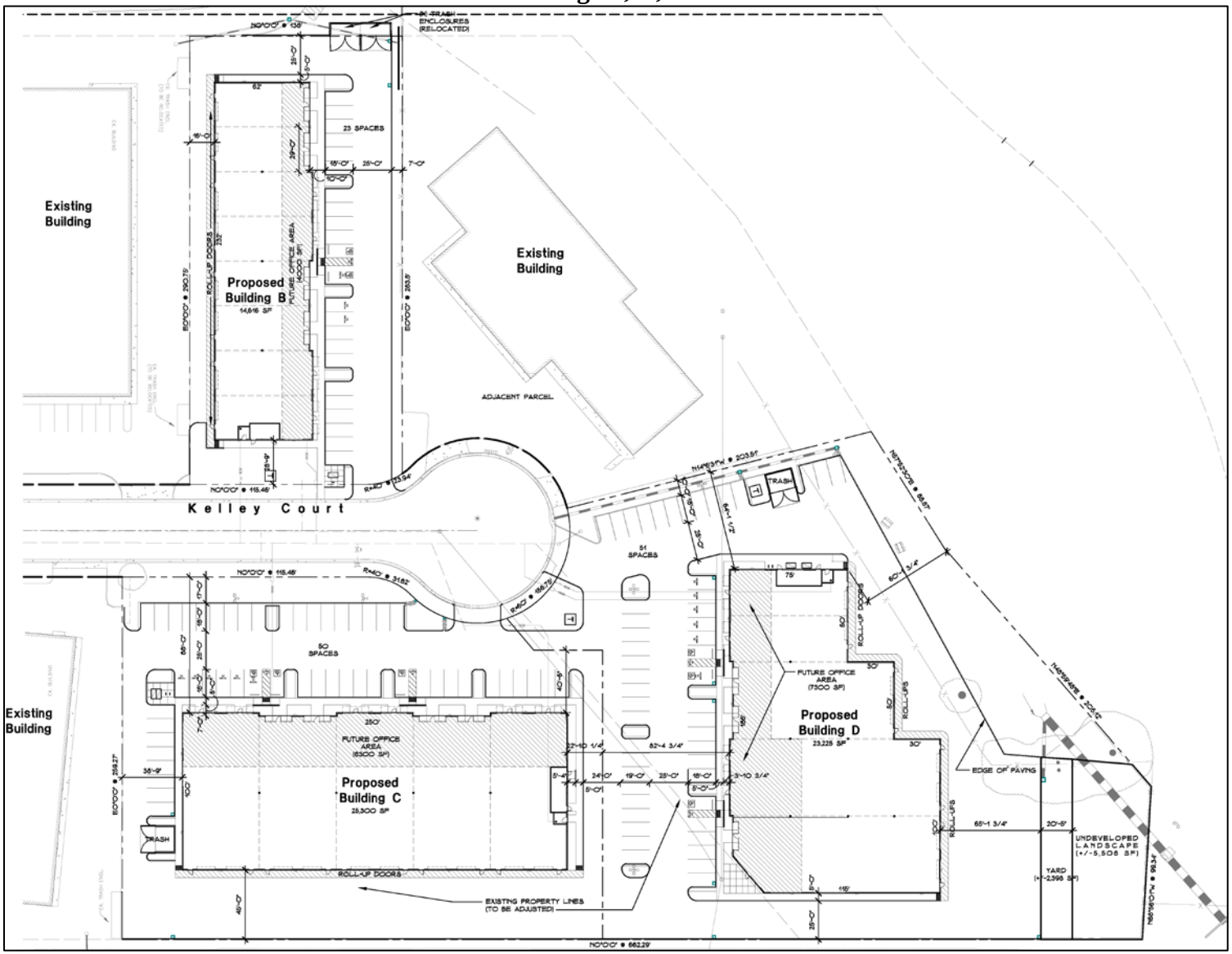


Figure 5
Buildings B, C, and D



Landscaping

The proposed project would include landscaping along the frontage of each building and lining Garcia Avenue and Kelley Court. Each building would be protected from view of the street by a 30- to 36-inch-high evergreen plant screen. As per Chapter 18.54 of the City's Municipal Code, the proposed project must include 15 percent coverage by landscaped areas. The proposed project would adhere to the water efficient landscape standards set by the City.

Utilities

Site plans for Building A include connection of a six-inch sanitary sewer line to an existing six-inch sewer line within Garcia Avenue. Buildings B and C would connect a six-inch sanitary sewer line to an existing eight-inch sewer line running beneath Kelley Court. Building D would connect a six-inch sanitary line to an existing eight-inch sewer line running beneath the proposed parking lot.

Water utilities for Building A would be provided by connection of a two-inch water lateral to an existing eight-inch water lateral within Garcia Avenue. Buildings B, C, and D would include connection of a two-inch water lateral to an existing eight-inch water lateral running beneath Kelley Court.

Stormwater drainage for all buildings would flow through existing drainage channels. The proposed project includes construction of Christy V12 and Christy V64 catch basins as well as earth swales lined with cobble stone at each building site. Buildings C and D would provide outfall to an existing drainage channel on the eastern side of the buildings.

All buildings would use either existing or proposed trash enclosures for waste disposal. The enclosures would be constructed as gray split face concrete walls covered by metal rooves. All proposed enclosures are removed from view of the street, either behind or beside the proposed buildings.

Design Review

Per Chapter 18.36 of the City's Municipal Code, the proposed project would be subject to Site Plan and Design Review by the City. Section 18.36.210 of the City's Municipal Code specifies that the Planning Commission will review the design of the building proposed in the application for a land use permit or building permit in each land use district other than single-family residential. Such review is intended to ensure that new development within the City generally contributes to the character and image of the City, conforms with the nature of the neighborhood, and is in harmony with proposed developments on land in the general area.

Discretionary Actions

Implementation of the proposed project would require the following discretionary actions by the City of Pittsburg:

- Adoption of the Initial Study/Mitigated Negative Declaration;

- Adoption of the Mitigation Monitoring and Reporting Program; and
- Site Plan and Design Review for the development of an industrial park.

As noted previously, tenants have not been identified for the proposed buildings. At the time that specific uses are proposed for the buildings, additional entitlements, such as approval of Use Permits, may be required consistent with the City's Zoning Ordinance. However, such future entitlements are speculative, and are not considered a component of the proposed project for the purpose of this IS/MND.

G. ENVIRONMENTAL CHECKLIST

The following Checklist contains the environmental checklist form presented in Appendix G of the CEQA Guidelines. The checklist form is used to describe the impacts of the proposed project. A discussion follows each environmental issue identified in the checklist. For this checklist, the following designations are used:

Potentially Significant Impact: An impact that could be significant, and for which no mitigation has been identified. If any potentially significant impacts are identified, an EIR must be prepared.

Less Than Significant with Mitigation Incorporated: An impact that requires mitigation to reduce the impact to a less-than-significant level.

Less-Than-Significant Impact: Any impact that would not be considered significant under CEQA relative to existing standards.

No Impact: The project would not have any impact.

I. AESTHETICS. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?	☐	☐	✖	☐
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	☐	☐	✖	☐
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	✖	☐
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	✖	☐

Discussion

a,b. Examples of typical scenic vistas include mountain ranges, ridgelines, or bodies of water as viewed from a highway, public space, or other area designated for the express purpose of viewing and sightseeing. In general, a project's impact to a scenic vista would occur if development of the project would substantially change or remove a scenic vista. The City's General Plan states the most identifying feature lending the City a sense of character is the rolling, grassy hills to the south and Suisun Bay/Sacramento River Delta to the north. The project site is not located within any identified viewpoints of the mountains and slopes within the City and would not obstruct any viewing points in the vicinity.

According to the California Scenic Highway Mapping System, the proposed project site is not located within the vicinity of an officially designated State Scenic Highway.[1] The project site is located near State Route (SR) 4, which has been designated as Eligible for State Scenic Highway listing; however, the project site is located more than six miles away from the eligible portion. In addition, the proposed project would be visually consistent with existing development in the project vicinity. Thus, the proposed project would not alter the scenic nature of SR 4.

Based on the above, development of the proposed industrial park would not have a substantial adverse effect on a scenic vista and would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway. Thus, a ***less-than-significant*** impact would occur.

[1] California Department of Transportation. *California Scenic Highway Mapping System*. Available at: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm. Accessed January 2019.

c. The project site is located within an urbanized area of the City. Industrial and commercial developments exist to the north, east, and west of the project site, while a residential development exists to the south of the project site. Currently, the project site is undeveloped and regularly disked.

The proposed project would include development of three lots with a total of 109,884 sf of warehouse and office space, 198 parking spaces, associated driveways, and landscaping. Such development would be consistent with the existing General Plan land use and zoning designations for the project site, as well as the existing surroundings. The proposed project would also require a Site Plan and Design Review pursuant to Chapter 18.36 of the City's Municipal Code. As part of the design review process, the Planning Commission would review the design of the building prior to issuance of the land use or building permit for conformance with the City's design guidelines, compatibility with existing surrounding land uses, and obstruction of views of the hills and major ridgelines.

Given that the project would not conflict with applicable zoning and other regulations governing scenic quality, a ***less-than-significant*** impact would occur.

d. Due to the largely undeveloped nature of the project site, existing sources of light and glare do not exist within the site. However, street lights exist along the project frontage of Garcia Avenue in proximity to the project site. In addition, the surrounding developments within the project vicinity feature outdoor and indoor lighting fixtures.

Development of the project sites with an industrial park and parking areas would involve potential sources of light and glare associated with interior light spilling through windows, exterior lighting on the proposed structures, outdoor lighting in the parking areas, and light reflected off windows. However, such sources of light and glare would not be substantially more intensive than the industrial and manufacturing uses that currently occur in the vicinity of the project site. Furthermore, lighting associated with the parking areas, which would be the most substantial introduction of light, would be required to adhere to Section 18.78.050 of the City's Municipal Code, which prohibits the use of any light source that would cause any direct illumination on an adjacent street or lot in residential use.[2]

While Building A is directly north of existing residential uses, the building would be separated from the residences by an eight-foot sound wall, which would aide in blocking light seepage. Furthermore, the south side of the building would not contain any windows from which light could escape. Per Section 18.82.030 of the City's Municipal Code, outdoor lighting must be shielded or directed away from any residential uses in proximity of the project site. Compliance with the City's Municipal Code would ensure that building and parking-related lighting would not result in illumination of the nearby residential uses.

Given the consistency of the proposed project with surrounding commercial and industrial development, and that the Site Plan and Design Review process would include plan checks to ensure that the proposed project is designed in conformance with the neighborhood, implementation of the project would result in a ***less-than-significant*** impact with respect

[2] City of Pittsburg. *Pittsburg Municipal Code.* December 3, 2018.

to creating a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

II. AGRICULTURE AND FOREST RESOURCES. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	✖
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	✖
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	✖
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	✖
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	✖

Discussion

a,e. The project site is currently designated as "Urban and Built-Up Land" per the California Department of Conservation Farmland Mapping and Monitoring Program,[3] and is not zoned or designated in the General Plan for agriculture uses. Given the Urban and Built-Up Land designation of the site, development of the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use, or otherwise result in the loss of Farmland to non-agricultural use. Therefore, ***no impact*** would occur.

b. Currently, the project site is designated Business Commercial per the City's General Plan and zoned Industrial Park. The site is not under a Williamson Act contract and is not zoned for agricultural uses. Therefore, buildout of the proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract, and ***no impact*** would occur.

c,d. The project area is not considered forest land (as defined in Public Resources Code section 12220[g]), timberland (as defined by Public Resources Code section 4526), and is not zoned Timberland Production (as defined by Government Code section 51104[g]). Therefore, the proposed project would have ***no impact*** with regard to conversion of forest

[3] California Department of Conservation. *Contra Costa County Important Farmland 2016.* Available at: https://www.conservation.ca.gov/dlrp/fmmp/Pages/ContraCosta.aspx. August 2018.

land or any potential conflict with forest land, timberland, or Timberland Production zoning.

III. AIR QUALITY. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	✖	☐	☐
b. Result in a cumulatively 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?	☐	✖	☐	☐
c. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	✖	☐
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	✖	☐

a,b. The City of Pittsburg is located in the San Francisco Bay Area Air Basin (SFBAAB), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The SFBAAB area is currently designated as a nonattainment area for the State and federal ozone, State and federal fine particulate matter 2.5 microns in diameter ($PM_{2.5}$), and State respirable particulate matter 10 microns in diameter (PM_{10}) ambient air quality standards (AAQS). The SFBAAB is designated attainment or unclassified for all other AAQS. It should be noted that on January 9, 2013, the U.S. Environmental Protection Agency (USEPA) issued a final rule to determine that the Bay Area has attained the 24-hour $PM_{2.5}$ federal AAQS. Nonetheless, the Bay Area must continue to be designated as nonattainment for the federal $PM_{2.5}$ AAQS until such time as the BAAQMD submits a redesignation request and a maintenance plan to the USEPA, and the USEPA approves the proposed redesignation.

In compliance with regulations, due to the nonattainment designations of the area, the BAAQMD periodically prepares and updates air quality plans that provide emission reduction strategies to achieve attainment of the AAQS, including control strategies to reduce air pollutant emissions through regulations, incentive programs, public education, and partnerships with other agencies. The current air quality plans are prepared in cooperation with the Metropolitan Transportation Commission and the Association of Bay Area Governments (ABAG).

The most recent federal ozone plan is the 2001 Ozone Attainment Plan, which was adopted on October 24, 2001 and approved by the California Air Resources Board (CARB) on November 1, 2001. The plan was submitted to the USEPA on November 30, 2001 for review and approval. The most recent State ozone plan is the 2017 Clean Air Plan (CAP), adopted on April 19, 2017. The 2017 CAP was developed as a multi-pollutant plan that provides an integrated control strategy to reduce ozone, PM, toxic air contaminants (TACs), and greenhouse gases (GHGs). Although a plan for achieving the State PM_{10} standard is not required, the BAAQMD has prioritized measures to reduce PM in developing the control strategy for the 2017 CAP. The control strategy serves as the backbone of the BAAQMD's current PM control program.

The aforementioned air quality plans contain mobile source controls, stationary source controls, and transportation control measures to be implemented in the region to attain the State and federal AAQS within the SFBAAB. Adopted BAAQMD rules and regulations, as well as the thresholds of significance, have been developed with the intent to ensure continued attainment of AAQS, or to work towards attainment of AAQS for which the area is currently designated nonattainment, consistent with applicable air quality plans. The BAAQMD's established significance thresholds associated with development projects for emissions of the ozone precursors reactive organic gases (ROG) and oxides of nitrogen (NO_x), as well as for PM_{10}, and $PM_{2.5}$, expressed in pounds per day (lbs/day) and tons per year (tons/yr), are listed in Table 1. Thus, by exceeding the BAAQMD's mass emission thresholds for operational emissions of ROG, NO_X, PM_{10}, or $PM_{2.5}$ a project would be considered to conflict with or obstruct implementation of the BAAQMD's air quality planning efforts.

Table 1
BAAQMD Thresholds of Significance

	Construction	Operational	
Pollutant	**Average Daily Emissions (lbs/day)**	**Average Daily Emissions (lbs/day)**	**Maximum Annual Emissions (tons/year)**
ROG	54	54	10
NO_x	54	54	10
PM_{10} (exhaust)	82	82	15
$PM_{2.5}$ (exhaust)	54	54	10

Source: BAAQMD, CEQA Guidelines, May 2017.

The proposed project's construction and operational emissions were quantified using the California Emissions Estimator Model (CalEEMod) software version 2016.3.2 – a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions, including GHG emissions, from land use projects. The model applies inherent default values for various land uses, including construction data, trip generation rates, vehicle mix, trip length, average speed, etc. Where project-specific information is available, such information should be applied in the model. It should be noted that construction of the proposed project was modeled to begin in April 2019; although project construction would begin after April 2019, the use of an earlier construction start date provides for a conservative analysis of construction-related emissions. The proposed project's modeling assumed the following:

- The land use "industrial park" was applied to the model;
- Construction would begin in April of 2019;
- Construction would occur over an approximately 5-month period;
- The CO_2 intensity factor was adjusted to reflect PG&E's progress towards the State renewable portfolio standards goal by the operational year (anticipated to be 2020);
- Grading activities would disturb a total of 7.75 acres of land;
- A total of 40 cubic yards of material would be exported during site preparation;
- The project would be located 0.2-mile from the nearest bus stop;

- The project would include an on-site pedestrian network and connections to the surrounding areas; and
- The proposed project would comply with the 2016 California Building Energy Efficiency Standards Code.

All CalEEMod results are included in Appendix A.

The proposed project's estimated emissions associated with construction and operations are presented and discussed in further detail below. A discussion of the proposed project's contribution to cumulative air quality conditions is provided below as well.

Construction Emissions

According to the CalEEMod results, the proposed project would result in maximum unmitigated construction criteria air pollutant emissions as shown in Table 2. As shown in the table, the proposed project's construction emissions would be below the applicable thresholds of significance for ROG, PM_{10}, and $PM_{2.5}$. However, NO_x emissions related to construction of the proposed project would slightly exceed the applicable BAAQMD threshold of significance.

Table 2
Maximum Unmitigated Construction Emissions (lbs/day)

Pollutant	Proposed Project Emissions	Threshold of Significance	Exceeds Threshold?
ROG	20.76	54	**NO**
NO_X	54.58	54	**YES**
PM_{10} (exhaust)	4.19	82	**NO**
PM_{10} (fugitive)	6.54	None	**N/A**
$PM_{2.5}$ (exhaust)	3.87	54	**NO**
$PM_{2.5}$ (fugitive)	3.39	None	**N/A**

Source: CalEEMod, February 2019 (see Appendix A).

All projects under the jurisdiction of the BAAQMD are required to implement all of the BAAQMD's Basic Construction Mitigation Measures, which include the following:

1. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
2. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
3. All vehicle speeds on unpaved roads shall be limited to 15 mph.
4. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
5. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of

Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

6. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
7. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

The proposed project's required implementation of the BAAQMD's Basic Construction Mitigation Measures listed above would reduce the construction-related emissions from the levels estimated and presented in Table 2. However, the proposed project could still result in emissions above the applicable threshold of significance for construction NO_x. Therefore, the proposed project would be considered to result in a potentially significant air quality impact during construction.

Operational Emissions

According to the CalEEMod results, the proposed project would result in maximum unmitigated operational criteria air pollutant emissions as shown in Table 3. As shown in the table, the proposed project's operational emissions would be below the applicable thresholds of significance.

Table 3
Unmitigated Maximum Operational Emissions

Pollutant	Proposed Project Emissions		Threshold of Significance		Exceeds Threshold?
	lbs/day	tons/yr	lbs/day	tons/yr	
ROG	4.13	0.67	54	10	**NO**
NO_X	6.35	0.90	54	10	**NO**
PM_{10} (exhaust)	0.09	0.01	82	15	**NO**
PM_{10} (fugitive)	3.69	0.50	None	None	**N/A**
$PM_{2.5}$ (exhaust)	0.08	0.01	54	10	**NO**
$PM_{2.5}$ (fugitive)	0.99	0.13	None	None	**N/A**

Source: CalEEMod, February 2019 (see Appendix A).

Because the proposed project's operational emissions would be below the applicable thresholds of significance, the proposed project would not be considered to conflict with air quality plans during project operations.

Cumulative Emissions

Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By nature, air pollution is largely a cumulative impact. A single project is not sufficient in size to, by itself, result in nonattainment of AAQS. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then

the project's impact on air quality would be considered significant. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. The thresholds of significance presented in Table 1 represent the levels at which a project's individual emissions of criteria air pollutants or precursors would result in a cumulatively considerable contribution to the SFBAAB's existing air quality conditions. If a project exceeds the significance thresholds presented in Table 1, the proposed project's emissions would be cumulatively considerable, resulting in significant adverse cumulative air quality impacts to the region's existing air quality conditions. The proposed project would be below all applicable thresholds for criteria pollutants during operation, and would be below most thresholds during construction. However, because the proposed project would result in emissions above the applicable thresholds of significance for construction-related NO_X emissions, the project could result in a cumulatively considerable contribution to the region's existing air quality conditions.

Conclusion

As stated previously, the applicable regional air quality plans include the 2001 Ozone Attainment Plan and the 2017 CAP. Because the proposed project would result in short-term construction-related emissions of NO_X, an ozone precursor, above the applicable threshold of significance, the project could conflict with or obstruct implementation of regional air quality plans. Therefore, the proposed project could contribute to the region's nonattainment status of ozone, thus contributing to the violation of an air quality standard, and a ***potentially significant*** impact associated with construction-related emissions of NO_X would result.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the construction-related emissions of NO_X from 54.58 lbs/day to 51.30 lbs/day, which would be below BAAQMD's threshold of significance of 54 lbs/day. Thus, implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

III-1. *Prior to approval of any grading plans, the project applicant shall show on the plans via notation that the contractor shall ensure that all heavy-duty diesel-powered equipment (e.g., rubber-tired dozers, scrapers, cranes, etc.) to be used in the construction of the project (including owned, leased, and subcontractor vehicles) shall, at a minimum, meet U.S. Environmental Protection Agency standards for Tier 2 engines or equivalent. The plans shall be submitted to the Community Development Department for review and approval.*

c. Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Sensitive receptors are typically defined

as facilities where sensitive receptor population groups (i.e., children, the elderly, the acutely ill, and the chronically ill) are likely to be located. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, playgrounds, childcare centers, retirement homes, convalescent homes, hospitals, and medical clinics. The nearest existing sensitive receptors would be the single-family residences located south of the project site, across the Southern Pacific Railroad tracks.

The major pollutant concentrations of concern are localized carbon monoxide (CO) emissions and toxic air contaminant (TAC) emissions, which are addressed in further detail below.

Localized CO Emissions

Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. High levels of localized CO concentrations are only expected where background levels are high, and traffic volumes and congestion levels are high. Emissions of CO are of potential concern, as the pollutant is a toxic gas that results from the incomplete combustion of carbon-containing fuels such as gasoline or wood.

In order to provide a conservative indication of whether a project would result in localized CO emissions that would exceed the applicable threshold of significance, the BAAQMD has established screening criteria for localized CO emissions. According to BAAQMD, a proposed project would result in a less-than-significant impact related to localized CO emission concentrations if all of the following conditions are true for the project:

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

As discussed in Section XVII, Transportation, of this Initial Study, the proposed project would generate fewer than 100 trips in the peak hour. Given that the project would generate fewer than 100 peak hour trips and would be consistent with the site's current General Plan land use designation, the project would not conflict with the Contra Costa County Transportation Commission Congestion Management Plan (CMP).[4] In addition, the City's General Plan shows that projected daily traffic volumes at the nearby intersection on East Leland Road will reach 31,800 daily trips by 2025. Given that the proposed project would generate less than 100 peak hour trips, the project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour. Furthermore, areas where

[4] Contra Costa Transportation Authority. *2017 Update of the Contra Costa Congestion Management Program* [pg. 72]. December 2017.

vertical and/or horizontal mixing is limited due to tunnels, underpasses, or similar features do not exist in the project area. As such, the proposed project would not be expected to expose sensitive receptors to substantial concentrations of localized CO.

TAC Emissions

Another category of environmental concern is TACs. The CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (Handbook) provides recommended setback distances for sensitive land uses from major sources of TACs, including, but not limited to, freeways and high traffic roads, distribution centers, and rail yards. The CARB has identified diesel particulate matter (DPM) from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Health risks associated with TACs are a function of both the concentration of emissions and the duration of exposure, where the higher the concentration and/or the longer the period of time that a sensitive receptor is exposed to pollutant concentrations would correlate to a higher health risk.

The operation of the proposed project would involve heavy duty truck trips to and from the project site. Heavy duty trucks accessing the site are anticipated to be diesel fueled, and, thus, would constitute a source of DPM. The CARB considers land uses that experience 100 daily heavy duty truck trips or more to be a significant source of DPM. Because the proposed project would not result in more than 100 total daily trips, the proposed project would not experience 100 or more heavy duty truck trips per day to the site, operation of the proposed project would not be considered a substantial source of DPM.

The proposed project does not include any other operational activities that would be considered a substantial source of TACs. Accordingly, operations of the proposed project would not expose sensitive receptors to excess concentrations of TACs.

Short-term, construction-related activities could result in the generation of TACs, specifically DPM, from on-road haul trucks and off-road equipment exhaust emissions. Construction is temporary and occurs over a relatively short duration in comparison to the operational lifetime of the proposed project. Health risks are typically associated with exposure to high concentrations of TACs over extended periods of time (e.g., 30 years or greater), whereas the construction period associated with the proposed project would be likely be limited to one year.

All construction equipment and operation thereof would be regulated per the In-Use Off-Road Diesel Vehicle Regulation, which is intended to help reduce emissions associated with off-road diesel vehicles and equipment, including DPM. Project construction would also be required to comply with all applicable BAAQMD rules and regulations, particularly associated with permitting of air pollutant sources.

Because construction equipment on-site would operate intermittently throughout the day and at varying locations within the site, associated emissions of DPM would not occur at

the same location (or be evenly spread throughout the entire project site) for long periods of time. Due to the temporary nature of construction and the relatively short duration of potential exposure to associated emissions, the potential for any one sensitive receptor in the area to be exposed to concentrations of pollutants for a substantially extended period of time would be low. Therefore, construction of the proposed project would not be expected to expose nearby sensitive receptors to substantial pollutant concentrations.

Conclusion

Based on the above discussion, the proposed project would not expose any sensitive receptors to substantial concentrations of localized CO or TACs during construction or operation. Therefore, the proposed project would result in a ***less-than-significant*** impact related to the exposure of sensitive receptors to substantial pollutant concentrations.

d. Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, quantitative methodologies to determine the presence of a significant odor impact do not exist. Typical odor-generating land uses include, but are not limited to, wastewater treatment plants, landfills, and composting facilities. The proposed project would not introduce any such land uses and is not located in the vicinity of any such existing or planned land uses.

Per the BAAQMD CEQA Guidelines, odors are generally regarded as an annoyance rather than a health hazard.[5] Manifestations of a person's reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The presence of an odor impact is dependent on a number of variables including: the nature of the odor source; the frequency of odor generation; the intensity of odor; the distance of odor source to sensitive receptors; wind direction; and sensitivity of the receptor.

Construction activities often include diesel fueled equipment and heavy-duty trucks, which could create odors associated with diesel fumes that may be considered objectionable. However, as discussed above, construction activities would be temporary, and hours of operation for construction equipment would be restricted to the hours of 8:00 AM to 5:00 PM, in accordance with Section 18.82.040 of the City's Municipal Code. Project construction would also be required to comply with all applicable BAAQMD rules and regulations, particularly associated with permitting of air pollutant sources. The aforementioned regulations would help to minimize emissions, including emissions leading to odors. Accordingly, substantial objectionable odors would not be expected to occur during construction activities.

It should be noted that BAAQMD regulates objectionable odors through Regulation 7, Odorous Substances, which does not become applicable until the Air Pollution Control Officer (APCO) receives odor complaints from ten or more complainants within a 90-day period. Once effective, Regulation 7 places general limitation on odorous substances

[5] Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines* [pg. 7-1. May 2017.

and specific emission limitations on certain odorous compounds, which remain effective until such time that citizen complaints have been received by the APCO for one year. The limits of Regulation 7 become applicable again when the APCO receives odor complaints from five or more complainants within a 90-day period. Thus, although not anticipated, if odor complaints are made after the proposed project is developed, the BAAQMD would ensure that such odors are addressed and any potential odor effects reduced to less than significant.

For the aforementioned reasons, construction and operation of the proposed project would not result in emissions (such as those leading to odors or dust) adversely affecting a substantial number of people, and a ***less-than-significant*** impact would result.

IV. BIOLOGICAL RESOURCES. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	✖	☐	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	✖	☐	☐
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	✖	☐	☐
d. Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	☐	☐	✖	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	✖	☐
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	✖	☐

Discussion

a. Special-status species are plants and animals that are legally protected under the State and/or Federal Endangered Species Act (FESA) or other regulations. The FESA of 1973 declares that all federal departments and agencies shall utilize their authority to conserve endangered and threatened plant and animal species. The California Endangered Species Act (CESA) of 1984 parallels the policies of FESA and pertains to native California species.

Special-status species include the following:

- Plant and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the federal and State Endangered Species Acts. Both acts afford protection to listed species;

- California Department of Fish and Wildlife (CDFW) Species of Special Concern, which are species that face extirpation in California if current population and habitat trends continue;
- U.S. Fish and Wildlife Service (USFWS) Birds of Conservation Concern;
- Sensitive species included in USFWS Recovery Plans; and
- CDFW special-status invertebrates.

Although CDFW Species of Special Concern generally do not have special legal status, they are given special consideration under CEQA. In addition to regulations for special-status species, most birds in the U.S., including non-status species, are protected by the Migratory Bird Treaty Act (MBTA) of 1918. Under the MBTA, destroying active nests, eggs, and young is illegal. In addition, plant species on California Native Plant Society (CNPS) Lists 1 and 2 are considered special-status plant species and are protected under CEQA.

The CDFW Natural Diversity Database (CNDDB) was used to determine what special-status species are known to have occurred within a five-mile radius of the project site. Additionally, a planning survey of the project site was conducted on December 5, 2018. The CNDDB query returned 33 total species that would have the potential to occur in the project area, 17 of which are plants and 16 of which are animals. The habitat requirements of all the identified species were subsequently compared to the habitat on the project site to determine the likelihood of each special-status species occurring at the project site. It should be noted that the project site is within the boundaries of the East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan (ECCC HCP/NCCP).

According to Figure 3-3: *Landcover in the Inventory Area* of the ECCC HCP/NCCP, 7.40 acres of the project site are classified as ruderal and 0.213 acres are riparian woodland/scrub. The Physical and Biological Resources Chapter of the ECCC HCP/NCCP defines ruderal sites as disturbed areas characterized by sparse nonnative, typically weedy vegetation.[6] Most ruderal areas are vacant parcels surrounded by developed areas. The ruderal land cover type is relatively common in the inventory area, covering 6,188 acres. The small portion of the site that is classified riparian woodland/scrub is primarily due to the presence of Kirker Creek to the west of the lots. The riparian woodland/scrub land cover type is dominated by woody vegetation associated with streams and water sources. The land cover typically contains trees and an understory of shrubs and forbs. The site is surrounded by ruderal and urban land types.

Special-Status Plants

Of the 17 special-status plants which are known to have occurred within a five-mile radius of the project site, none are present on the project site. Habitat requirements for the 17 special-status plants removed from consideration included the presence of alkali

[6] East Contra Costa County Conservancy. *Final East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan, Chapter 3 Physical and Biological Resources [p. 3-25]*. Updated December 19, 2006.

grasslands, oak woodlands, serpentine soils, interior dunes, slopes, chaparral, valley and foothill grassland, and coastal salt marsh. The project site does not contain any of the aforementioned key habitat requirements, and therefore the project site is not considered to be habitat for most species in the vicinity of the project. Heavy site disturbance caused by disking and the surrounding developed habitat makes the presence of the 17 special-status plants unlikely.

Special-Status Wildlife

The project site meets the habitat requirements for three of the 16 animal species with possibility to occur in the area. The project site's disturbed grassland/ruderal vegetation could provide marginal foraging habitat for the Swainson's hawk (*Buteo swainsoni*), a State threatened species, and possible foraging or nesting habitat for the western burrowing owl (*Athene cunicularia*), a California bird species of special concern. Furthermore, other avian species protected by the MBTA could use trees in the vicinity as nesting habitat.

Swainson's Hawk

Swainson's hawk is a State Threatened species and is a federal Bird of Conservation Concern. The species nests in western North America from March to July and migrates to South America for the winter. The species generally nests in riparian areas or in large isolated trees adjacent to, or within easy flying distance to, agricultural areas providing suitable foraging habitat. Swainson's hawk is unlikely to nest or forage within the project site due to the marginal quality of foraging habitat present and the lack of on-site trees available for nesting. However, the possibility of the species using the site for nesting cannot be entirely ruled out. In the event that an active nest of the species is present within 1,000 feet of the project site, construction activities could result in the noise-related abandonment of an active nest, which would constitute a potentially significant impact.

Western Burrowing Owl

The project site is located within the modeled suitable habitat of the western burrowing owl. The nearest recorded occurrence of western burrowing owls is located 2.2 miles east of the project site. During the planning survey, the project site and a 500-foot buffer surrounding the site were surveyed for burrowing owls and for burrows capable of supporting burrowing owls. Neither owls nor burrows were observed within the project site or surrounding areas. Historic imagery indicates that the project site and surrounding ruderal grasslands have been disked annually since 2002. Thus, little potential exists for western burrowing owls to occur within the project site as either a breeder or wintering individual. The ruderal grasslands within and adjacent to the project site provide marginal foraging habitat for the species. Nonetheless, if western burrowing owls were to utilize the ruderal lot for foraging and/or breeding, construction of the proposed project could disturb and impact the species.

Nesting Raptors and Migratory Birds

Trees, shrubs, and grasslands on the site and along the project frontages may be used by other raptors and migratory birds protected by the MBTA. Construction activities that adversely affect the nesting success of raptors and migratory birds (i.e., lead to the abandonment of active nests) or result in mortality of individual birds constitute a violation of State and federal laws. Thus, project-related activities that would occur during the breeding season could result in an adverse effect to species protected under the MBTA, should such species be present.

If the necessary preconstruction surveys are not carried out, the project could result in a ***potentially significant*** adverse effect, either directly or indirectly, on species identified as candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the USFWS, or the California Department of Fish and Wildlife (CDFW).

Mitigation Measure(s)
Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

Swainson's Hawk

IV-1. *Prior to any ground disturbance related to covered activities that occurs during the nesting season (March 15 – September 15), a qualified biologist shall conduct a preconstruction survey no more than one month prior to construction to establish whether Swainson's hawk nests within 1,000 feet of the project site are occupied. If potentially occupied nests within 1,000 feet are off the project site, then their occupancy shall be determined by observation from public roads or by observations of Swainson's hawk activity (e.g., foraging) near the project site. If nests are occupied, minimization measures and construction monitoring are required (see below). A written summary of the survey results shall be submitted to the City of Pittsburg Community Development Department.*

During the nesting season (March 15 – September 15), covered activities within 1,000 feet of occupied nests or nests under construction shall be prohibited to prevent nest abandonment. If site-specific conditions or the nature of the covered activity (e.g., steep topography, dense vegetation, limited activities) indicate that a smaller buffer could be used, the Implementing Entity will coordinate with CDFW/USFWS to determine the appropriate buffer size.

If young fledge prior to September 15, covered activities shall proceed normally. If the active nest site is shielded from view and noise from the project site by other development, topography, or other features, the project applicant may apply to the City of Pittsburg Community Development Department for a waiver of this avoidance measure. Any waiver must also

be approved by USFWS and CDFW. While the nest is occupied, activities outside the buffer can take place.

Western Burrowing Owl

IV-2. *The project applicant shall retain a qualified biologist to conduct a pre-construction survey for western burrowing owls within the disturbance footprint and within 500 feet from the perimeter of the footprint where possible. Surveys shall take place no more than 30 days prior to construction and shall be conducted near sunrise or sunset in accordance with CDFW guidelines. All burrows or burrowing owls shall be identified and mapped. During the breeding season (February 1 to August 31), surveys shall document whether burrowing owls are nesting in or directly adjacent to disturbance areas. During the nonbreeding season (September 1 to January 31), surveys shall document whether burrowing owls are using habitat in or directly adjacent to any disturbance area. Survey results shall be valid only for the season (breeding or nonbreeding) during which the survey is conducted. Surveys shall be submitted to the City Community Development Department for review. If the survey does not identify any nesting burrowing owls on the project site, further mitigation is not required.*

If burrowing owls are found during the breeding season (February 1 to August 31), the project proponent shall avoid all nest sites that could be disturbed by project construction during the remainder of the breeding season or while the nest is occupied by adults or young. Avoidance shall include establishment of a non-disturbance buffer zone of at least 250 feet around each occupied burrow (nest site) in which no construction activities shall occur. The buffer shall be delineated by highly visible, temporary construction fencing.

If burrowing owls are found during the nonbreeding season (September 1 to January 31), the project proponent shall avoid the owls and the burrows they are using, if possible. Avoidance shall include the establishment of a buffer zone of 160 feet around each burrow. The buffer shall be delineated by highly visible, temporary construction fencing.

If occupied burrows for burrowing owls are not avoided, passive relocation shall be implemented. Owls shall be excluded from burrows in the immediate impact zone and within a 160-foot buffer zone by installing one-way doors in burrow entrances. The doors shall be in place for 48 hours prior to excavation. The project area shall be monitored daily for 1 week to confirm that the owl has abandoned the burrow. Whenever possible, burrows shall be excavated using hand tools and refilled to prevent reoccupation (California Department of Fish and Game 1995). Plastic

tubing or a similar structure shall be inserted in the tunnels during excavation to maintain an escape route for any owls inside the burrow.

Nesting Migratory Birds

IV-3. *A pre-construction survey for nesting birds shall be conducted by a qualified biologist within on-site ground-nesting habitat and a 250-foot buffer around the project site boundaries, if feasible, not more than 14 days prior to site disturbance during the breeding season (February 1st to August 31st). If site disturbance commences outside the breeding season, a pre-construction survey for nesting birds is not required. If active nests of migratory birds are not detected within approximately 250 feet of the project site, further mitigation is not required. Results of the pre-construction survey shall be submitted to the City's Community Development Department for verification.*

If nesting raptors or other migratory birds are detected on or adjacent to the site during the survey, the City's Community Development Department shall be notified, and an appropriate construction-free buffer shall be established around all active nests. Actual size of the buffer would be determined by the project biologist, and would depend on species, topography, and type of activity that would occur in the vicinity of the nest. Typical buffers are 25 feet for non-raptors and up to 250 feet for raptors. The project buffer would be monitored periodically by the project biologist to ensure compliance. After the nesting is completed, as determined by the biologist, the buffer would no longer be required. Buffers shall remain in place for the duration of the breeding season or until a qualified biologist has confirmed that all chicks have fledged and are independent of their parents.

b,c. Kirker Creek is located to the west of Building A and D. The Creek is considered a third order or higher intermittent stream and has a required setback of 50 feet from the top of the bank, per Table 6-2 and Conservation Measure 1.7 of the ECCC HCP/NCCP. As proposed, the project would result in disturbance of a total of 0.37 acres of ruderal habitat and a total of 0.21 acres of riparian woodland habitat within the required setback. Additionally, the concrete lined channel adjacent to Buildings C and D has a required setback of 20 feet from the top of the bank, per Table 6-2 and Conservation Measure 1.7 of the ECCC HCP/NCCP. Implementation of the proposed project would disturb a total of 0.16 acres of ruderal habitat within the channel setback.

As such, the project would not meet the setback requirements for the above stream features and would necessitate an exception to the setback requirements. When a proposed project is granted an exception to the ECCC HCP/NCCP stream setback requirements, the applicant is required to mitigate for the loss of stream buffer habitat by restoring riparian vegetation on site or off-site at a 0.5 to 1 ratio or pay a fee of one half the riparian impact fee per acre of setback encroachment. The project applicant and the City of Pittsburg

propose an exception to the stream setback requirement. The applicant would pay additional fees to address setback encroachment on both Kirker Creek and the unnamed concrete lined channel.

The proposed project would also take measures to ensure that construction would not involve the fill of water of the United States. All covered activities would be required to adhere to Conservation Measure 2.12, which ensures that all wetlands, ponds, streams, and riparian woodland be temporarily staked, as well as fenced off between the edge of the buffer zone and the project site. Trash and discharge would be properly disposed and would not pollute the riparian or stream area. Furthermore, as discussed in Section X, Hydrology and Water Quality, the proposed project would adhere to the City's NPDES permit requirements and would account for erosion control so as not to pollute streams and waters.

While the proposed project would adhere to the City and the ECCC HCP/NCCP requirements for protection of streams and riparian areas, disruption of the stream setback zone would be unavoidable, and thus, the proposed project could have an adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations, as well as on state or federally protected wetlands. Thus, a ***potentially significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level because payment of the applicable fees would offset any impacts associated with encroachment of the stream setback, per Section 6.4.1 of the ECCC HCP/NCCP.

IV-4. *The proposed project shall establish a 50-foot stream setback from the top of bank along Kirker Creek and a 20-foot setback from the associated concrete-lined channel. If the proposed project would encroach on the stream setback, the applicant shall pay additional fees to address setback encroachment on both Kirker Creek and the concrete-lined channel.*

Prior to the issuance of grading or construction permits, the applicant shall pay the applicable ECCC HCP/NCCP fees in effect at the time of permit issuance. The current fees are as follows: $39,341.26 per acre of stream setback encroachment, $78,682.52 per acre of riparian woodland/scrub habitat disturbance, and $7,862.89 per acre of development within Zone 3. Thus, based on the current fees, the applicant would pay the following amounts: $20,850.87 for 0.53 acres of stream setback encroachment, $16,759.38 for 0.213 acres of riparian/woodland scrub habitat disturbance, and $59,836.59 for 7.61 acres of development within Zone 3 for a total of $97,446.84 in fees.

Alternately, the project applicant may, in accordance with the terms of PMC Chapter 15.108, offer to dedicate land or create and restore wetlands in lieu of some or all of the mitigation fees. All applicable mitigation fees

shall be paid, or an "in-lieu-of fee" agreement executed, prior to the issuance of a grading permit for the project.

The Pittsburg Community Development Department and the Contra Costa County Conservancy shall approve the final method of compliance with the ECCC HCP/NCCP provisions.

d. The project site is located in an urbanized area and is bordered by existing roadways to the north, commercial and industrial developments to the north, east, and west, as well as residential development to the south. Thus, the developed portions of the surrounding area do not support any wildlife movement corridors. Although the majority of the area surrounding the project site is developed and does not contain wildlife movement corridors, the project site is adjacent to Kirker Creek, which could provide a movement corridor for some aquatic species. However, based on the site visit and CNDDB conducted as part of the Planning Survey Report prepared by Swaim Biological, Inc., aquatic species have not been found in the vicinity of the project site or been known to use Kirker Creek as a movement corridor. Additionally, the proposed project would mitigate for any impacts to special-status species and aquatic habitats through site-specific pre-construction surveys, avoidance measures, and payment of applicable mitigation fees. As such, the project would not interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites. Thus, a ***less-than-significant*** impact would occur.

e. Chapter 18.84 Article XIX of the City's Municipal Code includes tree preservation and protection measures. However, the project site is vacant, cleared, and regularly disked. The proposed project would not include removal of any trees. Thus, the proposed project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation ordinance, and a ***less-than-significant*** impact would occur.

f. The ECCC HCP/NCCP went into effect on June 30, 2000, and the City of Pittsburg approved the implementing ordinance on April 16, 2007. The purpose of the ECCC HCP/NCCP is to preserve high quality habitat for species of concern throughout the plan area. The ECCC HCP/NCCP accomplishes habitat protection through the establishment of preserves and the collection of development fees. Fees are collected based on established fee zones and land cover types, with developments placed in higher quality habitat land cover types incurring higher development fee rates, and developments placed in low quality habitats or urban areas incurring lower development fees or no development fees. Fee zones and land cover types are presented in the *East Contra Costa County HCP/NCCP Development Fee Zones* figure.[7] Figure 9-1 places the project site in Fee Zone 3. Fee Zone 3 requires a payment of $7,862.89 per acre. Additionally, as discussed above, the proposed project would result in disruption within the stream setback and would be required to mitigate through payment of fees for not meeting the setback requirements. Thus, in accordance with Mitigation Measure IV-4 above, the project applicant would be required to pay $59,836.59 for Zone 3 fees and $37,610.24 for the wetland mitigation fees, or

[7] East Contra Costa County Conservancy. *High Resolution Development Fee Zone Map*. Accessible at: http://www.co.contra-costa.ca.us/depart/cd/water/HCP/project-permitting.html. Accessed June 2016.

otherwise execute an "in-lieu-of fee" agreement with the East Contra Costa Habitat Conservancy, to mitigate the potential effects of the proposed project. Therefore, the proposed project would not be in conflict with the provisions of an adopted HCP/NCCP, or other approved local, regional or state habitat conservation plan, and would result in a ***less-than-significant*** impact.

V. CULTURAL RESOURCES. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	✖	☐	☐
b. Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5?	☐	✖	☐	☐
c. Disturb any human remains, including those interred outside of dedicated cemeteries.	☐	✖	☐	☐

Discussion

a-c. Historical resources are features that are associated with the lives of historically-important persons and/or historically-significant events, that embody the distinctive characteristics of a type, period, region or method of construction, or that have yielded, or may be likely to yield, information important to the pre-history or history of the local area, California, or the nation. Examples of typical historical resources include, but are not limited to, buildings, farmsteads, rail lines, bridges, and trash scatters containing objects such as colored glass and ceramics.

The General Plan lists Pittsburg as containing multiple historic sites relevant to the history of Pittsburg, including historical resources from the coal and steel eras. As one of the earliest industrial centers in Contra Costa County, the City's historical resources encompass a broad range of activities. Resources include buildings associated with industry, early railroads along Railroad Avenue, military facility Camp Stoneman, and places of entertainment such as the Black Diamond Theater, the Palace Theater, and Vogue Theater.

A records search of the California Historic Resources Information System (CHRIS) was performed by the Northwest Information Center (NWIC) for cultural resource site records and survey reports within the proposed project area.[8] The CHRIS search concluded that the project site does not contain any recorded archaeological resources nor historic buildings or structures included in any lists of historic resources. In addition, a records search by the Native American Heritage Commission (NAHC) of the Sacred Lands File resulted in negative findings of cultural resources on the project site.

However, considering that unknown archaeological resources, including human remains, and/or historic resources have the potential to exist on-site, ground-disturbing activity related to project construction could encounter such resources. Therefore, the proposed project could cause a substantial adverse change in the significance of a historic or archaeological resource pursuant to CEQA Guidelines Section 15064.5 and/or disturb

[8] Northwest Information Center. *Records Search Results for the Proposed Los Medanos Industrial Park Project.* November 27, 2018.

human remains, including those interred outside of formal cemeteries during construction. Thus, impacts could be considered ***potentially significant***.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

V-1. *If any prehistoric or historic artifacts, or other indications of cultural deposits are found once ground disturbing activities are underway, all work within the vicinity of the find(s) shall cease, the Community Development Department shall be notified, and the find(s) shall be immediately evaluated by a qualified archaeologist. If the find is determined to be a historical or unique paleontological or archaeological resource, contingency funding and a time allotment to allow for implementation of avoidance measures or appropriate mitigation shall be made available (CEQA Guidelines Section 15064.5). Work may continue on other parts of the project site while historical or unique archaeological resource mitigation takes place (Public Resources Code Sections 21083 and 21087).*

V-2. *In the event of the accidental discovery or recognition of any human remains, further excavation or disturbance of the find or any nearby area reasonably suspected to overlie adjacent human remains shall not occur until compliance with the provisions of CEQA Guidelines Section 15064.5(e)(1) and (2) has occurred. The Guidelines specify that in the event of the discovery of human remains other than in a dedicated cemetery, no further excavation at the site or any nearby area suspected to contain human remains shall occur until the County Coroner has been notified to determine if an investigation into the cause of death is required. If the coroner determines that the remains are Native American, then, within 24 hours, the Coroner must notify the Native American Heritage Commission, which in turn will notify the most likely descendants who may recommend treatment of the remains and any grave goods. If the Native American Heritage Commission is unable to identify a most likely descendant or most likely descendant fails to make a recommendation within 48 hours after notification by the Native American Heritage Commission, or the landowner or his authorized agent rejects the recommendation by the most likely descendant and mediation by the Native American Heritage Commission fails to provide a measure acceptable to the landowner, then the landowner or his authorized representative shall rebury the human remains and grave goods with appropriate dignity at a location on the property not subject to further disturbances. Should human remains be encountered, a copy of the resulting County Coroner report noting any written consultation with the Native American Heritage Commission shall be submitted as proof of compliance to the City's Community Development Department.*

VI. ENERGY. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	✖	☐
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	✖	☐

Discussion

a,b. The main forms of available energy supply are electricity, natural gas, and oil. A description of the 2016 California Green Building Standards Code and the Building Energy Efficiency Standards, with which the proposed project would be required to comply, as well as discussions regarding the proposed project's potential effects related to energy demand during construction and operations are provided below.

California Green Building Standards Code

The 2016 California Green Building Standards Code, otherwise known as the CALGreen Code (CCR Title 24, Part 11), is a portion of the California Building Standards Code (CBSC), which became effective with the rest of the CBSC on January 1, 2017. The purpose of the CALGreen Code is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices. The provisions of the code apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout California. Requirements of the CALGreen Code include, but are not limited to, the following measures:

- Compliance with relevant regulations related to future installation of Electric Vehicle charging infrastructure in residential and non-residential structures;
- Indoor water use consumption is reduced through the establishment of maximum fixture water use rates;
- Outdoor landscaping must comply with the California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), or a local ordinance, whichever is more stringent, to reduce outdoor water use;
- Diversion of 65 percent of construction and demolition waste from landfills;
- Mandatory periodic inspections of energy systems (i.e., heat furnace, air conditioner, mechanical equipment) for nonresidential buildings over 10,000 sf to ensure that all are working at their maximum capacity according to their design efficiencies; and
- Mandatory use of low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring, and particle board.

Building Energy Efficiency Standards

The 2016 Building Energy Efficiency Standards is a portion of the CBSC, which expands upon energy efficiency measures from the 2013 Building Energy Efficiency Standards resulting in a five percent reduction in energy consumption from the 2013 standards for commercial structures. Energy reductions relative to previous Building Energy Efficiency Standards are achieved through various regulations including requirements for the use of high efficacy lighting, improved water heating system efficiency, and high-performance attics and walls.

Construction Energy Use

Construction of the proposed project would involve on-site energy demand and consumption related to use of oil in the form of gasoline and diesel fuel for construction worker vehicle trips, hauling and materials delivery truck trips, and operation of off-road construction equipment. In addition, diesel-fueled portable generators may be necessary to provide additional electricity demands for temporary on-site lighting, welding, and for supplying energy to areas of the site where energy supply cannot be met via a hookup to the existing electricity grid. Project construction would not involve the use of natural gas appliances or equipment.

Even during the most intense period of construction, due to the different types of construction activities (e.g., site preparation, grading, building construction), only portions of the project site would be disturbed at a time, with operation of construction equipment occurring at different locations on the project site, rather than a single location. In addition, all construction equipment and operation thereof would be regulated per the CARB In-Use Off-Road Diesel Vehicle Regulation, which is intended to reduce emissions from in-use, off-road, heavy-duty diesel vehicles in California by imposing limits on idling, requiring all vehicles to be reported to CARB, restricting the addition of older vehicles into fleets, and requiring fleets to reduce emissions by retiring, replacing, or repowering older engines, or installing exhaust retrofits. The In-Use Off-Road Diesel Vehicle Regulation would subsequently help to improve fuel efficiency and reduce GHG emissions. Technological innovations and more stringent standards are being researched, such as multi-function equipment, hybrid equipment, or other design changes, which could help to reduce demand on oil and emissions associated with construction.

The CARB has recently prepared the *2017 Climate Change Scoping Plan Update* (2017 Scoping Plan),[9] which builds upon previous efforts to reduce GHG emissions and is designed to continue to shift the California economy away from dependence on fossil fuels. Appendix B of the 2017 Scoping Plan includes examples of local actions (municipal code changes, zoning changes, policy directions, and mitigation measures) that would support the State's climate goals. The examples provided include, but are not limited to, enforcing idling time restrictions for construction vehicles, utilizing existing grid power for electric energy rather than operating temporary gasoline/diesel-powered generators, and increasing use of electric and renewable fuel-powered construction equipment. The regulation

[9] California Air Resources Board. *The 2017 Climate Change Scoping Plan Update.* January 20, 2017.

described above, with which the proposed project must comply, would be consistent with the intention of the 2017 Scoping Plan and the recommended actions included in Appendix B of the 2017 Scoping Plan.

Based on the above, the temporary increase in energy use occurring during construction of the proposed project would not result in a significant increase in peak or base demands or require additional capacity from local or regional energy supplies. In addition, the proposed project would be required to comply with all applicable regulations related to energy conservation and fuel efficiency, which would help to reduce the temporary increase in demand.

Operational Energy Use

Following implementation of the proposed project, PG&E would provide electricity and natural gas to the project site. Energy use associated with operation of the proposed project would be typical of warehouse and office space uses, requiring electricity and natural gas for interior and exterior building lighting, heating, ventilation, and air conditioning (HVAC), electronic equipment, machinery, appliances, security systems, and more. Maintenance activities during operations, such as landscape maintenance, would involve the use of electric or gas-powered equipment. In addition to on-site energy use, the proposed project would result in transportation energy use associated with vehicle trips generated by employee commutes and the movement of goods.

The proposed residential project would be subject to all relevant provisions of the most recent update of the CBSC, including the Building Energy Efficiency Standards. Adherence to the most recent CALGreen and the Building Energy Efficiency Standards would ensure that the proposed structures would consume energy efficiently through the incorporation of such features as door and window interlocks, direct digital controls for HVAC systems, and high efficiency outdoor lighting. Required compliance with the CBSC would ensure that the building energy use associated with the proposed project would not be wasteful, inefficient, or unnecessary. In addition, electricity supplied to the project by PG&E would comply with the State's Renewables Portfolio Standard (RPS), which requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020 and to 60 percent by 2030. Thus, a portion of the energy consumed during project operations would originate from renewable sources.

With regard to transportation energy use, the proposed project would comply with all applicable regulations associated with vehicle efficiency and fuel economy. In addition, as discussed in Section XVIII, Transportation, of this IS/MND, the project site is located within close proximity to existing residences, other industrial uses, pedestrian infrastructure, and transit infrastructure. The site's proximity to existing residences and alternative transportation infrastructure could reduce vehicle miles traveled (VMT) by providing access to alternative means of transportation for employees living in close proximity to the project site. The use of alternative means of transportation or the reduction of VMT reduces fuel consumption.

Conclusion

Based on the above, construction and operation of the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources or conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Thus, a ***less-than-significant*** impact would occur.

VII. GEOLOGY AND SOILS. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	✖	☐
ii. Strong seismic ground shaking?	☐	☐	✖	☐
iii. Seismic-related ground failure, including liquefaction?	☐	✖	☐	☐
iv. Landslides?	☐	☐	✖	☐
b. Result in substantial soil erosion or the loss of topsoil?	☐	✖	☐	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	✖	☐	☐
d. Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	✖	☐	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	✖
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	✖	☐	☐

Discussion

ai,aii. According to the City's General Plan, Eastern Contra Costa County, like the San Francisco Bay Area as a whole, is located in seismically active region. Major earthquakes have occurred in the vicinity of Pittsburg in the past and can be expected to occur again the near future. Historically active faults in Contra Costa County include the Concord, Hayward, and Clayton-Marsh Creek-Greenville faults. In addition to the foregoing faults, the San Andreas Fault, located approximately 40 miles west of the project site, is the largest active fault in the region. Although known fault systems exist within proximity to the project site, the project site is not underlain by any faults and fault rupture hazard is not a significant geologic hazard at the site. Nonetheless, due to the site's proximity to nearby active faults, the project site could be subject to moderate to severe (design-level) earthquakes and

associated seismic ground shaking. However, the proposed buildings would be properly engineered in accordance with the CBSC, which includes engineering standards appropriate for the seismic area in which the project site is located. Conformance with the design standards is enforced through building plan review and approval by the City of Pittsburg Building Division prior to the issuance of building permits. Proper engineering of the proposed project would ensure that seismic-related effects would not cause adverse impacts.

Therefore, a ***less-than-significant*** impact would occur related to seismic rupture of a known earthquake fault or strong seismic ground shaking.

aiii,
aiv,c. The potential effects resulting from implementation of the proposed project related to liquefaction, landslides, lateral spreading, and subsidence/settlement are discussed in detail below.

Liquefaction

Soil liquefaction results from loss of strength during cyclic loading, such as that which is imposed by earthquakes. Soils most susceptible to liquefaction are clean, loose, saturated, uniformly graded, and fine-grained sands. Information from the ABAG indicates that portions of the project site may be underlain by liquefiable soils.[10] Due to the potential presence of liquefiable soils underlying the project site, future buildings may be exposed to unstable soils or settlement during seismic shaking. Such soil instability could pose a risk to the proposed structure and future employees.

Landslide

Seismically-induced landslides are triggered by earthquake ground shaking. The risk of landslide hazard is greatest in areas with steep, unstable slopes. The project site is located in a generally level portion of the City, and as recorded on Figure 10-1 of the General Plan, the project site is not in an area of unstable slopes which would subject the proposed project to landslides.

Lateral Spreading

Lateral spreading is horizontal/lateral ground movement of relatively flat-lying soil deposits towards a free face such as an excavation, channel, or open body of water; typically, lateral spreading is associated with liquefaction of one or more subsurface layers near the bottom of the exposed slope. The project site does not contain open faces within a distance considered susceptible to lateral spreading. Nevertheless, because the project site may be subject to liquefaction, should project construction include trenching or excavation activities, lateral spreading could occur.

[10] California Department of Conservation. *DOC Maps*. Available at: https://maps.conservation.ca.gov/#dataviewer. Accessed January 2019.

Subsidence/Settlement

Loose unsaturated sandy soils can settle during strong seismic shaking. The depth to groundwater project site and level of soil cohesion at the project site are currently unknown. Therefore, soils prone to subsidence or settlement may exist within the project site, and the proposed structure could be impacts by such soils.

Conclusion

Based on the above discussion, the proposed project would not result in potential hazards or risks related to landslides and lateral spreading. However, on-site soils may be vulnerable to liquefaction, subsidence or settlement. Therefore, the project could directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving liquefaction, subsidence, or settlement, and could be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site subsidence, liquefaction, or collapse. Thus, a ***potentially significant*** impact would occur.

Mitigation Measure(s)
Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

VII-1. *Prior to grading permit issuance, the applicant shall submit a final geotechnical evaluation of the project site that addresses soil stability including soil expansion, and the potential for lateral spreading, subsidence, liquefaction or collapse. The report shall identify any on site soil and seismic hazards and provide design recommendations for onsite soil and seismic conditions. The geotechnical evaluation shall be reviewed and approved by the Director of Public Works/City Engineer and a qualified Geotechnical Engineer to ensure that all geotechnical recommendations specified in the geotechnical report are properly incorporated and utilized in the project design.*

b. During grading activities associated with development of the proposed project, and prior to overlaying of the ground with impervious surfaces and landscaping elements, topsoil would temporarily be exposed. Thus, the potential exists for wind and water to erode portions of the exposed topsoil during construction, which could adversely affect downstream storm drainage facilities. Impacts related to substantial soil erosion or the loss of topsoil during construction of the proposed project would be ***potentially significant***.

Mitigation Measure(s)
Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

VII-2. *Prior to issuance of grading permits, the project applicant shall submit, for the review and approval by the City Engineer, an erosion and sediment control plan that utilizes standard construction practices to limit the erosion*

effects during construction of the proposed project. Measures shall include, but are not limited to, the following:

- *Hydro-seeding, cribbing, walls, or terracing;*
- *Placement of erosion control measures within drainage ways and ahead of drop inlets;*
- *Directing subcontractors to a single designation "wash-out" location (as opposed to allowing them to wash-out in any location they desire);*
- *The use of siltation fences; and*
- *The use of sediment basins and dust palliatives.*

d. According to the Natural Resource Conservation Service's Web Soil survey, the project site consists of mostly Brentwood clay loam, which could have a high shrink-swell potential.[11] Expansive soils can undergo significant volume change with changes in moisture content. Specifically, such soils shrink and harden when dried and expand and soften when wetted. If structures are underlain by expansive soils, foundation systems must be capable of tolerating or resisting any potentially damaging soil movements, and building foundation areas must be properly drained. Design of the proposed structure without incorporation of such features could expose the proposed structure to potential risks due to expansive soils, should such soils exist within the project site.

Considering the above, without implementation of appropriate design measures, a ***potentially significant*** impact could occur related to being located on expansive soil, as defined in Table 18-1B of the Uniform Building Code, creating substantial direct or indirect risks to life or property.

Mitigation Measure(s)
Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

VII-3. Implement Mitigation Measure VII-1.

e. Sewer collection for the proposed project would be provided by connections to the existing six- and eight-inch sewer lines within Garcia Avenue and Kelley Court. The construction or operation of septic tanks or other alternative wastewater disposal systems is not included as part of the project. Therefore, ***no impact*** regarding the capability of soil to adequately support the use of septic tanks or alternative wastewater disposal systems would occur.

f. While the City of Pittsburg has been known to be the site of archaeological resource discoveries, the General Plan does not list the City as being a potential site for paleontological resources. However, given the potential for archaeological resource discovery in the area as well as the proximity of the project site to Kirker Creek, the

[11] United States Department of Agriculture, Natural Resources Conservation Service. *Web Soil Survey*. Available at: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed February 2019.

possibility exists that paleontological resources could be discovered during grading, paving, and construction of the proposed project.

As noted in the City's General Plan, the City is underlain by alluvium, which consists mainly of unconsolidated gravel, sand, silt, and clay deposits. Such soil types are not considered unique geologic features and are common within the geographic area of the City. Furthermore, the City's General Plan does not note the existence of any unique geologic features within the City. Consequently, implementation of the proposed project would not be anticipated to have the potential to result in direct or indirect destruction of unique geologic features.

Although the proposed project would not have the potential to result in the destruction of unique geologic features, paleontological resources could exist within the project site. Should previously unknown paleontological resources exist within the project site, ground-disturbing activity, such as grading, trenching or excavating, associated with implementation of the proposed project would have the potential to disturb or destroy such features. Consequently, the proposed project could result in the direct or indirect destruction of a unique paleontological resource and a ***potentially significant*** impact could occur.

Mitigation Measure(s)
Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

VII-4. Implement Mitigation Measure V-I.

VIII. GREENHOUSE GAS EMISSIONS. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	✖	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?	☐	☐	✖	☐

a,b. Emissions of greenhouse gases (GHGs) contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on earth. An individual project's GHG emissions are at a micro-scale level relative to global emissions and effects to global climate change; however, an individual project could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact. As such, impacts related to emissions of GHG are inherently considered cumulative impacts.

Implementation of the proposed project would cumulatively contribute to increases of GHG emissions. Estimated GHG emissions attributable to future development would be primarily associated with increases of carbon dioxide (CO_2) and, to a lesser extent, other GHG pollutants, such as methane (CH_4) and nitrous oxide (N_2O) associated with area sources, mobile sources or vehicles, utilities (electricity and natural gas), water usage, wastewater generation, and the generation of solid waste. The primary source of GHG emissions for the project would be mobile source emissions. The common unit of measurement for GHG is expressed in terms of annual metric tons of CO_2 equivalents ($MTCO_2e$/yr).

The proposed project is located within the jurisdictional boundaries of BAAQMD. BAAQMD's approach to developing a threshold of significance for GHG emissions is to identify the emissions level for which a project would not be expected to substantially conflict with existing California legislation adopted to reduce statewide GHG emissions needed to move towards climate stabilization. If a project would generate GHG emissions above the threshold level, the project would be considered to generate significant GHG emissions and conflict with applicable GHG regulations. The BAAQMD threshold of significance for project-level operational GHG emissions is 1,100 $MTCO_2e$/yr.

It should be noted that construction GHG emissions are a one-time release and are, therefore, not typically expected to generate a significant contribution to global climate change. In addition, neither BAAQMD nor the City has adopted thresholds of significance for construction-related GHG emissions; however, the proposed project's construction GHG emissions have been estimated and compared to the BAAQMD's adopted operational threshold of 1,100 $MTCO_2e$/yr. GHG emissions resulting from construction and operations of the proposed project were modeled using the CalEEMod emissions under the same

assumptions as discussed in Section III, Air Quality, of this IS/MND. All modeling outputs are included as Appendix A of this IS/MND.

The project's estimated maximum yearly construction emissions of 207.44 $MTCO_2e$ would be well below BAAQMD's adopted operational threshold of 1,100 $MTCO_2e$/yr. In order to provide a conservative estimate of emissions, the proposed project's construction GHG emissions have been amortized over the anticipated operational lifetime of the project.

The BAAQMD does not recommend any specific operational lifetimes for use in amortizing construction-related GHG emissions; however, the emissions were amortized based off of information from California Executive Order D-16-00 and the US Green Building Council's 2013 report on *The Costs and Financial Benefits of Green Buildings.*[12] In the absence of specific BAAQMD recommendations, the 25 year lifetime is used for analysis. Construction of the proposed project would occur over one year and would result in total GHG emissions of 207.44 $MTCO_2e$. Thus, the total construction emissions amortized over 25 years would be 8.30 $MTCO_2e$/yr. Accordingly, the proposed project would not be expected to have a significant impact related to GHG emissions during construction.

The operational emissions were determined to equal 1,051.18 $MTCO_2e$/yr per year. Consequently, even if project operational and amortized construction emissions were considered together, the total mass emission of 1,059.48 $MTCO_2e$/yr would be below BAAQMD's threshold of 1,100 $MTCO_2e$/yr. Consequently, neither construction nor operations of the proposed project would be anticipated to result in significant emissions of GHGs.

Based on the above, the proposed project would not be considered to generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs; and impacts would be considered ***less than significant***.

[12] Sacramento Metropolitan Air District. *Guide to Air Quality Assessment in Sacramento County*. Available at: http://www.airquality.org/businesses/ceqa-land-use-planning/ceqa-guidance-tools. Accessed February 2019.

IX. HAZARDS AND HAZARDOUS MATERIALS. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	✖	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	☐	☐	✖	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	✖
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	✖	☐
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	✖
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	✖	☐
g. Expose people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires?	☐	☐	✖	☐

Discussion

a. Operations associated with the proposed project would be typical of other industrial uses in the City, and would be governed by the uses permitted for the site per the City's Municipal Code and General Plan. Currently, the site is zoned Industrial Park and designated Business Commercial by the City's General Plan. Per Section 18.54.005 of the Municipal Code, the Industrial Park designation is intended for a wide variety of industrial uses, including, but not limited to, service-oriented commercial and light industrial uses with limited customer presence and turnover, including industrial office centers, research and development facilities, limited industrial activities, and limited warehouse and commercial activities.

Should a tenant of the proposed buildings require the use of hazardous materials, such operations would be regulated through Chapter 18.84, Article VI, of the Municipal Code. Operations involving hazardous materials are required to obtain a Use Permit as well as a

permit under the Uniform Fire Code adopted by the City. To house hazardous materials, a permit is needed from Contra Costa Fire Protection District. The Contra Costa Fire Protection District would review the hazardous materials release plan for the use of hazardous materials on the project site.

While the proposed project would be consistent with the Zoning, and operation of the proposed project would not be expected to require the use of hazardous materials, any use would be subject to review and approval by the Contra Costa Fire Protection District. Therefore, the proposed project would not create a significant hazard to the public or the environment related to such, a ***less-than-significant*** impact would occur.

b. The project site is currently vacant and does not contain any existing permanent structures. Per historical data, the site has been regularly disked since 2002. The site is surrounded by commercial and industrial development; however, none of the surroundings nor the site are included in the California Department of Toxic Substances Control EnviroStor Database.

Construction activities associated with the proposed project would involve the use of heavy equipment, which would contain fuels and oils, and various other products such as concrete, paints, and adhesives. Small quantities of potentially toxic substances (e.g., petroleum and other chemicals used to operate and maintain construction equipment) would be used at the project site and transported to and from the site during construction. However, the project contractor would be required to comply with all California Health and Safety Codes and local City ordinances regulating the handling, storage, and transportation of hazardous and toxic materials.

Because the proposed project would be required to adhere to all relevant guidelines and ordinances regulating the handling, storage, and transportation of hazardous materials, the project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment, and a ***less-than-significant*** impact would occur.

c. The proposed project site is not located within a quarter mile of any existing or proposed schools. The nearest school is the Martin Luther King Jr. High School, located approximately 0.35 mile southeast of the site. Furthermore, as discussed above, hazardous materials would not be emitted during construction or operation of the proposed project. Therefore, the proposed project would have ***no impact*** related to hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

d. The project site has not been identified on any government lists of contaminated sites (including lists compiled pursuant to Government Code Section 65962.5) nor does the site contain any historical environmental conditions.[13]

[13] California Department of Toxic Substances Control. *DTSC's Hazardous Waste and Substances Site List*. Available at: https://www.dtsc.ca.gov/SiteCleanup/Cortese_List.cfm. Accessed February 2019.

Consequently, the proposed project would have a ***less-than-significant*** impact related to being on located on a site which is included on a list of hazardous materials sites, and as a result, create a significant hazard to the public.

e. The nearest airport to the site is the Buchanan Field airport, which is located approximately ten miles west of the site. As such, the project site is not located within two miles of any public airports or private airstrips, and does not fall within an airport land use plan area. Therefore, ***no impact*** related to a safety hazard for people residing or working in the project area related to such would occur.

f. The City of Pittsburg adopted the *City of Pittsburg Emergency Operations Plan* in December 2018. The plan provides a basis for future responses to a wide range of hazards and vulnerabilities. The plan outlines the general authority, organization, and response actions for City of Pittsburg staff when disasters occur. Implementation of the proposed project would not result in any substantial modifications to the existing roadway system or alter the land use designations already analyzed in the Emergency Operations Plan. Thus, the proposed project would not physically interfere with the Emergency Plan. Therefore, the proposed project would not interfere with an emergency evacuation or response plan, and a ***less-than-significant*** impact would occur.

g. The proposed project site is surrounded by urban development, and is located within a developed urban area within the City. Thus, the potential for wildland fires to reach the project site would be relatively limited. According to the California Department of Forestry and Fire Protection (CAL FIRE) Fire and Resource Assessment Program, the proposed project site is not located within a Very High Fire Hazard Severity Zone nor are very high severity hazard zones located in close proximity to the project site.[14] Therefore, the proposed project would not expose people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands, and a ***less-than-significant*** impact would occur.

[14] California Department of Forestry and Fire Protection. *Contra Costa County, Very High Fire Hazard Severity Zones in LRA*. Available at: https://www.fire.ca.gov/fire_prevention/fhsz_maps_contracosta. January 7, 2009.

X. HYDROLOGY AND WATER QUALITY. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	✖	☐	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	✖	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. Result in substantial erosion or siltation on- or off-site;	☐	✖	☐	☐
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	✖	☐	☐
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	✖	☐	☐
iv. Impede or redirect flood flows?	☐	✖	☐	☐
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	✖	☐
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	✖	☐

Discussion

a, ci-ciii. The following discussion provides a summary of the proposed project's potential to violate water quality standards/waste discharge requirement, alter the drainage pattern of the site resulting in erosion or siltation, contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems, or otherwise degrade water quality during construction and operation.

Construction

During the early stages of construction activities, topsoil would be exposed due to grading and excavation of the site. After grading and prior to overlaying the ground surface with impervious surfaces and structures, the potential exists for wind and water erosion to discharge sediment and/or urban pollutants into stormwater runoff, which could adversely affect water quality downstream.

The State Water Resources Control Board (SWRCB) regulates stormwater discharges associated with construction activities where clearing, grading, or excavation results in land disturbance of one or more acres. The City's National Pollutant Discharge Elimination System (NPDES) permit requires applicants to show proof of coverage under the State's General Construction Permit prior to receipt of any construction permits. The State's General Construction Permit requires a Storm Water Pollution Prevention Plan (SWPPP) to be prepared for the site. A SWPPP describes Best Management Practices (BMPs) to control or minimize pollutants from entering stormwater and must address both grading/erosion impacts and non-point source pollution impacts of the development project. Because the proposed project would disturb greater than one acre of land, the proposed project would be subject to the requirements of the State's General Construction Permit and, with implementation of the required SWPPP and BMPs included therein, the proposed project would not result in a violation of water quality standards and/or degradation of water quality.

Operation

Following completion of project buildout, the site would be largely covered with impervious surfaces and topsoil would no longer be exposed. As such, the potential for impacts to water quality would be reduced. However, impervious surfaces on the project site could contribute incrementally to the degradation of downstream water quality through the release of pollutants during storm events. Typical urban pollutants that would likely be associated with the proposed project include sediment, pesticides, oil and grease, metals, and trash.

The City of Pittsburg has adopted the County C.3 Stormwater Standards, which require new development and redevelopment projects that create or alter 10,000 sf or more of impervious area to contain and treat all stormwater runoff from the project site. The proposed project would create a total of 109,884 sf of new impervious surfaces. Thus, the project would be subject to the requirements of the SWRCB and the Regional Water Quality Control Board (RWQCB), including the C.3 Standards, which are included in the City's NPDES General Permit. Compliance with such requirements would ensure that impacts to water quality standards or waste discharge requirements would not occur during operation of the proposed project.

In addition, the proposed project would adhere to Chapter 13.28 of the Municipal Code, which establishes standards for stormwater management and discharge. Prior to issuance of a building permit, the applicant would submit a stormwater control plan that meets the criteria in the most recent version of the Contra Costa Clean Water Program Section C.3 Guidebook. Implementation of an approved stormwater control plan would ensure the project would not deplete surface water quality. All stormwater on the project site would be directed to treatment facilities which would remove pollutants while also metering peak stormwater flows prior to being discharged to the City stormwater system.

Based on the above, the proposed project would comply with the requirements of the SWRCB and RWQCB, and would meet C.3 Standards. Therefore, during operation, the

proposed project would comply with all relevant water quality standards and waste discharge requirement, and would not degrade water quality.

The proposed project would include construction of the following stormwater facilities:

- Building A: Christy V12 and V64 catch basins and an earth swale lined with cobble stone at 1.0% minimum;
- Building B: Christy V64 catch basin and earth swale at 1.0% minimum;
- Building C: Christy V64 catch basin; and
- Building D: Christy V64 catch basin and earth swale lined with cobble stone at 1.0% minimum.

Stormwater falling on to the Building A site would be directed to either the catch basins or cobble stone earth swales on the east side of the proposed building for treatment. The existing 60-foot storm drain would remain on the western side of the proposed building and the proposed project would direct some treated stormwater to the storm drain as well as the drainage easement leading to Kirker Creek.

Building B would continue to use an existing catch basin and storm drain channels, as well as include development of a new Christy V64 catch basin, in order to treat and meter flows to an eight-inch storm drain.

Buildings C and D would include construction of stormwater treatment faculties as well as eight-inch storm drains, connecting to an outfall to drainage channel.

Development of the proposed project would result in an increase in impervious surfaces on the project site, which would alter the existing drainage pattern of the site. However, as discussed above, the project is required to comply with the City's standards for runoff and stormwater control. In addition, the proposed project would be required to submit an erosion and sediment control plan with submittal of the grading permit application. The plan would include erosion and sediment control measures that would be implemented during grading and would be approved by the City Engineer. Consistent with Chapter 13.28 of the Municipal Code, the project would include appropriate site design measures, source controls, and hydraulically-sized stormwater treatment measures to limit the rate and amount of stormwater runoff leaving the site.

Conclusion

Based on the above, the proposed project would comply with all applicable regulations during construction and operation, would not involve uses associated with the generation or discharge of polluted water, and would be designed to adequately treat stormwater runoff from the site prior to discharge. However, disturbance of the on-site soils during construction activities could result in a ***potentially significant*** with regard to violation of water quality standards and degradation of water quality should adequate BMPs not be incorporated during construction in accordance with SWRCB regulations.

Mitigation Measure(s)
Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

X-1. *Prior to issuance of grading permits, the applicant shall prepare a Storm Water Pollution Prevention Plan (SWPPP). The developer shall file the Notice of Intent (NOI) and associated fee to the SWRCB. The SWPPP shall serve as the framework for identification, assignment, and implementation of BMPs. The SWPPP shall be submitted to the Director of Public Works/City Engineer for review and approval and shall remain on the project site during all phases of construction. Following implementation of the SWPPP, the contractor shall subsequently demonstrate the SWPPP's effectiveness and provide for necessary and appropriate revisions, modifications, and improvements to reduce pollutants in stormwater discharges to the maximum extent practicable. The contractor shall implement BMPs to reduce pollutants in stormwater discharges to the maximum extent practicable.*

X-2. *In addition to a SWPPP, prior to issuance of grading permits, the project applicant shall create an interim and final erosion and sediment control plan which shall include a delineation and brief description of the measures to be undertaken to retain sediment on the site, including but not limited to, the design and specifications of berms and sediment detention basins and a schedule for maintenance. The plan shall also contain a delineation and brief description of the surface runoff and erosion control measures, including but not limited to, types and method of applying mulches, and designs and specifications for diverters, dikes, and drains. The plan shall be reviewed and approved by the City Community Development Department.*

X-3. *The project applicant shall submit a complete Stormwater Control Plan and Report compliant with the requirements set forth in the City's most current NPDES permit. The C.3 treatment facilities shall be adequately sized to treat the stormwater runoff from the associated drainage management areas. The grading and/or building plans shall include drawings and specifications necessary to implement all measures in the approved Stormwater Control Plan. Design features shall incorporate low impact development design standards as outlined in the most current edition of the Contra Costa Clean Water Program's C.3 Guidebook. All plans shall be reviewed and approved by the City Community Development Department.*

b,e. Water supplies for the proposed project would be provided by the City of Pittsburg, which purchases raw water from the Contra Costa Water District (CCWD). Such raw water supplies are treated by the City prior to distribution. Per the District's 2015 Urban Water Management Plan (UWMP),[15] the primary water source for the CCWD is the Sacramento-

[15] Contra Costa Water District. *2015 Urban Water Management Plan for the Contra Costa Water District*. June 2016.

San Joaquin Delta as well as the United States Bureau of Reclamation's Central Valley Project. In addition to the District's UWMP, the City developed an individual Urban Water Management Plan.[16] The City overlies the Pittsburg Plain Groundwater Basin and extracts groundwater using two wells. In addition to raw water provided by the CCWD, five to 12 percent (approximately 1,500 to 2,000 acre-feet/year) of the City's water supply consists of groundwater supplies.

Given that the proposed project would be consistent with the site's current General Plan land use and zoning designations, the project would not result in increased use of groundwater supplies beyond what has been anticipated by the City and accounted for in the UWMP. In addition, the proposed industrial use of the project site would be anticipated to require relatively low water demand as water would be used primarily for irrigation, employee restrooms and office uses, and general site maintenance or cleaning. Additionally, because the City does not primarily use groundwater as a supply source, the proposed project would not result in the depletion of groundwater supplies.

Landscaping included in the proposed project would be subject to the water efficiency landscape standards within Section 18.84.310 of the City's Municipal Code. Consequently, the proposed landscaping for the project site has been designed to reduce irrigation water demands from project operation. Consistent with Section 18.84.308 of the City's Municipal Code, landscaping plans for the proposed project will be subject to review and approval by the City to ensure that proposed landscaping complies with all water efficiency requirements imposed by Chapter 18.84.300 of the City's Municipal Code.

Therefore, the proposed project would not substantially decrease groundwater supplies through excess or previously unanticipated water usage nor would the project interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management. In addition, the project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Thus, a ***less-than-significant*** impact would occur.

civ. The General Plan EIR designates the project site as located in the Kirker Creek Watershed. Kirker Creek encompasses the central and eastern portions of the City and drains into New York Slough. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) for the project site, a portion of the site is located within a Special Flood Hazard Zone (Zone AO). Thus, because the proposed project would create new impervious surfaces which could redirect flows, the project could affect the current storm flows.

Although the proposed project is consistent with the General Plan land use designation, and would implement all necessary policies and regulations set forth by the City regarding development in a flood zone, the project would place new structures in a known flood zone. As such, the proposed project would have a ***potentially significant*** impact regarding alteration of the existing drainage pattern of a site or area which would impede or redirect flood flows.

[16] City of Pittsburg. *City of Pittsburg 2015 Urban Water Management Plan Final Draft*. June 2016.

Mitigation Measure(s)
Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

X-3. *Prior to the issuance of a grading permit, a hydraulic study shall be conducted to assess the current streambed flow of Kirker Creek and how the new infrastructure would affect the streambed and/or the 100-year floodplain. If the hydraulic study identifies improvements needed to the Kirker Creek channel, the applicant shall implement the improvements and obtain the necessary permits for work within the flood zone. Furthermore, if the hydraulic study shows that the new infrastructure would affect the 100-year floodplain in a manner that would alter the FEMA flood hazard zone boundaries, the project applicant shall submit a map showing the updated flood hazard zone boundaries to FEMA for flood insurance purposes under the National Flood Insurance Program.*

Although alteration of the on-site flood hazard zone boundaries may occur, improvements that would result in an increase in floodwater surface elevations shall not occur off the project site. In the case that any proposed structures or stormwater basin berms on the project site would be located within the updated flood hazard zone boundaries, the project applicant shall obtain a Conditional Letter of Map Revision Based on Fill from FEMA that demonstrates that all proposed structures would be set above the base flood elevation.

The hydraulic study shall be submitted to the City Engineer and the Community Development Department for review and approval prior to issuance of a grading permit for the site construction.

d. As discussed under question 'civ' above, impacts of the project being located in a flood zone would be minimized upon implementation of City standards and codes for development in a flood hazard zone. Tsunamis are defined as sea waves created by undersea fault movement, whereas a seiche is a long-wavelength, large-scale wave action set up in a closed body of water such as a lake or reservoir. The project area is not located in proximity to a coastline and would not be potentially affected by flooding risks associated with tsunamis. Seiches do not pose a risk to the proposed project, as the project site is not located adjacent to a large closed body of water. Based on the above, the proposed project would not pose a risk related to the release of pollutants due to project inundation due to flooding, tsunami, or seiche, and a ***less-than-significant*** impact would occur.

XI. LAND USE AND PLANNING. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Physically divide an established community?	☐	☐	✖	☐
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	✖	☐

Discussion

a. A project risks dividing an established community if the project would introduce infrastructure or alter land use so as to change the land use conditions in the surrounding community, or isolate an existing land use. The proposed project site does not contain existing housing or other development, and the proposed project would be consistent with the surrounding industrial uses. The proposed project would not alter the existing general development trends in the area or isolate an existing land use. Development of the project site for industrial uses has been planned for within the General Plan and the RASP. As such, the proposed project would not physically divide an established community and a ***less-than-significant*** impact would occur.

b. The proposed project site is currently designated Business Commercial per the City's General Plan and is zoned Industrial Park. Land designated for Business Commercial and Industrial Park uses are intended to provide sites for administrative, business, professional, and public offices, as well as light manufacturing, warehousing, and distribution. Thus, the design and intended use of proposed structure conform with the limits type and intensity of uses anticipated for the site in the General Plan and generally analyzed in the General Plan EIR. The proposed project is also consistent with the RASP, which designates the area the Los Medanos Industrial Center and would adhere to all design standards established by the RASP for business commercial land uses. The standards include setback, height, parking, and landscaping requirements. In addition, the project would be required to comply with all applicable development standards established by Title 18 of the City's Municipal Code, such as maximum lot coverage, maximum building heights, and building setback requirements. Therefore, the proposed project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, and a ***less-than-significant*** impact would occur.

XII. MINERAL RESOURCES. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	✖
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	✖

Discussion

a,b. Per the City's General Plan, the City contains one of the only two places in the San Francisco Bay Area where coal was mined. The discovery of coal in the 1850s led to construction of Black Diamond Mines. However, due to competition from other energy sources, the mine closed in 1949. Currently, the City does not contain any significant mineral deposits or active mining operations. Thus, the proposed project would not result in the loss of availability of a known mineral resource or a locally important mineral resource recovery site, and ***no impact*** would occur.

XIII. NOISE. *Would the project result in:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	✖	☐
b. Generation of excessive groundborne vibration or groundborne noise levels?	☐	✖	☐	☐
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	✖

Discussion

a. The following discussion is based on an Environmental Noise Assessment prepared for the proposed project by Saxelby Acoustics.[17] The report analyzed traffic noise level increases at the project site and compares project generated noise levels to the Pittsburg General Plan Standards, Pittsburg Municipal Code standards, and assesses the potential increase in noise levels. The following sections present information regarding existing sensitive noise receptors in proximity to the project site, the existing noise environment, and the potential for the proposed project to result in impacts during project construction and operation.

Sound is measured using the decibel scale. The scale uses the hearing threshold as a point of reference defined as 0 dB. The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. The following terms are referenced throughout:

- Decibel (dB): A unit of sound energy intensity. An A-weighted decibel (dBA) is a decibel corrected for the variation in frequency response to the typical human ear at commonly encountered noise levels. All references to decibels (dB) will be A-weighted unless noted otherwise.
- Day-Night Average Level (Ldn): The average sound level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 PM to 7:00 AM) hours.
- Equivalent Sound Level (Leq): The average sound level over a given time-period.
- Maximum Sound Level (Lmax): The maximum sound level over a given time-period.

[17] Saxelby Acoustics. *Environmental Noise Assessment Los Medanos Industrial Park*. January 17, 2019.

Significance Criteria

The following are thresholds that would be considered significant regarding noise increases in the vicinity of a sensitive land use:

- Any increase above 60 dBA L_{dn} where the without project noise level is less than 60 dBA L_{dn};
- An increase of 3 dBA L_{dn}, where without project noise level is between 60 to 65 dBA L_{dn}; or
- An increase of 1.5 dBA L_{dn}, where without project noise level is greater than 64 dBA L_{dn}.

City Standards

Policy 12-P-9 limits the generation of loud noises on construction sites adjacent to existing development to normal business hours between 8:00 AM and 5:00 PM.

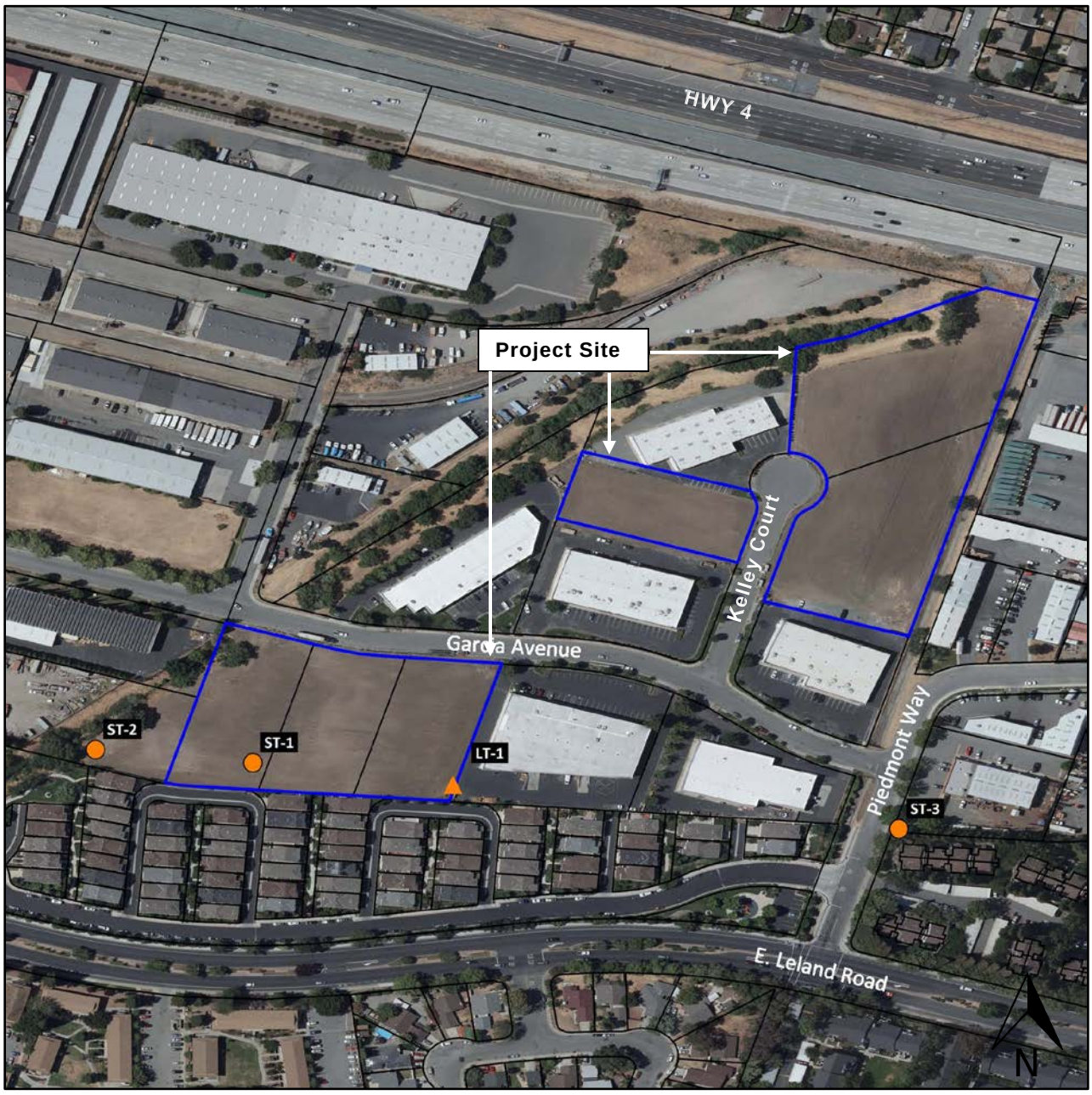
Sensitive Noise Receptors

Some land uses are considered more sensitive to noise than others, and, thus, are referred to as sensitive noise receptors. Land uses often associated with sensitive noise receptors generally include residences, schools, libraries, hospitals, and passive recreational areas. Noise sensitive land uses are typically given special attention in order to achieve protection from excessive noise. In the vicinity of the project site, the nearest existing noise sensitive land uses include the single-family residences to the south of the project site.

Existing Noise Environment

Per the Environmental Noise Assessment, the existing noise environment in the project area is primarily defined by the local roadway network and industrial activity at surrounding facilities. To quantify the existing ambient noise environment in the project vicinity, Saxelby Acoustics conducted continuous noise level measurements at the east property line of proposed Building A, adjacent to an industrial facility with active loading docks. In addition, short-term measurements were conducted adjacent to Stanford Place, near the southern property line of Building A. The noise measurement locations are shown in Figure 6 below. A summary of the existing noise level measurements is provided in Table 4 below.

Figure 6
Noise Measurement Sites



Source: Saxelby Acoustics. 2019

Table 4
Short-Term and Long-Term Measurement Sites

Short-Term Measurement Sites					
Location	**Time**	**L_{eq}**	**L_{50}**	**L_{max}**	**Notes**
ST-1	9:25 AM	69	63	80	Primary noise source is landscaping equipment. Traffic on Garcia Ave.
ST-2	9:39 AM	66	63	76	Primary noise source is activity at Hospital Systems (adjacent)
ST-3	10:30 AM	69	66	79	Primary noise source is machinery at Boilermaker's Local 549. Traffic on Garcia Ave. and Piedmont Way

Long-Term Measurement Site								
Location	**Date**	**L_{dn}**	**Daytime (7 AM-10 PM)**			**Nighttime (10 PM-7 AM)**		
			L_{eq}	**L_{50}**	**L_{max}**	**L_{eq}**	**L_{50}**	**L_{max}**
LT-1	Dec. 12-13, 2018	65	59	57	72	59	58	69

Note: Short-term noise Measurements taken on December 12, 2018
Source: Saxelby Acoustics, 2019.

Project Construction Noise

During the construction of the proposed project, noise from construction activities would temporarily add to the noise environment in the project vicinity. As indicated in Table 5 below, activities involved in construction would generate maximum noise levels ranging from 76 to 90 dBA L_{max} at a distance of 50 feet. Heavy equipment would be used for grading, excavation, paving, and building construction, which would increase ambient noise levels when in use. Noise levels would vary depending on the type of equipment used, how the equipment is operated, and how well the equipment is maintained. In addition, noise exposure at any single point outside the project site would vary depending on the proximity of construction activities to that point. Standard construction equipment, such as graders, backhoes, loaders, and trucks, would be used on-site.

Table 5
Construction Equipment Noise

Type of Equipment	Maximum Level, dB at 50 feet
Backhoe	78
Compactor	83
Compressor (air)	78
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Pneumatic Tools	85

Source: Federal Highway Administration, Roadway Construction Noise Model User's Guide, January 2006.

As one increases the distance between equipment, or increases separation of areas with simultaneous construction activity, dispersion and distance attenuation reduce the effects of combining separate noise sources. The noise levels from a source will decrease at a rate

of approximately 6 dB per every doubling of distance from the noise source. The nearest sensitive receptors to the project site would be the residential units located south of the project site, approximately 60 feet away from the project site. Thus, noise levels experienced at the nearest residences would likely be reduced from the levels depicted in Table 5.

Construction activities are temporary in nature and are restricted to the hour of 8:00 AM and 5:00 PM at sites adjacent to existing development. Furthermore, the proposed project would maintain an existing eight-foot sound wall separating proposed Building A from the nearest sensitive receptors in the multi-family development to the south of the project site, and thus, project construction noise would be less than significant.

Project Operational Noise

The primary source of transportation noise associated with the proposed project would be vehicle traffic to and from the project site, as well as delivery trucks arriving at the loading docks. The Institute of Transportation Engineers Trip Generation Manual concluded that the project would result in fewer than 100 vehicle trips per peak hour to and from the project site, which is not considered a significant increase in traffic in the vicinity.

The primary non-transportation noise source associated with the proposed project would be on-site parking lot circulation. The SoundPLAN noise prediction model was used in the Environmental Noise Assessment to calculate noise levels at the noise sensitive receptors located around the project site. Inputs to the model included ground topography and ground type, noise source locations and heights, receiver locations, and sound power level data.

Heavy Duty Trucks

Operation of heavy duty trucks within the project site would generate noises related to engine noise, back-up beeper, and air-release sounds from brakes. Loading and unloading activities are assumed to occur indoors because trucks would be backed into the loading dock doors. To determine typical loading dock noise levels associated with the proposed loading docks, Saxelby Consultants used data from the Clearlake Walmart store. The noise level measurements were conducted at a distance of 100 feet from the center of the two-bay loading dock and circulation area. The results of the loading dock noise measurements indicate that a busy hour would generate an average noise level of 61 dBA L_{eq}, at a distance of 100 feet from the center of the loading dock truck maneuvering lanes. Additionally, the truck noise from the proposed project would be shielded by the existing sound wall, which would reduce noise levels experienced by sensitive receptors to the south of Building A.

Non-Transportation Noise Increases

Ambient noise measurements at Site LT-1 indicate that existing noise levels are approximately 65 dBA L_{dn}. However, the noise level was measured on the north side of the existing sound wall. In the backyards of the existing residences to the south of the sound wall, existing noise levels are expected to be 10 dBA less, or approximately 55 dBA L_{dn}.

The proposed project is predicted to generate maximum non-transportation noise of 51 dBA L_{dn} at the backyards of the nearest sensitive receptors. With the project contribution of 51 dBA L_{dn}, the existing plus project noise level would be 56 dBA L_{dn}. The distribution of project related noise levels is displayed in Figure 7 below. The total L_{dn} resulting from project generated noise sources is presented in Table 6 below.

Table 6
Increase in L_{dn} With and Without the Proposed Project

Noise Source	L_{dn}, dBA		Increase in L_{dn}, dBA
	Existing	With Project	
Ambient	55	55	
Project Generated Noise	--	51	
Total	55	56	1

Source: Saxelby Acoustics, 2019.

Considering that the existing noise level at the nearest residence is L_{dn} 55 dBA, an increase of more than three dBA would constitute a significant impact. As shown in Table 6, implementation of the proposed project would result in an increase of approximately one dBA.

Conclusion

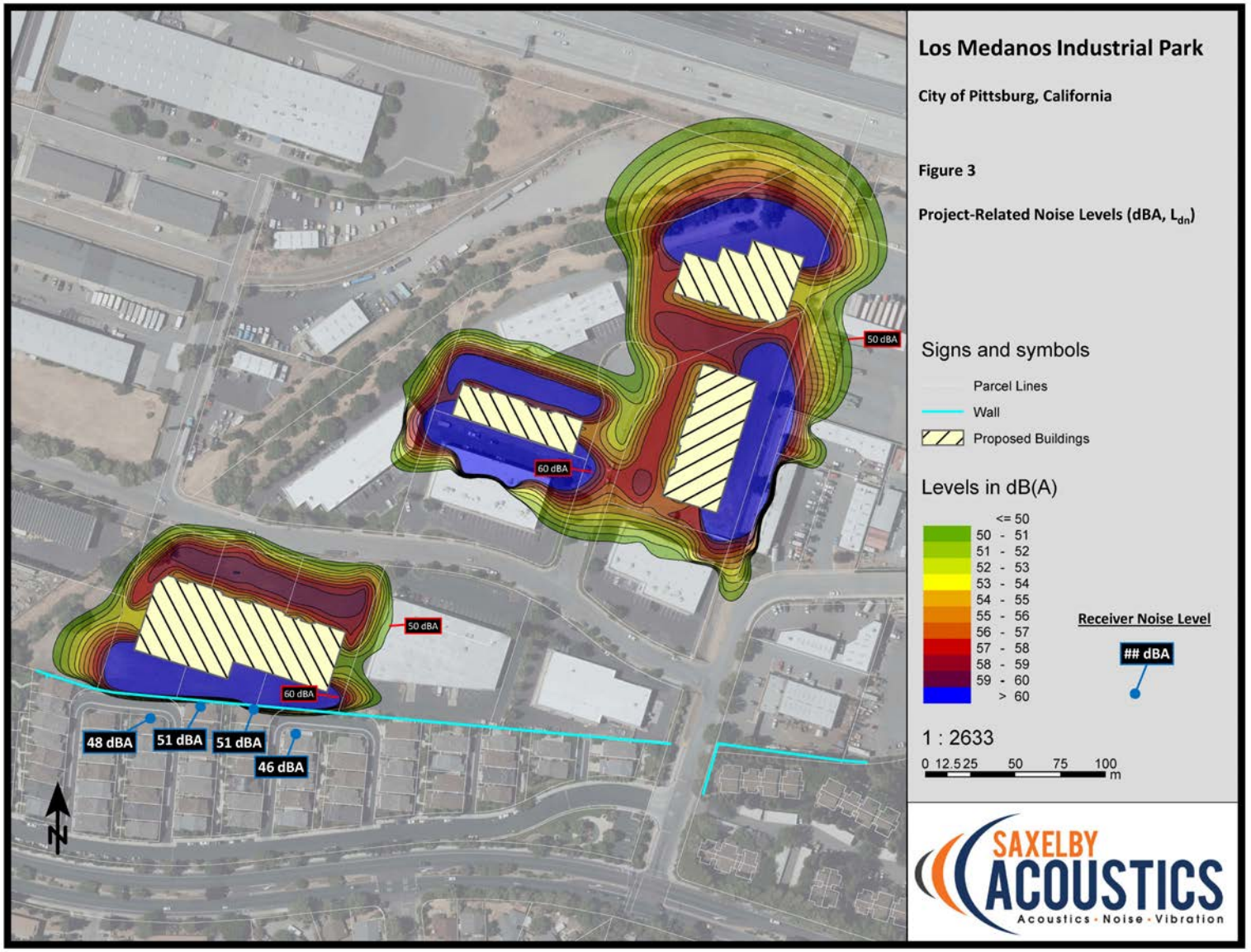
The combination of noise sources discussed above would result in operational noise levels of L_{dn} 51 dBA at the residences to the south. A L_{dn} of 51 dBA does not exceed the City's threshold for normally acceptable noise levels at low density residential developments. Considering the above, and based on the assumed design review by the City, the proposed project would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, and a ***less-than-significant*** impact would occur.

b. Similar to noise, vibration involves a source, a transmission path, and a receiver. However, noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to the vibration depends on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration is measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration in terms of peak particle velocities (PPV) in inches per second (in/sec). Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of PPV.

Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Table 7, which was developed by Caltrans, shows the vibration levels that would normally be required to result in damage to structures. As shown in the table, the threshold for architectural damage to structures is 0.20 in/sec PPV

Figure 7
Project Related Noise Levels



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and continuous vibrations of 0.10 in/sec PPV, or greater, would likely cause annoyance to sensitive receptors.

Table 7
Effects of Vibration on People and Buildings

PPV		Human Reaction	Effect on Buildings
in/sec	mm/sec		
0.15 to 0.30	0.006 to 0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
2.0	0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
2.5	0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of "architectural" damage to normal buildings
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of "architectural" damage to normal dwelling - houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage
10 to 15	0.4 to 0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage

Source: Caltrans. Transportation Related Earthborne Vibrations. TAV-02-01-R9601. February 20, 2002.

The proposed project would only cause elevated vibration levels during construction, as the proposed project would not involve any uses or operations that would generate substantial groundborne vibration. Although noise and vibration associated with the construction phases of the project would add to the noise environment in the immediate project vicinity, construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours. Because the proposed project would not cause continuous, long-term vibrations, the project would not be expected to result in extended annoyance to the nearby sensitive receptors.

The primary vibration-generating activities associated with the proposed project would occur during grading, placement of utilities, and construction of foundations. Table 8 shows the typical vibration levels produced by construction equipment at various distances. The most substantial source of groundborne vibrations associated with project construction would be the use of vibratory compactors. Use of vibratory compactors/rollers could be required during construction of the proposed on-site drive aisles and parking areas, which would extend along the northern, eastern, and southern sides of the project site.

Table 8 Vibration Levels for Various Construction Equipment		
Type of Equipment	**PPV at 25 feet (in/sec)**	**PPV at 50 feet (in/sec)**
Large Bulldozer	0.089	0.029
Loaded Trucks	0.076	0.025
Small Bulldozer	0.003	0.000
Auger/drill Rigs	0.089	0.029
Jackhammer	0.035	0.011
Vibratory Hammer	0.070	0.023
Vibratory Compactor/roller	0.210	0.070
Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Guidelines, May 2006.		

With the exception of vibratory compactors, construction vibration levels anticipated for the project are less than the 0.2 in/sec threshold at distances of 20 feet. However, the proposed project includes parking lot construction which would occur at distances of approximately 10 feet from the adjacent single-family residential uses. At less than 25 feet from the nearest sensitive receptor, the vibratory compactor could be expected to cause vibrations in excess of 0.2 in/sec. Therefore, a ***potentially significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

XIII-1. *Prior to approval of improvement plans, project plans shall specify, through notation, that any compaction required less than 26 feet from the adjacent residential structures to the south shall be accomplished by using static drum rollers which use weight instead of vibrations to achieve soil compactions. As an alternative to this requirement, prior to issuance of a building permit, preconstruction crack documentation and construction vibration monitoring could be conducted to ensure that construction vibrations do not cause damage to any adjacent structures. Documentation and monitoring shall be reviewed and approved by the City Community Development Department.*

c. The nearest airport to the proposed project site is the Buchanan Field Airport, located approximately nine miles west of the site. The site is not covered by an airport land use plan. Given that the project site is not located within two miles of a public airport or public use airport, the proposed project would not expose people residing or working in the project area to excessive noise levels associated with airports. Thus, ***no impact*** would occur.

XIV. POPULATION AND HOUSING. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)?	☐	☐	✖	☐
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	✖

Discussion

a. The proposed project would include the development of four industrial structures on lots designated for such uses. Development of the site for industrial purposes would not result in direct population growth by proposing new homes. Furthermore, because the proposed project conforms with the General Plan and zoning designations for the project site, any indirect population growth due to increased demand for employees has been previously anticipated by the City. Therefore, the proposed project would not induce substantial unplanned population growth either directly or indirectly, and a ***less-than-significant*** impact would occur.

b. The proposed project site is currently vacant, and does not include existing housing or other habitable structures. As such, the proposed project would not displace a substantial number of existing housing or people and would not necessitate the construction of replacement housing elsewhere. Therefore, ***no impact*** would occur.

XV. PUBLIC SERVICES. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Fire protection?	☐	☐	✖	☐
b. Police protection?	☐	☐	✖	☐
c. Schools?	☐	☐	✖	☐
d. Parks?	☐	☐	✖	☐
e. Other Public Facilities?	☐	☐	✖	☐

Discussion

a-e. The Contra Costa County Fire Protection District (CCCFPD) provides fire protection services to the City. CCCFPD receives approximately 42,000 urban fire calls per year from within the County. The CCCFPD operates out of 29 fire stations located throughout the jurisdictional area. The proposed project is located approximately 0.5 mile from the nearest fire station, and would be adequately served by CCCFPD. Additionally, the proposed project would adhere to Chapter 15.20, the Fire Code, of the Municipal Code, which requires the proposed project install a fire sprinkler system and adhere to all fire protection codes established by the CCCFPD.

The proposed project would be serviced by the Pittsburg Police Department, located at 65 Civic Avenue. The General Plan includes Emergency Management goals and policies in Chapter 10.4. The General Plan ensures that emergency response equipment and personnel training are adequate to follow the procedures contained within the Emergency Response Plan. The General Plan also strives to maintain a ration of 1.8 sworn officers per 1,000 residents. Because the proposed project is consistent with the land use and zoning designations and would not directly induce any population growth, the proposed project would be consistent with the City's buildout plan and would not create the need for new or physically altered governmental facilities.

The proposed project is consistent with the site's General Plan land use and zoning designations. As such, buildout of the site, including associated demand for schools and parks has been anticipated by the City and analyzed in the General Plan EIR. Furthermore, the proposed project would not result in direct population growth, and, consequently, would not directly increase the demand for schools, parks or other public facilities. Therefore, the proposed project would have a ***less-than-significant*** impact related to the need for new or physically altered fire protection, police protection, school facilities, parks, or other public facilities, the construction of which could cause significant environmental impacts.

XVI. RECREATION. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	✖	☐
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	✖	☐

Discussion

a,b. The proposed project would include the development of four industrial buildings on lots designated for such uses. The proposed project would not result in population growth that could result in increased demand on existing recreational facilities or cause the construction or expansion of recreational facilities. Thus, a ***less-than-significant*** impact would occur.

XVII. TRANSPORTATION. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	✖	☐
b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	✖	☐
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	✖	☐
d. Result in inadequate emergency access?	☐	☐	✖	☐

Discussion

a. The Institute of Traffic Engineer's (ITE) *Trip Generation Handbook* was used to estimate automotive trip generation rates for the proposed project. Based on a worst-case scenario, the most intensive use of the proposed buildings would generate fewer than 100 peak hour vehicle trips per day.[18] Thus, the proposed project would not exceed the Contra Costa Transportation Authority Congestion Management Plan (CMP) 100 peak hour threshold requiring the preparation of a traffic impact study. Therefore, the proposed project does not require the preparation of a traffic impact study. Given that the project would generate fewer than 100 peak hour trips and would be consistent with the site's current General Plan land use and zoning designations, the project would not conflict with the CMP.

Alternative Transportation

The proposed project would include frontage improvements along both Garcia Avenue and Kelley Court that would include sidewalk connections to existing facilities along Garcia Avenue. Garcia Avenue is a 60-foot wide public road with adequate space for biking. Additionally, the proposed project would include bicycle parking at each building, as well as long term bicycle lockers.

Public transit in the project vicinity includes a bus stop on East Leland Road, approximately 0.25 mile from the project site. Tri Delta Transit provides five bus routes with stops at the East Leland and Piedmont Way stop. Additionally, the proposed project is located near the Pittsburg Center stop on the Yellow line of the Bay Area Rapid Transit (BART) system. The BART system connects the East Bay Area to the San Francisco Peninsula and provides 48 station stops to riders.

As such, the proposed project would be consistent with Policy 7-P-45, which requires new employment sites encourage secure bicycle facilities and other alternative transportation facilities.

[18] Paul Reinders, City of Pittsburg Traffic Engineer. Personal communication [email] with Rod Stinson, Raney Planning and Management, Inc. April 9, 2019.

Conclusion

Because the project is consistent with the site's current land use designation, traffic associated with development of the project site has been accounted for in the City's planning efforts and analyzed in the General Plan EIR. Furthermore, as discussed above, the proposed project would not generate more than 100 peak hour vehicle trips, which would be below the CMP standard for requiring a traffic impact report. Therefore, the proposed project would not conflict with an applicable plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities, and a ***less-than-significant*** impact would occur.

b. Section 15064.3 of the CEQA Guidelines provides specific considerations for evaluating a project's transportation impacts. Per Section 15064.3, analysis of VMT attributable to a project is the most appropriate measure of transportation impacts. Other relevant considerations may include the effects of the project on transit and non-motorized travel. Except as provided in Section 15064.3 (b)(2) regarding roadway capacity, a project's effect on automobile delay does not constitute a significant environmental impact under CEQA. It should be noted that currently, the provisions of Section 15064.3 apply only prospectively; determination of impacts based on VTM is not required Statewide until July 1, 2020.

Per Section 15064.3(3), a lead agency may analyze a project's VMT qualitatively based on the availability of transit, proximity to destinations, etc. As noted in question 'a' above, the proposed project would include the sidewalk connections along the frontage of Garcia Avenue and Kelley Court, as well as provide bicycle infrastructure parking. The site is accessible by both the Tri Delta Transit and BART systems, which would provide access to the site from almost the entirety of the Bay Area. The inclusion of bicycle infrastructure and access to transit would encourage the use of alternative means of transportation to and from the project site. In addition, while the area surrounding the project site is predominantly developed with commercial and industrial uses, residential developments exist directly south of the project site, and further south along East Leland Road. Thus, the proximity of the project site to existing residential developments, as well as the provision of public transit and bicycle infrastructure would act to reduce VMT associated with project operations.

Additionally, the RASP incorporates policies which would reduce VMT through connections throughout the City from public transit stations, accessible design improvements, traffic calming measures, and "easy to use" public transit systems. Inclusion of the RASP programs to reduce VMT and consistency with the General Plan and zoning designations would result in consistency with Section 15064.3(b) of the CEQA Guidelines, and a ***less-than-significant*** impact would occur.

c,d. Site access would be provided from Garcia Avenue and Kelley Court by way of 25 to 35-foot driveways. The driveways would have full view of Garcia Avenue and Kelley Court. The parking areas and drive aisles would leave distance between the proposed buildings

and entrance to the project site, which would not obstruct views or create any hazards related to the proposed project.

The City of Pittsburg approved an Emergency Operations Plan (EOP) in December 2018 designed to assist the City in responses to disasters, emergency incidents, and pre-planned events. The EOP provides an overview of the City's organization, policies, and approach to all phases of emergency preparedness. The proposed project would provide drive aisles with widths to accommodate emergency access vehicles. Thus, the propose project would not substantially increase hazards due to a geometric design feature or result in inadequate emergency access, and a ***less-than-significant*** impact would occur.

XVIII. TRIBAL CULTURAL RESOURCES. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).	☐	✖	☐	☐
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	✖	☐	☐

Discussion

a,b. As discussed in Section V, Cultural Resources, of this IS/MND, the project site is currently vacant and regularly disked. The project site does not contain any structures which would be considered a historical resource by the City or State standards. A search of the NAHC Sacred Lands File did not yield any information regarding the presence of Tribal Cultural Resources within the project site or the immediate area. Furthermore, a search of the CHRIS by the NWIC did not identify any known cultural resources within the project site.

In compliance with AB 52 (Public Resources Code Section 21080.3.1), a project notification letter was distributed to tribes which submitted request for consultation to the City. The letter was distributed on November 20, 2018 and requests to consult were not received within the mandatory 30-day response period.

Based on the location and lack of identified cultural resources at the site, known Tribal Cultural Resources do not exist within the proposed project site. Nevertheless, the possibility exists that construction of the proposed project could result in a substantial adverse change in the significance of a Tribal Cultural Resource if previously unknown cultural resources are uncovered during grading or other ground-disturbing activities. Thus, a ***potentially significant*** impact to tribal cultural resources could occur.

Mitigation Measure(s)
Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

XVIII-1. Implement Mitigation Measures V-1 and V-2.

XIX. UTILITIES AND SERVICE SYSTEMS. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	✖	☐
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	✖	☐
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	✖	☐
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	✖	☐
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	✖	☐

Discussion

a. Water supply and sewer utilities for the proposed development would be provided by the City of Pittsburg through the Contra Costa Water District (CCWD) and Delta Diablo, the City's wastewater provider. Services would be provided through connections to the existing water and sewer lines within Garcia Avenue and Kelley Court. In addition, the project would include an on-site stormwater collection and treatment system connecting to the City's existing storm drains and drainage channels located to the rear of each building. Electricity, natural gas, and telecommunications utilities would be provided by way of connections to existing infrastructure located within the immediate project vicinity.

Given that the proposed project is consistent with the site's current General Plan land use and zoning designations, standard utility improvements associated with development of the site have been anticipated by the City, and associated environmental effects have been analyzed in the General Plan EIR. Additionally, the RASP states that water pumps, storm drains, and sewer services are adequately sized to meet planned development. Because the proposed project is consistent with the type and intensity of development anticipated within RASP, the development would not conflict with the plan and would not require construction of expanded facilities. Therefore, the proposed project would result in a ***less-than-significant*** impact related to the relocation or construction of new or expanded water,

wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

b. Water supply for the project site is currently provided by the CCWD through the Central Valley Project (CVP). The CCWD obtains water from the Sacramento-San Joaquin Delta and serves treated and raw water to approximately 500,000 people in Contra Costa County. Other water supply sources used within the service area include San Joaquin River, Mallard Slough, recycled water, a minor amount of groundwater, and water transfers. Additionally, the City supplements water supplies with two wells, which yield 1,500-acre feet per year. The City also operates its own water treatment plant and associated infrastructure facilities. The Pittsburg treatment plant currently operates at 16 to 18 million gallons per day (mgd) for City residents. The design capacity of the current water operations is sufficient to meet the 2020 maximum day requirements of 30.5 mgd according to the General Plan.[19] Additionally, the General Plan establishes water conservation goals which are intended to reduce demand within the City and develop programs ensuring adequate flows for residents and emergency water uses.

Per CCWD's 2015 Urban Water Management Plan, water supplies will meet demand in excess of 60,000-acre feet per year and will be able to accommodate buildout of the City under normal year, single year, and multiple-dry year demand scenarios.[20]

The proposed project would include development of the project site with four shell buildings for industrial uses, consistent with the site's current General Plan land use and zoning designations. Given that the project is consistent with the City's General Plan, water demand associated with buildout of the proposed project has been anticipated by the City and accounted for in regional planning efforts, including the 2015 UWMP. In addition, the project would comply with the Section 18.84.310 of the City's Municipal Code, which contains the City's water-efficient landscape standards. Compliance with Section 18.84.310 of the City's Municipal Code would ensure that landscaping water demand from project operations would be minimized. Landscaping is expected to use plants with low water requirements.

Considering the above, the project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years, and a ***less-than-significant*** impact would occur.

c. Within the City of Pittsburg, sewer service is provided by the Delta Diablo. The City maintains and owns the local sewage collection system. The City's collection systems have evolved into two distinct sections: the older portion north of SR 4, and the portion serving newer areas south of the SR. Wastewater from developments south of SR 4 enters the Delta Diablo interceptor system on Pittsburg-Antioch Highway. The City's collection system consists of approximately 95 miles of sewer lines and one sewage lift station. The Delta

[19] City of Pittsburg. *City of Pittsburg General Plan 2002: Draft Environmental Impact Report*. January 2001.
[20] Contra Costa Water District. *2015 Urban Water Management* [pg. 7-8]. June 2016.

Diablo treatment plant has the capacity to treat approximately 19.5 million gallons of sewage per day.[21]

Delta Diablo created a Sewer System Management Plan in 2009, and updated the Management Plan in 2018. The Management Plan accounts for a population growth of 0.9% by 2040 and provides a five-year Capital Improvement Program which would include capacity enhancement projects for sewage systems in the County.[22]

The proposed project is consistent with the site's current General Plan land use and zoning designations. Thus, increased demand for wastewater collection and treatment facilities associated with buildout of the site have been anticipated by the City and analyzed in the General Plan EIR, as well as the Delta Diablo Sewer System Management Plan. Thus, the City would have adequate capacity to serve the projected wastewater demand related to project operations in addition to the City's existing commitments, and a ***less-than-significant*** impact would occur.

d,e. Solid waste, recyclable materials, and compostable material collection within the City of Pittsburg is provided by Mt. Diablo Resource Recovery. Solid waste from the City is ultimately disposed of at the Potrero Hills Landfill, located east of Suisun City. The landfill is permitted to accept waste through 2048 and currently has a remaining capacity of 13,872 cubic yards available out of a maximum permitted capacity of 83,100 cubic yards.[23]

Pittsburg currently participates in a voluntary recycling program operated by Mt. Diablo Resource Recovery. Recyclables are picked up once per week along with regular waste, and then processed at a facility owned by Mt. Diablo Resource Recovery. The City has been aggressive in implementing the programs outlined in the City's Source Reduction and Recycling Element to reach the mandated 50 percent diversion goal set by the California Integrated Waste Management Act of 1989.

Because the proposed project is consistent with the project site's current General Plan land use and zoning designations, construction and operation of the proposed project would not result in increased solid waste generation beyond what has been previously anticipated for the site by the City and analyzed in the General Plan EIR. The RASP EIR determined the current capacity at the associated landfills, in addition to the policies set forth in the General Plan would ensure that impacts related to solid waste capacity would not be significant. Therefore, the proposed project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals and would comply with federal, State, and local management and reduction statutes and regulations related to solid waste and a ***less-than-significant*** impact would occur.

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[21] Delta Diablo Sanitation District. *Transforming Wastewater to Resources*. Available at: https://www.deltadiablo.org/about-us/about-us. Accessed February 4, 2019.

[22] Delta Diablo Sanitation District. *Sewer System Management Plan*. October 10, 2018.

[23] California Department of Resources Recycling and Recovery. *Facility/Site Summary Details: Potrero Hills Landfill (48-AA-0075).* Available at: http://www.calrecycle.ca.gov/SWFacilities/Directory/48-AA-0075/Detail/. Accessed February 4, 2018.

XX. WILDFIRE. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	✖	☐
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	✖	☐
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	✖	☐
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	✖	☐

Discussion

a-d. According to the California Department of Forestry and Fire Protection (CAL FIRE) Fire and Resource Assessment Program, the proposed project site is not located within a Very High Fire Hazard Severity Zone nor are very high severity hazard zones located in close proximity to the project site.[24] Therefore, the proposed project would not be subject to significant risks related to wildfires, and a ***less-than-significant*** impact would occur.

[24] California Department of Forestry and Fire Protection. *Contra Costa County, Very High Fire Hazard Severity Zones in LRA*. January 7, 2009.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE.	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	✖	☐
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	✖	☐
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	✖	☐

Discussion

a. As discussed in Section IV, Biological Resources, of this Initial Study, while the potential exists for Swainson's hawk, burrowing owl, and migratory birds protected by the MBTA to occur on-site, mitigation measures IV-1 through IV-2 would ensure that impacts to special-status species would be less-than-significant. The project site is disturbed and regularly disked, has been previously disturbed, and does not contain any known historical resources. Thus, with implementation of the aforementioned mitigation measures, implementation of the proposed project would not have the potential to result in impacts related to historical resources.

Considering the above, the proposed project would not result in impacts associated with the following: 1) degrade the quality of the environment; 2) substantially reduce or impact the habitat of fish or wildlife species; 3) cause fish or wildlife populations to drop below self-sustaining levels; 4) threaten to eliminate a plant or animal community; 5) reduce the number or restrict the range of a rare or endangered plant or animal; or 6) eliminate important examples of the major periods of California history or prehistory. Therefore, a ***less-than-significant*** impact would occur.

b. The proposed project in conjunction with other development within the City of Pittsburg could incrementally contribute to cumulative impacts in the area. However, as demonstrated in this Initial Study, all potential environmental impacts that could occur as a result of project implementation would be reduced to a less-than-significant level through

compliance with the mitigation measures included in this Initial Study as well as applicable General Plan policies, Municipal Code standards, and standard permit conditions. In addition, the project would be consistent with the site's existing land use and zoning designations. The project site is surrounded by existing development and is located in an urbanized setting. As such, buildout of the site for industrial uses was generally considered in the cumulative analysis of buildout of the General Plan. When viewed in conjunction with other closely related past, present, or reasonably foreseeable future projects, development of the proposed project would result in a cumulatively considerable contribution to cumulative impacts in the City of Pittsburg, and the project's cumulative impact would be ***less than significant***.

c. As described in this Initial Study, the proposed project would comply with all applicable General Plan policies, Municipal Code standards, standard permit conditions, and mitigation measures included herein. In addition, as discussed in Section III, Air Quality, Section IX, Hazards and Hazardous Materials, and Section XIII, Noise, of this Initial Study, the project would not cause substantial effects to human beings, including effects related to hazardous materials and noise. Therefore, the proposed project's impact would be ***less than significant***.

APPENDIX

AIR QUALITY AND GHG MODELING RESULTS

Los Medanos Industrial Park Mitigated

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	109.88	1000sqft	7.16	109,884.00	0
Parking Lot	198.00	Space	3.80	79,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	293.13	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - pg&e RPS calculator

Land Use - Per site plans

Construction Phase - Per AQ questionnaire

Grading - AQ form

Energy Use -

Construction Off-road Equipment Mitigation - Mitigated

Mobile Land Use Mitigation - AQ form and google maps

Los Medanos Industrial Park Mitigated - Bay Area AQMD Air District, Annual

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
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tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2

tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	20.00	67.00
tblConstructionPhase	NumDays	300.00	67.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	30.00	23.00
tblConstructionPhase	NumDays	20.00	3.00
tblConstructionPhase	NumDays	10.00	0.00
tblGrading	AcresOfGrading	57.50	7.75
tblLandUse	LandUseSquareFeet	109,880.00	109,884.00
tblLandUse	LotAcreage	2.52	7.16
tblLandUse	LotAcreage	1.78	3.80
tblProjectCharacteristics	CO2IntensityFactor	641.35	293.13

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.7565	1.5582	1.1703	2.3100e-003	0.1073	0.0773	0.1846	0.0477	0.0723	0.1200	0.0000	206.3605	206.3605	0.0433	0.0000	207.4436
Maximum	**0.7565**	**1.5582**	**1.1703**	**2.3100e-003**	**0.1073**	**0.0773**	**0.1846**	**0.0477**	**0.0723**	**0.1200**	**0.0000**	**206.3605**	**206.3605**	**0.0433**	**0.0000**	**207.4436**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.6741	1.6280	1.2362	2.3100e-003	0.1073	0.0509	0.1582	0.0477	0.0508	0.0985	0.0000	206.3603	206.3603	0.0433	0.0000	207.4434
Maximum	**0.6741**	**1.6280**	**1.2362**	**2.3100e-003**	**0.1073**	**0.0509**	**0.1582**	**0.0477**	**0.0508**	**0.0985**	**0.0000**	**206.3603**	**206.3603**	**0.0433**	**0.0000**	**207.4434**

	ROG	NOx	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	**10.90**	**-4.48**	**-5.63**	**0.00**	**0.00**	**34.14**	**14.29**	**0.00**	**29.73**	**17.91**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-1-2019	6-30-2019	1.5322	1.5000
2	7-1-2019	9-30-2019	0.7469	0.7699
		Highest	1.5322	1.5000

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	0.4935	3.0000e-005	2.8500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.5000e-003	5.5000e-003	1.0000e-005	0.0000	5.8700e-003
Energy	9.7000e-003	0.0882	0.0741	5.3000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003	0.0000	360.1790	360.1790	0.0280	7.1700e-003	363.0143
Mobile	0.1789	0.8808	2.1122	6.9400e-003	0.5725	7.7300e-003	0.5802	0.1537	7.2700e-003	0.1610	0.0000	636.4279	636.4279	0.0244	0.0000	637.0386
Waste						0.0000	0.0000		0.0000	0.0000	27.6575	0.0000	27.6575	1.6345	0.0000	68.5203
Water						0.0000	0.0000		0.0000	0.0000	8.0613	18.2812	26.3425	0.8298	0.0199	53.0247
Total	**0.6821**	**0.9691**	**2.1891**	**7.4700e-003**	**0.5725**	**0.0144**	**0.5869**	**0.1537**	**0.0140**	**0.1677**	**35.7189**	**1,014.8936**	**1,050.6124**	**2.5167**	**0.0271**	**1,121.6038**

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	0.4935	3.0000e-005	2.8500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.5000e-003	5.5000e-003	1.0000e-005	0.0000	5.8700e-003
Energy	9.7000e-003	0.0882	0.0741	5.3000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003	0.0000	360.1790	360.1790	0.0280	7.1700e-003	363.0143
Mobile	0.1707	0.8182	1.9267	6.1800e-003	0.5049	6.9000e-003	0.5118	0.1356	6.4900e-003	0.1420	0.0000	566.0582	566.0582	0.0223	0.0000	566.6167
Waste						0.0000	0.0000		0.0000	0.0000	27.6575	0.0000	27.6575	1.6345	0.0000	68.5203
Water						0.0000	0.0000		0.0000	0.0000	8.0613	18.2812	26.3425	0.8298	0.0199	53.0247
Total	**0.6739**	**0.9064**	**2.0037**	**6.7100e-003**	**0.5049**	**0.0136**	**0.5185**	**0.1356**	**0.0132**	**0.1488**	**35.7189**	**944.5238**	**980.2427**	**2.5146**	**0.0271**	**1,051.1819**

	ROG	NOx	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	**1.19**	**6.47**	**8.47**	**10.17**	**11.80**	**5.75**	**11.65**	**11.80**	**5.58**	**11.28**	**0.00**	**6.93**	**6.70**	**0.08**	**0.00**	**6.28**

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	4/1/2019	3/31/2019	5	0	
2	Grading	Grading	4/1/2019	5/1/2019	5	23	
3	Site Preparation	Site Preparation	4/27/2019	4/26/2019	5	0	
4	Paving	Paving	5/2/2019	5/6/2019	5	3	
5	Building Construction	Building Construction	5/7/2019	8/7/2019	5	67	
6	Architectural Coating	Architectural Coating	5/21/2019	8/21/2019	5	67	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 7.75

Acres of Paving: 3.8

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 164,826; Non-Residential Outdoor: 54,942; Striped Parking Area: 4,752 (Architectural Coating – sqft)

OffRoad Equipment

Los Medanos Industrial Park Mitigated - Bay Area AQMD Air District, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
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	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	79.00	31.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	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 Demolition - 2019

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

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

3.2 Demolition - 2019

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**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0734	0.0000	0.0734	0.0385	0.0000	0.0385	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0545	0.6270	0.3838	7.1000e-004		0.0274	0.0274		0.0252	0.0252	0.0000	64.0565	64.0565	0.0203	0.0000	64.5632
Total	**0.0545**	**0.6270**	**0.3838**	**7.1000e-004**	**0.0734**	**0.0274**	**0.1008**	**0.0385**	**0.0252**	**0.0637**	**0.0000**	**64.0565**	**64.0565**	**0.0203**	**0.0000**	**64.5632**

3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.3000e-004	6.2000e-004	6.3000e-003	2.0000e-005	1.8200e-003	1.0000e-005	1.8300e-003	4.8000e-004	1.0000e-005	5.0000e-004	0.0000	1.6440	1.6440	4.0000e-005	0.0000	1.6451
Total	**8.3000e-004**	**6.2000e-004**	**6.3000e-003**	**2.0000e-005**	**1.8200e-003**	**1.0000e-005**	**1.8300e-003**	**4.8000e-004**	**1.0000e-005**	**5.0000e-004**	**0.0000**	**1.6440**	**1.6440**	**4.0000e-005**	**0.0000**	**1.6451**

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					0.0734	0.0000	0.0734	0.0385	0.0000	0.0385	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0208	0.5892	0.4223	7.1000e-004		0.0153	0.0153		0.0153	0.0153	0.0000	64.0564	64.0564	0.0203	0.0000	64.5631
Total	**0.0208**	**0.5892**	**0.4223**	**7.1000e-004**	**0.0734**	**0.0153**	**0.0887**	**0.0385**	**0.0153**	**0.0538**	**0.0000**	**64.0564**	**64.0564**	**0.0203**	**0.0000**	**64.5631**

3.3 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.3000e-004	6.2000e-004	6.3000e-003	2.0000e-005	1.8200e-003	1.0000e-005	1.8300e-003	4.8000e-004	1.0000e-005	5.0000e-004	0.0000	1.6440	1.6440	4.0000e-005	0.0000	1.6451
Total	**8.3000e-004**	**6.2000e-004**	**6.3000e-003**	**2.0000e-005**	**1.8200e-003**	**1.0000e-005**	**1.8300e-003**	**4.8000e-004**	**1.0000e-005**	**5.0000e-004**	**0.0000**	**1.6440**	**1.6440**	**4.0000e-005**	**0.0000**	**1.6451**

3.4 Site Preparation - 2019

Unmitigated Construction On-Site

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

3.4 Site Preparation - 2019

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

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

3.4 Site Preparation - 2019

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**

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.1800e-003	0.0229	0.0220	3.0000e-005		1.2400e-003	1.2400e-003		1.1400e-003	1.1400e-003	0.0000	3.0713	3.0713	9.7000e-004	0.0000	3.0956
Paving	4.9800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.1600e-003**	**0.0229**	**0.0220**	**3.0000e-005**		**1.2400e-003**	**1.2400e-003**		**1.1400e-003**	**1.1400e-003**	**0.0000**	**3.0713**	**3.0713**	**9.7000e-004**	**0.0000**	**3.0956**

3.5 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	6.0000e-005	6.2000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1608	0.1608	0.0000	0.0000	0.1609
Total	**8.0000e-005**	**6.0000e-005**	**6.2000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1608**	**0.1608**	**0.0000**	**0.0000**	**0.1609**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.4000e-003	0.0302	0.0259	3.0000e-005		1.0000e-003	1.0000e-003		1.0000e-003	1.0000e-003	0.0000	3.0713	3.0713	9.7000e-004	0.0000	3.0956
Paving	4.9800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.3800e-003**	**0.0302**	**0.0259**	**3.0000e-005**		**1.0000e-003**	**1.0000e-003**		**1.0000e-003**	**1.0000e-003**	**0.0000**	**3.0713**	**3.0713**	**9.7000e-004**	**0.0000**	**3.0956**

3.5 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	6.0000e-005	6.2000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1608	0.1608	0.0000	0.0000	0.1609
Total	**8.0000e-005**	**6.0000e-005**	**6.2000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1608**	**0.1608**	**0.0000**	**0.0000**	**0.1609**

3.6 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0791	0.7061	0.5750	9.0000e-004		0.0432	0.0432		0.0406	0.0406	0.0000	78.7599	78.7599	0.0192	0.0000	79.2396
Total	**0.0791**	**0.7061**	**0.5750**	**9.0000e-004**		**0.0432**	**0.0432**		**0.0406**	**0.0406**	**0.0000**	**78.7599**	**78.7599**	**0.0192**	**0.0000**	**79.2396**

3.6 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.9100e-003	0.1315	0.0337	2.9000e-004	6.8100e-003	9.0000e-004	7.7100e-003	1.9700e-003	8.6000e-004	2.8300e-003	0.0000	27.3670	27.3670	1.5200e-003	0.0000	27.4049
Worker	9.5900e-003	7.1100e-003	0.0725	2.1000e-004	0.0209	1.4000e-004	0.0211	5.5600e-003	1.3000e-004	5.7000e-003	0.0000	18.9164	18.9164	5.1000e-004	0.0000	18.9291
Total	**0.0145**	**0.1386**	**0.1062**	**5.0000e-004**	**0.0277**	**1.0400e-003**	**0.0288**	**7.5300e-003**	**9.9000e-004**	**8.5300e-003**	**0.0000**	**46.2834**	**46.2834**	**2.0300e-003**	**0.0000**	**46.3340**

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	0.0362	0.7891	0.5988	9.0000e-004		0.0303	0.0303		0.0303	0.0303	0.0000	78.7598	78.7598	0.0192	0.0000	79.2395
Total	**0.0362**	**0.7891**	**0.5988**	**9.0000e-004**		**0.0303**	**0.0303**		**0.0303**	**0.0303**	**0.0000**	**78.7598**	**78.7598**	**0.0192**	**0.0000**	**79.2395**

3.6 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.9100e-003	0.1315	0.0337	2.9000e-004	6.8100e-003	9.0000e-004	7.7100e-003	1.9700e-003	8.6000e-004	2.8300e-003	0.0000	27.3670	27.3670	1.5200e-003	0.0000	27.4049
Worker	9.5900e-003	7.1100e-003	0.0725	2.1000e-004	0.0209	1.4000e-004	0.0211	5.5600e-003	1.3000e-004	5.7000e-003	0.0000	18.9164	18.9164	5.1000e-004	0.0000	18.9291
Total	**0.0145**	**0.1386**	**0.1062**	**5.0000e-004**	**0.0277**	**1.0400e-003**	**0.0288**	**7.5300e-003**	**9.9000e-004**	**8.5300e-003**	**0.0000**	**46.2834**	**46.2834**	**2.0300e-003**	**0.0000**	**46.3340**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5895					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.9300e-003	0.0615	0.0617	1.0000e-004		4.3100e-003	4.3100e-003		4.3100e-003	4.3100e-003	0.0000	8.5534	8.5534	7.2000e-004	0.0000	8.5715
Total	**0.5984**	**0.0615**	**0.0617**	**1.0000e-004**		**4.3100e-003**	**4.3100e-003**		**4.3100e-003**	**4.3100e-003**	**0.0000**	**8.5534**	**8.5534**	**7.2000e-004**	**0.0000**	**8.5715**

3.7 Architectural Coating - 2019

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	1.9400e-003	1.4400e-003	0.0147	4.0000e-005	4.2400e-003	3.0000e-005	4.2600e-003	1.1300e-003	3.0000e-005	1.1500e-003	0.0000	3.8312	3.8312	1.0000e-004	0.0000	3.8337
Total	**1.9400e-003**	**1.4400e-003**	**0.0147**	**4.0000e-005**	**4.2400e-003**	**3.0000e-005**	**4.2600e-003**	**1.1300e-003**	**3.0000e-005**	**1.1500e-003**	**0.0000**	**3.8312**	**3.8312**	**1.0000e-004**	**0.0000**	**3.8337**

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	0.5895					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.8200e-003	0.0788	0.0614	1.0000e-004		3.1900e-003	3.1900e-003		3.1900e-003	3.1900e-003	0.0000	8.5534	8.5534	7.2000e-004	0.0000	8.5715
Total	**0.5933**	**0.0788**	**0.0614**	**1.0000e-004**		**3.1900e-003**	**3.1900e-003**		**3.1900e-003**	**3.1900e-003**	**0.0000**	**8.5534**	**8.5534**	**7.2000e-004**	**0.0000**	**8.5715**

3.7 Architectural Coating - 2019

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	1.9400e-003	1.4400e-003	0.0147	4.0000e-005	4.2400e-003	3.0000e-005	4.2600e-003	1.1300e-003	3.0000e-005	1.1500e-003	0.0000	3.8312	3.8312	1.0000e-004	0.0000	3.8337
Total	**1.9400e-003**	**1.4400e-003**	**0.0147**	**4.0000e-005**	**4.2400e-003**	**3.0000e-005**	**4.2600e-003**	**1.1300e-003**	**3.0000e-005**	**1.1500e-003**	**0.0000**	**3.8312**	**3.8312**	**1.0000e-004**	**0.0000**	**3.8337**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.1707	0.8182	1.9267	6.1800e-003	0.5049	6.9000e-003	0.5118	0.1356	6.4900e-003	0.1420	0.0000	566.0582	566.0582	0.0223	0.0000	566.6167
Unmitigated	0.1789	0.8808	2.1122	6.9400e-003	0.5725	7.7300e-003	0.5802	0.1537	7.2700e-003	0.1610	0.0000	636.4279	636.4279	0.0244	0.0000	637.0386

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Industrial Park	750.48	273.60	80.21	1,537,970	1,356,490
Parking Lot	0.00	0.00	0.00		
Total	750.48	273.60	80.21	1,537,970	1,356,490

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
Industrial Park	9.50	7.30	7.30	59.00	28.00	13.00	79	19	2
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
Industrial Park	0.573139	0.040894	0.193976	0.114604	0.017740	0.005371	0.017133	0.024527	0.002545	0.002442	0.005942	0.000877	0.000812
Parking Lot	0.573139	0.040894	0.193976	0.114604	0.017740	0.005371	0.017133	0.024527	0.002545	0.002442	0.005942	0.000877	0.000812

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	264.1881	264.1881	0.0261	5.4100e-003	266.4530
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	264.1881	264.1881	0.0261	5.4100e-003	266.4530
NaturalGas Mitigated	9.7000e-003	0.0882	0.0741	5.3000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003	0.0000	95.9909	95.9909	1.8400e-003	1.7600e-003	96.5613
NaturalGas Unmitigated	9.7000e-003	0.0882	0.0741	5.3000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003	0.0000	95.9909	95.9909	1.8400e-003	1.7600e-003	96.5613

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					
Industrial Park	1.7988e+006	9.7000e-003	0.0882	0.0741	5.3000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003	0.0000	95.9909	95.9909	1.8400e-003	1.7600e-003	96.5613
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		**9.7000e-003**	**0.0882**	**0.0741**	**5.3000e-004**		**6.7000e-003**	**6.7000e-003**		**6.7000e-003**	**6.7000e-003**	**0.0000**	**95.9909**	**95.9909**	**1.8400e-003**	**1.7600e-003**	**96.5613**

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					
Industrial Park	1.7988e+006	9.7000e-003	0.0882	0.0741	5.3000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003	0.0000	95.9909	95.9909	1.8400e-003	1.7600e-003	96.5613
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		**9.7000e-003**	**0.0882**	**0.0741**	**5.3000e-004**		**6.7000e-003**	**6.7000e-003**		**6.7000e-003**	**6.7000e-003**	**0.0000**	**95.9909**	**95.9909**	**1.8400e-003**	**1.7600e-003**	**96.5613**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Industrial Park	1.95923e+006	260.5025	0.0258	5.3300e-003	262.7357
Parking Lot	27720	3.6857	3.6000e-004	8.0000e-005	3.7173
Total		**264.1881**	**0.0261**	**5.4100e-003**	**266.4530**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Industrial Park	1.95923e+006	260.5025	0.0258	5.3300e-003	262.7357
Parking Lot	27720	3.6857	3.6000e-004	8.0000e-005	3.7173
Total		**264.1881**	**0.0261**	**5.4100e-003**	**266.4530**

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	0.4935	3.0000e-005	2.8500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.5000e-003	5.5000e-003	1.0000e-005	0.0000	5.8700e-003
Unmitigated	0.4935	3.0000e-005	2.8500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.5000e-003	5.5000e-003	1.0000e-005	0.0000	5.8700e-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	0.0590					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4343					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.7000e-004	3.0000e-005	2.8500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.5000e-003	5.5000e-003	1.0000e-005	0.0000	5.8700e-003
Total	**0.4935**	**3.0000e-005**	**2.8500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**5.5000e-003**	**5.5000e-003**	**1.0000e-005**	**0.0000**	**5.8700e-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	0.0590					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4343					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.7000e-004	3.0000e-005	2.8500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.5000e-003	5.5000e-003	1.0000e-005	0.0000	5.8700e-003
Total	**0.4935**	**3.0000e-005**	**2.8500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**5.5000e-003**	**5.5000e-003**	**1.0000e-005**	**0.0000**	**5.8700e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	26.3425	0.8298	0.0199	53.0247
Unmitigated	26.3425	0.8298	0.0199	53.0247

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Industrial Park	25.4097 / 0	26.3425	0.8298	0.0199	53.0247
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**26.3425**	**0.8298**	**0.0199**	**53.0247**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Industrial Park	25.4097 / 0	26.3425	0.8298	0.0199	53.0247
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**26.3425**	**0.8298**	**0.0199**	**53.0247**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	27.6575	1.6345	0.0000	68.5203
Unmitigated	27.6575	1.6345	0.0000	68.5203

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Industrial Park	136.25	27.6575	1.6345	0.0000	68.5203
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**27.6575**	**1.6345**	**0.0000**	**68.5203**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Industrial Park	136.25	27.6575	1.6345	0.0000	68.5203
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**27.6575**	**1.6345**	**0.0000**	**68.5203**

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

Los Medanos Industrial Park Mitigated

Bay Area AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	109.88	1000sqft	7.16	109,884.00	0
Parking Lot	198.00	Space	3.80	79,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	293.13	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - pg&e RPS calculator

Land Use - Per site plans

Construction Phase - Per AQ questionnaire

Grading - AQ form

Energy Use -

Construction Off-road Equipment Mitigation - Mitigated

Mobile Land Use Mitigation - AQ form and google maps

Los Medanos Industrial Park Mitigated - Bay Area AQMD Air District, Summer

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2

tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	20.00	67.00
tblConstructionPhase	NumDays	300.00	67.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	30.00	23.00
tblConstructionPhase	NumDays	20.00	3.00
tblConstructionPhase	NumDays	10.00	0.00
tblGrading	AcresOfGrading	57.50	7.75
tblLandUse	LandUseSquareFeet	109,880.00	109,884.00
tblLandUse	LotAcreage	2.52	7.16
tblLandUse	LotAcreage	1.78	3.80
tblProjectCharacteristics	CO2IntensityFactor	641.35	293.13

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					
2019	20.7295	54.5678	33.9731	0.0637	6.5437	4.1871	8.9275	3.3924	3.8705	5.5854	0.0000	6,309.5031	6,309.5031	1.9472	0.0000	6,358.1816
Maximum	**20.7295**	**54.5678**	**33.9731**	**0.0637**	**6.5437**	**4.1871**	**8.9275**	**3.3924**	**3.8705**	**5.5854**	**0.0000**	**6,309.5031**	**6,309.5031**	**1.9472**	**0.0000**	**6,358.1816**

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					
2019	19.2967	51.2863	37.3190	0.0637	6.5437	1.8615	7.8781	3.3924	1.8614	4.7267	0.0000	6,309.5031	6,309.5031	1.9472	0.0000	6,358.1816
Maximum	**19.2967**	**51.2863**	**37.3190**	**0.0637**	**6.5437**	**1.8615**	**7.8781**	**3.3924**	**1.8614**	**4.7267**	**0.0000**	**6,309.5031**	**6,309.5031**	**1.9472**	**0.0000**	**6,358.1816**

	ROG	NOx	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	**6.91**	**6.01**	**-9.85**	**0.00**	**0.00**	**55.54**	**11.75**	**0.00**	**51.91**	**15.37**	**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	2.7056	2.9000e-004	0.0316	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0674	0.0674	1.8000e-004		0.0719
Energy	0.0532	0.4832	0.4059	2.9000e-003		0.0367	0.0367		0.0367	0.0367		579.7908	579.7908	0.0111	0.0106	583.2363
Mobile	1.4278	5.9751	15.4898	0.0517	4.1809	0.0543	4.2352	1.1188	0.0510	1.1698		5,223.7978	5,223.7978	0.1913		5,228.5797
Total	**4.1865**	**6.4585**	**15.9273**	**0.0546**	**4.1809**	**0.0911**	**4.2720**	**1.1188**	**0.0879**	**1.2066**		**5,803.6560**	**5,803.6560**	**0.2026**	**0.0106**	**5,811.8878**

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	2.7056	2.9000e-004	0.0316	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0674	0.0674	1.8000e-004		0.0719
Energy	0.0532	0.4832	0.4059	2.9000e-003		0.0367	0.0367		0.0367	0.0367		579.7908	579.7908	0.0111	0.0106	583.2363
Mobile	1.3691	5.5603	14.0205	0.0460	3.6876	0.0484	3.7360	0.9868	0.0455	1.0323		4,645.4239	4,645.4239	0.1743		4,649.7811
Total	**4.1278**	**6.0438**	**14.4580**	**0.0489**	**3.6876**	**0.0853**	**3.7728**	**0.9868**	**0.0824**	**1.0691**		**5,225.2821**	**5,225.2821**	**0.1856**	**0.0106**	**5,233.0893**

	ROG	NOx	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	**1.40**	**6.42**	**9.22**	**10.51**	**11.80**	**6.41**	**11.69**	**11.80**	**6.26**	**11.40**	**0.00**	**9.97**	**9.97**	**8.39**	**0.00**	**9.96**

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	4/1/2019	3/31/2019	5	0	
2	Grading	Grading	4/1/2019	5/1/2019	5	23	
3	Site Preparation	Site Preparation	4/27/2019	4/26/2019	5	0	
4	Paving	Paving	5/2/2019	5/6/2019	5	3	
5	Building Construction	Building Construction	5/7/2019	8/7/2019	5	67	
6	Architectural Coating	Architectural Coating	5/21/2019	8/21/2019	5	67	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 7.75

Acres of Paving: 3.8

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 164,826; Non-Residential Outdoor: 54,942; Striped Parking Area: 4,752 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
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	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	79.00	31.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Demolition - 2019

Unmitigated Construction On-Site

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

3.2 Demolition - 2019

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**

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	0.0000	0.0000	0.0000	0.0000	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 Demolition - 2019

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**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3794	0.0000	6.3794	3.3488	0.0000	3.3488			0.0000			0.0000
Off-Road	4.7389	54.5202	33.3768	0.0620		2.3827	2.3827		2.1920	2.1920		6,140.0195	6,140.0195	1.9426		6,188.5854
Total	**4.7389**	**54.5202**	**33.3768**	**0.0620**	**6.3794**	**2.3827**	**8.7621**	**3.3488**	**2.1920**	**5.5409**		**6,140.0195**	**6,140.0195**	**1.9426**		**6,188.5854**

3.3 Grading - 2019

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	0.0761	0.0476	0.5964	1.7000e-003	0.1643	1.0900e-003	0.1654	0.0436	1.0000e-003	0.0446		169.4836	169.4836	4.5100e-003		169.5962
Total	**0.0761**	**0.0476**	**0.5964**	**1.7000e-003**	**0.1643**	**1.0900e-003**	**0.1654**	**0.0436**	**1.0000e-003**	**0.0446**		**169.4836**	**169.4836**	**4.5100e-003**		**169.5962**

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					6.3794	0.0000	6.3794	3.3488	0.0000	3.3488			0.0000			0.0000
Off-Road	1.8106	51.2386	36.7226	0.0620		1.3333	1.3333		1.3333	1.3333	0.0000	6,140.0195	6,140.0195	1.9426		6,188.5854
Total	**1.8106**	**51.2386**	**36.7226**	**0.0620**	**6.3794**	**1.3333**	**7.7127**	**3.3488**	**1.3333**	**4.6821**	**0.0000**	**6,140.0195**	**6,140.0195**	**1.9426**		**6,188.5854**

3.3 Grading - 2019

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	0.0761	0.0476	0.5964	1.7000e-003	0.1643	1.0900e-003	0.1654	0.0436	1.0000e-003	0.0446		169.4836	169.4836	4.5100e-003		169.5962
Total	**0.0761**	**0.0476**	**0.5964**	**1.7000e-003**	**0.1643**	**1.0900e-003**	**0.1654**	**0.0436**	**1.0000e-003**	**0.0446**		**169.4836**	**169.4836**	**4.5100e-003**		**169.5962**

3.4 Site Preparation - 2019

Unmitigated Construction On-Site

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

3.4 Site Preparation - 2019

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**

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	0.0000	0.0000	0.0000	0.0000	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**

3.4 Site Preparation - 2019

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**

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586		2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	3.3187					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.7731**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**		**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.5 Paving - 2019

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	0.0570	0.0357	0.4473	1.2800e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		127.1127	127.1127	3.3800e-003		127.1972
Total	**0.0570**	**0.0357**	**0.4473**	**1.2800e-003**	**0.1232**	**8.2000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**127.1127**	**127.1127**	**3.3800e-003**		**127.1972**

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	0.9311	20.1146	17.2957	0.0228		0.6670	0.6670		0.6670	0.6670	0.0000	2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	3.3187					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.2497**	**20.1146**	**17.2957**	**0.0228**		**0.6670**	**0.6670**		**0.6670**	**0.6670**	**0.0000**	**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.5 Paving - 2019

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	0.0570	0.0357	0.4473	1.2800e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		127.1127	127.1127	3.3800e-003		127.1972
Total	**0.0570**	**0.0357**	**0.4473**	**1.2800e-003**	**0.1232**	**8.2000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**127.1127**	**127.1127**	**3.3800e-003**		**127.1972**

3.6 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.6 Building Construction - 2019

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	0.1438	3.8717	0.9454	8.6000e-003	0.2098	0.0268	0.2366	0.0604	0.0256	0.0860		910.0207	910.0207	0.0481		911.2238
Worker	0.3004	0.1882	2.3557	6.7200e-003	0.6490	4.3000e-003	0.6533	0.1721	3.9600e-003	0.1761		669.4601	669.4601	0.0178		669.9050
Total	**0.4442**	**4.0599**	**3.3011**	**0.0153**	**0.8588**	**0.0311**	**0.8899**	**0.2325**	**0.0296**	**0.2621**		**1,579.4808**	**1,579.4808**	**0.0659**		**1,581.1288**

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	1.0809	23.5544	17.8738	0.0269		0.9036	0.9036		0.9036	0.9036	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**1.0809**	**23.5544**	**17.8738**	**0.0269**		**0.9036**	**0.9036**		**0.9036**	**0.9036**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.6 Building Construction - 2019

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	0.1438	3.8717	0.9454	8.6000e-003	0.2098	0.0268	0.2366	0.0604	0.0256	0.0860		910.0207	910.0207	0.0481		911.2238
Worker	0.3004	0.1882	2.3557	6.7200e-003	0.6490	4.3000e-003	0.6533	0.1721	3.9600e-003	0.1761		669.4601	669.4601	0.0178		669.9050
Total	**0.4442**	**4.0599**	**3.3011**	**0.0153**	**0.8588**	**0.0311**	**0.8899**	**0.2325**	**0.0296**	**0.2621**		**1,579.4808**	**1,579.4808**	**0.0659**		**1,581.1288**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	17.5969					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**17.8633**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.7 Architectural Coating - 2019

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	0.0609	0.0381	0.4771	1.3600e-003	0.1314	8.7000e-004	0.1323	0.0349	8.0000e-004	0.0357		135.5869	135.5869	3.6000e-003		135.6770
Total	**0.0609**	**0.0381**	**0.4771**	**1.3600e-003**	**0.1314**	**8.7000e-004**	**0.1323**	**0.0349**	**8.0000e-004**	**0.0357**		**135.5869**	**135.5869**	**3.6000e-003**		**135.6770**

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	17.5969					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1139	2.3524	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**17.7108**	**2.3524**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.7 Architectural Coating - 2019

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	0.0609	0.0381	0.4771	1.3600e-003	0.1314	8.7000e-004	0.1323	0.0349	8.0000e-004	0.0357		135.5869	135.5869	3.6000e-003		135.6770
Total	**0.0609**	**0.0381**	**0.4771**	**1.3600e-003**	**0.1314**	**8.7000e-004**	**0.1323**	**0.0349**	**8.0000e-004**	**0.0357**		**135.5869**	**135.5869**	**3.6000e-003**		**135.6770**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive 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	1.3691	5.5603	14.0205	0.0460	3.6876	0.0484	3.7360	0.9868	0.0455	1.0323		4,645.4239	4,645.4239	0.1743		4,649.7811
Unmitigated	1.4278	5.9751	15.4898	0.0517	4.1809	0.0543	4.2352	1.1188	0.0510	1.1698		5,223.7978	5,223.7978	0.1913		5,228.5797

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Industrial Park	750.48	273.60	80.21	1,537,970	1,356,490
Parking Lot	0.00	0.00	0.00		
Total	750.48	273.60	80.21	1,537,970	1,356,490

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
Industrial Park	9.50	7.30	7.30	59.00	28.00	13.00	79	19	2
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
Industrial Park	0.573139	0.040894	0.193976	0.114604	0.017740	0.005371	0.017133	0.024527	0.002545	0.002442	0.005942	0.000877	0.000812
Parking Lot	0.573139	0.040894	0.193976	0.114604	0.017740	0.005371	0.017133	0.024527	0.002545	0.002442	0.005942	0.000877	0.000812

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0532	0.4832	0.4059	2.9000e-003		0.0367	0.0367		0.0367	0.0367		579.7908	579.7908	0.0111	0.0106	583.2363
NaturalGas Unmitigated	0.0532	0.4832	0.4059	2.9000e-003		0.0367	0.0367		0.0367	0.0367		579.7908	579.7908	0.0111	0.0106	583.2363

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					
Industrial Park	4928.22	0.0532	0.4832	0.4059	2.9000e-003		0.0367	0.0367		0.0367	0.0367		579.7908	579.7908	0.0111	0.0106	583.2363
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		**0.0532**	**0.4832**	**0.4059**	**2.9000e-003**		**0.0367**	**0.0367**		**0.0367**	**0.0367**		**579.7908**	**579.7908**	**0.0111**	**0.0106**	**583.2363**

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					
Industrial Park	4.92822	0.0532	0.4832	0.4059	2.9000e-003		0.0367	0.0367		0.0367	0.0367		579.7908	579.7908	0.0111	0.0106	583.2363
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		**0.0532**	**0.4832**	**0.4059**	**2.9000e-003**		**0.0367**	**0.0367**		**0.0367**	**0.0367**		**579.7908**	**579.7908**	**0.0111**	**0.0106**	**583.2363**

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	2.7056	2.9000e-004	0.0316	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0674	0.0674	1.8000e-004		0.0719
Unmitigated	2.7056	2.9000e-004	0.0316	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0674	0.0674	1.8000e-004		0.0719

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	0.3230					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3796					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.9800e-003	2.9000e-004	0.0316	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0674	0.0674	1.8000e-004		0.0719
Total	**2.7056**	**2.9000e-004**	**0.0316**	**0.0000**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**		**0.0674**	**0.0674**	**1.8000e-004**		**0.0719**

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	0.3230					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3796					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.9800e-003	2.9000e-004	0.0316	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0674	0.0674	1.8000e-004		0.0719
Total	**2.7056**	**2.9000e-004**	**0.0316**	**0.0000**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**		**0.0674**	**0.0674**	**1.8000e-004**		**0.0719**

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

Los Medanos Industrial Park Mitigated

Bay Area AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	109.88	1000sqft	7.16	109,884.00	0
Parking Lot	198.00	Space	3.80	79,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	293.13	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - pg&e RPS calculator

Land Use - Per site plans

Construction Phase - Per AQ questionnaire

Grading - AQ form

Energy Use -

Construction Off-road Equipment Mitigation - Mitigated

Mobile Land Use Mitigation - AQ form and google maps

Los Medanos Industrial Park Mitigated - Bay Area AQMD Air District, Winter

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2

tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	20.00	67.00
tblConstructionPhase	NumDays	300.00	67.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	30.00	23.00
tblConstructionPhase	NumDays	20.00	3.00
tblConstructionPhase	NumDays	10.00	0.00
tblGrading	AcresOfGrading	57.50	7.75
tblLandUse	LandUseSquareFeet	109,880.00	109,884.00
tblLandUse	LotAcreage	2.52	7.16
tblLandUse	LotAcreage	1.78	3.80
tblProjectCharacteristics	CO2IntensityFactor	641.35	293.13

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					
2019	20.7571	54.5791	33.9399	0.0636	6.5437	4.1871	8.9275	3.3924	3.8705	5.5854	0.0000	6,296.1459	6,296.1459	1.9469	0.0000	6,344.8178
Maximum	**20.7571**	**54.5791**	**33.9399**	**0.0636**	**6.5437**	**4.1871**	**8.9275**	**3.3924**	**3.8705**	**5.5854**	**0.0000**	**6,296.1459**	**6,296.1459**	**1.9469**	**0.0000**	**6,344.8178**

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					
2019	19.3243	51.2975	37.2857	0.0636	6.5437	1.8615	7.8781	3.3924	1.8614	4.7267	0.0000	6,296.1459	6,296.1459	1.9469	0.0000	6,344.8178
Maximum	**19.3243**	**51.2975**	**37.2857**	**0.0636**	**6.5437**	**1.8615**	**7.8781**	**3.3924**	**1.8614**	**4.7267**	**0.0000**	**6,296.1459**	**6,296.1459**	**1.9469**	**0.0000**	**6,344.8178**

	ROG	NOx	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	**6.90**	**6.01**	**-9.86**	**0.00**	**0.00**	**55.54**	**11.75**	**0.00**	**51.91**	**15.37**	**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	2.7056	2.9000e-004	0.0316	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0674	0.0674	1.8000e-004		0.0719
Energy	0.0532	0.4832	0.4059	2.9000e-003		0.0367	0.0367		0.0367	0.0367		579.7908	579.7908	0.0111	0.0106	583.2363
Mobile	1.2528	6.3247	15.5417	0.0484	4.1809	0.0546	4.2355	1.1188	0.0514	1.1701		4,887.7694	4,887.7694	0.1939		4,892.6177
Total	**4.0115**	**6.8082**	**15.9792**	**0.0513**	**4.1809**	**0.0914**	**4.2724**	**1.1188**	**0.0882**	**1.2070**		**5,467.6276**	**5,467.6276**	**0.2052**	**0.0106**	**5,475.9259**

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	2.7056	2.9000e-004	0.0316	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0674	0.0674	1.8000e-004		0.0719
Energy	0.0532	0.4832	0.4059	2.9000e-003		0.0367	0.0367		0.0367	0.0367		579.7908	579.7908	0.0111	0.0106	583.2363
Mobile	1.1949	5.8669	14.2302	0.0430	3.6876	0.0488	3.7363	0.9868	0.0459	1.0326		4,345.8365	4,345.8365	0.1778		4,350.2818
Total	**3.9536**	**6.3504**	**14.6677**	**0.0459**	**3.6876**	**0.0856**	**3.7732**	**0.9868**	**0.0827**	**1.0695**		**4,925.6947**	**4,925.6947**	**0.1891**	**0.0106**	**4,933.5900**

	ROG	NOx	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	**1.44**	**6.72**	**8.21**	**10.47**	**11.80**	**6.39**	**11.68**	**11.80**	**6.25**	**11.39**	**0.00**	**9.91**	**9.91**	**7.85**	**0.00**	**9.90**

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	4/1/2019	3/31/2019	5	0	
2	Grading	Grading	4/1/2019	5/1/2019	5	23	
3	Site Preparation	Site Preparation	4/27/2019	4/26/2019	5	0	
4	Paving	Paving	5/2/2019	5/6/2019	5	3	
5	Building Construction	Building Construction	5/7/2019	8/7/2019	5	67	
6	Architectural Coating	Architectural Coating	5/21/2019	8/21/2019	5	67	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 7.75

Acres of Paving: 3.8

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 164,826; Non-Residential Outdoor: 54,942; Striped Parking Area: 4,752 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
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	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	79.00	31.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Demolition - 2019

Unmitigated Construction On-Site

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

3.2 Demolition - 2019

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**

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	0.0000	0.0000	0.0000	0.0000	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 Demolition - 2019

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**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3794	0.0000	6.3794	3.3488	0.0000	3.3488			0.0000			0.0000
Off-Road	4.7389	54.5202	33.3768	0.0620		2.3827	2.3827		2.1920	2.1920		6,140.0195	6,140.0195	1.9426		6,188.5854
Total	**4.7389**	**54.5202**	**33.3768**	**0.0620**	**6.3794**	**2.3827**	**8.7621**	**3.3488**	**2.1920**	**5.5409**		**6,140.0195**	**6,140.0195**	**1.9426**		**6,188.5854**

3.3 Grading - 2019

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	0.0804	0.0589	0.5631	1.5700e-003	0.1643	1.0900e-003	0.1654	0.0436	1.0000e-003	0.0446		156.1264	156.1264	4.2400e-003		156.2324
Total	**0.0804**	**0.0589**	**0.5631**	**1.5700e-003**	**0.1643**	**1.0900e-003**	**0.1654**	**0.0436**	**1.0000e-003**	**0.0446**		**156.1264**	**156.1264**	**4.2400e-003**		**156.2324**

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					6.3794	0.0000	6.3794	3.3488	0.0000	3.3488			0.0000			0.0000
Off-Road	1.8106	51.2386	36.7226	0.0620		1.3333	1.3333		1.3333	1.3333	0.0000	6,140.0195	6,140.0195	1.9426		6,188.5854
Total	**1.8106**	**51.2386**	**36.7226**	**0.0620**	**6.3794**	**1.3333**	**7.7127**	**3.3488**	**1.3333**	**4.6821**	**0.0000**	**6,140.0195**	**6,140.0195**	**1.9426**		**6,188.5854**

3.3 Grading - 2019

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	0.0804	0.0589	0.5631	1.5700e-003	0.1643	1.0900e-003	0.1654	0.0436	1.0000e-003	0.0446		156.1264	156.1264	4.2400e-003		156.2324
Total	**0.0804**	**0.0589**	**0.5631**	**1.5700e-003**	**0.1643**	**1.0900e-003**	**0.1654**	**0.0436**	**1.0000e-003**	**0.0446**		**156.1264**	**156.1264**	**4.2400e-003**		**156.2324**

3.4 Site Preparation - 2019

Unmitigated Construction On-Site

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

3.4 Site Preparation - 2019

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**

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	0.0000	0.0000	0.0000	0.0000	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**

3.4 Site Preparation - 2019

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**

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586		2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	3.3187					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.7731**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**		**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.5 Paving - 2019

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	0.0603	0.0442	0.4223	1.1800e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		117.0948	117.0948	3.1800e-003		117.1743
Total	**0.0603**	**0.0442**	**0.4223**	**1.1800e-003**	**0.1232**	**8.2000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**117.0948**	**117.0948**	**3.1800e-003**		**117.1743**

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	0.9311	20.1146	17.2957	0.0228		0.6670	0.6670		0.6670	0.6670	0.0000	2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	3.3187					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.2497**	**20.1146**	**17.2957**	**0.0228**		**0.6670**	**0.6670**		**0.6670**	**0.6670**	**0.0000**	**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.5 Paving - 2019

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	0.0603	0.0442	0.4223	1.1800e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		117.0948	117.0948	3.1800e-003		117.1743
Total	**0.0603**	**0.0442**	**0.4223**	**1.1800e-003**	**0.1232**	**8.2000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**117.0948**	**117.0948**	**3.1800e-003**		**117.1743**

3.6 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.6 Building Construction - 2019

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	0.1507	3.9241	1.0793	8.3900e-003	0.2098	0.0272	0.2371	0.0604	0.0260	0.0865		887.3813	887.3813	0.0521		888.6842
Worker	0.3176	0.2326	2.2242	6.1900e-003	0.6490	4.3000e-003	0.6533	0.1721	3.9600e-003	0.1761		616.6992	616.6992	0.0168		617.1179
Total	**0.4683**	**4.1567**	**3.3034**	**0.0146**	**0.8588**	**0.0315**	**0.8903**	**0.2325**	**0.0300**	**0.2626**		**1,504.0805**	**1,504.0805**	**0.0689**		**1,505.8021**

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	1.0809	23.5544	17.8738	0.0269		0.9036	0.9036		0.9036	0.9036	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**1.0809**	**23.5544**	**17.8738**	**0.0269**		**0.9036**	**0.9036**		**0.9036**	**0.9036**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.6 Building Construction - 2019

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	0.1507	3.9241	1.0793	8.3900e-003	0.2098	0.0272	0.2371	0.0604	0.0260	0.0865		887.3813	887.3813	0.0521		888.6842
Worker	0.3176	0.2326	2.2242	6.1900e-003	0.6490	4.3000e-003	0.6533	0.1721	3.9600e-003	0.1761		616.6992	616.6992	0.0168		617.1179
Total	**0.4683**	**4.1567**	**3.3034**	**0.0146**	**0.8588**	**0.0315**	**0.8903**	**0.2325**	**0.0300**	**0.2626**		**1,504.0805**	**1,504.0805**	**0.0689**		**1,505.8021**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	17.5969					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**17.8633**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.7 Architectural Coating - 2019

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	0.0643	0.0471	0.4505	1.2500e-003	0.1314	8.7000e-004	0.1323	0.0349	8.0000e-004	0.0357		124.9011	124.9011	3.3900e-003		124.9859
Total	**0.0643**	**0.0471**	**0.4505**	**1.2500e-003**	**0.1314**	**8.7000e-004**	**0.1323**	**0.0349**	**8.0000e-004**	**0.0357**		**124.9011**	**124.9011**	**3.3900e-003**		**124.9859**

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	17.5969					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1139	2.3524	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**17.7108**	**2.3524**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.7 Architectural Coating - 2019

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	0.0643	0.0471	0.4505	1.2500e-003	0.1314	8.7000e-004	0.1323	0.0349	8.0000e-004	0.0357		124.9011	124.9011	3.3900e-003		124.9859
Total	**0.0643**	**0.0471**	**0.4505**	**1.2500e-003**	**0.1314**	**8.7000e-004**	**0.1323**	**0.0349**	**8.0000e-004**	**0.0357**		**124.9011**	**124.9011**	**3.3900e-003**		**124.9859**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive 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	1.1949	5.8669	14.2302	0.0430	3.6876	0.0488	3.7363	0.9868	0.0459	1.0326		4,345.8365	4,345.8365	0.1778		4,350.2818
Unmitigated	1.2528	6.3247	15.5417	0.0484	4.1809	0.0546	4.2355	1.1188	0.0514	1.1701		4,887.7694	4,887.7694	0.1939		4,892.6177

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Industrial Park	750.48	273.60	80.21	1,537,970	1,356,490
Parking Lot	0.00	0.00	0.00		
Total	750.48	273.60	80.21	1,537,970	1,356,490

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
Industrial Park	9.50	7.30	7.30	59.00	28.00	13.00	79	19	2
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
Industrial Park	0.573139	0.040894	0.193976	0.114604	0.017740	0.005371	0.017133	0.024527	0.002545	0.002442	0.005942	0.000877	0.000812
Parking Lot	0.573139	0.040894	0.193976	0.114604	0.017740	0.005371	0.017133	0.024527	0.002545	0.002442	0.005942	0.000877	0.000812

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0532	0.4832	0.4059	2.9000e-003		0.0367	0.0367		0.0367	0.0367		579.7908	579.7908	0.0111	0.0106	583.2363
NaturalGas Unmitigated	0.0532	0.4832	0.4059	2.9000e-003		0.0367	0.0367		0.0367	0.0367		579.7908	579.7908	0.0111	0.0106	583.2363

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					
Industrial Park	4928.22	0.0532	0.4832	0.4059	2.9000e-003		0.0367	0.0367		0.0367	0.0367		579.7908	579.7908	0.0111	0.0106	583.2363
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		**0.0532**	**0.4832**	**0.4059**	**2.9000e-003**		**0.0367**	**0.0367**		**0.0367**	**0.0367**		**579.7908**	**579.7908**	**0.0111**	**0.0106**	**583.2363**

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					
Industrial Park	4.92822	0.0532	0.4832	0.4059	2.9000e-003		0.0367	0.0367		0.0367	0.0367		579.7908	579.7908	0.0111	0.0106	583.2363
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		**0.0532**	**0.4832**	**0.4059**	**2.9000e-003**		**0.0367**	**0.0367**		**0.0367**	**0.0367**		**579.7908**	**579.7908**	**0.0111**	**0.0106**	**583.2363**

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	2.7056	2.9000e-004	0.0316	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0674	0.0674	1.8000e-004		0.0719
Unmitigated	2.7056	2.9000e-004	0.0316	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0674	0.0674	1.8000e-004		0.0719

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	0.3230					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3796					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.9800e-003	2.9000e-004	0.0316	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0674	0.0674	1.8000e-004		0.0719
Total	**2.7056**	**2.9000e-004**	**0.0316**	**0.0000**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**		**0.0674**	**0.0674**	**1.8000e-004**		**0.0719**

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	0.3230					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3796					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.9800e-003	2.9000e-004	0.0316	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0674	0.0674	1.8000e-004		0.0719
Total	**2.7056**	**2.9000e-004**	**0.0316**	**0.0000**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**		**0.0674**	**0.0674**	**1.8000e-004**		**0.0719**

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

Los Medanos Industrial Park Mitigated

Bay Area AQMD Air District, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.01	-0.28	0.00	0.00	0.26	0.26	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.46	-0.10	-0.03	0.00	0.29	0.25	0.00	0.00	0.00	0.00	0.00	0.00
Demolition	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.61	0.06	-0.10	0.00	0.44	0.39	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.11	-0.32	-0.17	0.00	0.19	0.12	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	Tier 2	1	1	No Change	0.00
Concrete/Industrial Saws	Diesel	Tier 2	1	1	No Change	0.00
Cranes	Diesel	Tier 2	1	1	No Change	0.00
Excavators	Diesel	Tier 2	5	5	No Change	0.00
Forklifts	Diesel	Tier 2	3	3	No Change	0.00
Generator Sets	Diesel	Tier 2	1	1	No Change	0.00
Graders	Diesel	Tier 2	1	1	No Change	0.00
Pavers	Diesel	Tier 2	2	2	No Change	0.00
Paving Equipment	Diesel	Tier 2	2	2	No Change	0.00
Rollers	Diesel	Tier 2	2	2	No Change	0.00
Rubber Tired Dozers	Diesel	Tier 2	6	6	No Change	0.00
Scrapers	Diesel	Tier 2	2	2	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	Tier 2	9	9	No Change	0.00
Welders	Diesel	Tier 2	1	1	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	8.93000E-003	6.14900E-002	6.16800E-002	1.00000E-004	4.31000E-003	4.31000E-003	0.00000E+000	8.55340E+000	8.55340E+000	7.20000E-004	0.00000E+000	8.57146E+000
Concrete/Industrial Saws	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Cranes	1.47700E-002	1.76080E-001	6.72100E-002	1.70000E-004	7.46000E-003	6.87000E-003	0.00000E+000	1.51896E+001	1.51896E+001	4.81000E-003	0.00000E+000	1.53097E+001
Excavators	6.00000E-003	6.16800E-002	7.50500E-002	1.20000E-004	2.97000E-003	2.74000E-003	0.00000E+000	1.06648E+001	1.06648E+001	3.37000E-003	0.00000E+000	1.07491E+001
Forklifts	1.60700E-002	1.43550E-001	1.20020E-001	1.50000E-004	1.11200E-002	1.02300E-002	0.00000E+000	1.37962E+001	1.37962E+001	4.36000E-003	0.00000E+000	1.39053E+001
Generator Sets	1.48700E-002	1.26560E-001	1.24720E-001	2.20000E-004	7.57000E-003	7.57000E-003	0.00000E+000	1.89345E+001	1.89345E+001	1.20000E-003	0.00000E+000	1.89644E+001
Graders	5.60000E-003	7.56700E-002	2.11400E-002	8.00000E-005	2.43000E-003	2.23000E-003	0.00000E+000	6.86078E+000	6.86078E+000	2.17000E-003	0.00000E+000	6.91504E+000
Pavers	8.60000E-004	9.37000E-003	8.71000E-003	1.00000E-005	4.60000E-004	4.20000E-004	0.00000E+000	1.26688E+000	1.26688E+000	4.00000E-004	0.00000E+000	1.27690E+000
Paving Equipment	6.40000E-004	6.77000E-003	7.57000E-003	1.00000E-005	3.40000E-004	3.10000E-004	0.00000E+000	1.09766E+000	1.09766E+000	3.50000E-004	0.00000E+000	1.10634E+000
Rollers	6.80000E-004	6.72000E-003	5.72000E-003	1.00000E-005	4.40000E-004	4.10000E-004	0.00000E+000	7.06740E-001	7.06740E-001	2.20000E-004	0.00000E+000	7.12330E-001
Rubber Tired Dozers	1.30500E-002	1.38860E-001	4.92700E-002	1.00000E-004	6.77000E-003	6.23000E-003	0.00000E+000	8.82004E+000	8.82004E+000	2.79000E-003	0.00000E+000	8.88980E+000
Scrapers	2.45000E-002	2.97020E-001	1.85410E-001	3.50000E-004	1.16400E-002	1.07100E-002	0.00000E+000	3.12940E+001	3.12940E+001	9.90000E-003	0.00000E+000	3.15415E+001
Tractors/Loaders/Backhoes	2.58300E-002	2.59300E-001	2.55450E-001	3.40000E-004	1.73100E-002	1.59300E-002	0.00000E+000	3.09513E+001	3.09513E+001	9.79000E-003	0.00000E+000	3.11961E+001
Welders	1.29000E-002	5.44100E-002	6.05400E-002	9.00000E-005	3.34000E-003	3.34000E-003	0.00000E+000	6.30539E+000	6.30539E+000	1.05000E-003	0.00000E+000	6.33174E+000

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Air Compressors	3.82000E-003	7.88100E-002	6.13900E-002	1.00000E-004	3.19000E-003	3.19000E-003	0.00000E+000	8.55339E+000	8.55339E+000	7.20000E-004	0.00000E+000	8.57145E+000
Concrete/Industrial Saws	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Cranes	4.16000E-003	1.43730E-001	9.00500E-002	1.70000E-004	3.05000E-003	3.05000E-003	0.00000E+000	1.51895E+001	1.51895E+001	4.81000E-003	0.00000E+000	1.53097E+001
Excavators	4.63000E-003	1.01560E-001	9.01100E-002	1.20000E-004	3.12000E-003	3.12000E-003	0.00000E+000	1.06648E+001	1.06648E+001	3.37000E-003	0.00000E+000	1.07491E+001
Forklifts	7.26000E-003	1.49870E-001	1.16740E-001	1.50000E-004	6.06000E-003	6.06000E-003	0.00000E+000	1.37962E+001	1.37962E+001	4.36000E-003	0.00000E+000	1.39053E+001
Generator Sets	8.45000E-003	1.74450E-001	1.35890E-001	2.20000E-004	7.05000E-003	7.05000E-003	0.00000E+000	1.89344E+001	1.89344E+001	1.20000E-003	0.00000E+000	1.89644E+001
Graders	1.87000E-003	6.45300E-002	4.04300E-002	8.00000E-005	1.37000E-003	1.37000E-003	0.00000E+000	6.86077E+000	6.86077E+000	2.17000E-003	0.00000E+000	6.91504E+000
Pavers	5.50000E-004	1.20500E-002	1.06900E-002	1.00000E-005	3.70000E-004	3.70000E-004	0.00000E+000	1.26688E+000	1.26688E+000	4.00000E-004	0.00000E+000	1.27690E+000
Paving Equipment	4.80000E-004	1.04800E-002	9.30000E-003	1.00000E-005	3.20000E-004	3.20000E-004	0.00000E+000	1.09765E+000	1.09765E+000	3.50000E-004	0.00000E+000	1.10634E+000
Rollers	3.70000E-004	7.64000E-003	5.95000E-003	1.00000E-005	3.10000E-004	3.10000E-004	0.00000E+000	7.06740E-001	7.06740E-001	2.20000E-004	0.00000E+000	7.12330E-001
Rubber Tired Dozers	2.40000E-003	8.31600E-002	5.21000E-002	1.00000E-004	1.76000E-003	1.76000E-003	0.00000E+000	8.82003E+000	8.82003E+000	2.79000E-003	0.00000E+000	8.88979E+000
Scrapers	8.58000E-003	2.70830E-001	1.85790E-001	3.50000E-004	6.29000E-003	6.29000E-003	0.00000E+000	3.12940E+001	3.12940E+001	9.90000E-003	0.00000E+000	3.15415E+001
Tractors/Loaders/Backhoes	1.61500E-002	3.33560E-001	2.59820E-001	3.40000E-004	1.34800E-002	1.34800E-002	0.00000E+000	3.09512E+001	3.09512E+001	9.79000E-003	0.00000E+000	3.11960E+001
Welders	3.55000E-003	5.66300E-002	5.01400E-002	9.00000E-005	3.42000E-003	3.42000E-003	0.00000E+000	6.30538E+000	6.30538E+000	1.05000E-003	0.00000E+000	6.33173E+000

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	5.72228E-001	-2.81672E-001	4.70169E-003	0.00000E+000	2.59861E-001	2.59861E-001	0.00000E+000	1.16913E-006	1.16913E-006	0.00000E+000	0.00000E+000	1.16666E-006
Concrete/Industrial Saws	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Cranes	7.18348E-001	1.83723E-001	-3.39830E-001	0.00000E+000	5.91153E-001	5.56041E-001	0.00000E+000	1.31669E-006	1.31669E-006	0.00000E+000	0.00000E+000	1.30636E-006
Excavators	2.28333E-001	-6.46563E-001	-2.00666E-001	0.00000E+000	-5.05051E-002	-1.38686E-001	0.00000E+000	9.37668E-007	9.37668E-007	0.00000E+000	0.00000E+000	9.30309E-007
Forklifts	5.48227E-001	-4.40265E-002	2.73288E-002	0.00000E+000	4.55036E-001	4.07625E-001	0.00000E+000	7.24838E-007	7.24838E-007	0.00000E+000	0.00000E+000	1.43830E-006
Generator Sets	4.31742E-001	-3.78398E-001	-8.95606E-002	0.00000E+000	6.86922E-002	6.86922E-002	0.00000E+000	1.05628E-006	1.05628E-006	0.00000E+000	0.00000E+000	1.58191E-006
Graders	6.66071E-001	1.47218E-001	-9.12488E-001	0.00000E+000	4.36214E-001	3.85650E-001	0.00000E+000	1.45756E-006	1.45756E-006	0.00000E+000	0.00000E+000	0.00000E+000
Pavers	3.60465E-001	-2.86019E-001	-2.27325E-001	0.00000E+000	1.95652E-001	1.19048E-001	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Paving Equipment	2.50000E-001	-5.48006E-001	-2.28534E-001	0.00000E+000	5.88235E-002	-3.22581E-002	0.00000E+000	9.11029E-006	9.11029E-006	0.00000E+000	0.00000E+000	0.00000E+000
Rollers	4.55882E-001	-1.36905E-001	-4.02098E-002	0.00000E+000	2.95455E-001	2.43902E-001	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rubber Tired Dozers	8.16092E-001	4.01123E-001	-5.74386E-002	0.00000E+000	7.40030E-001	7.17496E-001	0.00000E+000	1.13378E-006	1.13378E-006	0.00000E+000	0.00000E+000	1.12488E-006
Scrapers	6.49796E-001	8.81759E-002	-2.04951E-003	0.00000E+000	4.59622E-001	4.12698E-001	0.00000E+000	9.58650E-007	9.58650E-007	0.00000E+000	0.00000E+000	1.26817E-006
Tractors/Loaders/Backhoes	3.74758E-001	-2.86386E-001	-1.71071E-002	0.00000E+000	2.21259E-001	1.53798E-001	0.00000E+000	1.29235E-006	1.29235E-006	0.00000E+000	0.00000E+000	1.28221E-006
Welders	7.24806E-001	-4.08013E-002	1.71787E-001	0.00000E+000	-2.39521E-002	-2.39521E-002	0.00000E+000	1.58594E-006	1.58594E-006	0.00000E+000	0.00000E+000	1.57934E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
No	Replace Ground Cover of Area Disturbed	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
No	Water Exposed Area	PM10 Reduction	0.00	PM2.5 Reduction	0.00	Frequency (per day)	

No	Unpaved Road Mitigation	Moisture Content %	0.00	Vehicle Speed (mph)	0.00		
No	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.03	0.01	0.03	0.01	0.00	0.00
Demolition	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Demolition	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Grading	Fugitive Dust	0.07	0.04	0.07	0.04	0.00	0.00
Grading	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	4.56	7.11	8.78	10.95	10.74	10.73	0.00	11.06	11.06	8.56	0.00	11.05
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting: Suburban Center

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value 3
No	Land Use	Increase Density	0.00	0.00	0.00	
No	Land Use	Increase Diversity	0.09	0.30		
No	Land Use	Improve Walkability Design	0.00	0.00		
No	Land Use	Improve Destination Accessibility	0.00	0.00		
Yes	Land Use	Increase Transit Accessibility	0.18	0.20		
No	Land Use	Integrate Below Market Rate Housing	0.00	0.00		
	Land Use	Land Use SubTotal	0.10			

Yes	Neighborhood Enhancements	Improve Pedestrian Network	2.00	Project Site and Connecting Off-Site		
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.02			
No	Parking Policy Pricing	Limit Parking Supply	0.00	0.00		
No	Parking Policy Pricing	Unbundle Parking Costs	0.00	0.00		
No	Parking Policy Pricing	On-street Market Pricing	0.00	0.00		
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00	0.00		
No	Transit Improvements	Expand Transit Network	0.00	0.00		
No	Transit Improvements	Increase Transit Frequency	0.00		0.00	
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.12			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"	4.50			
No	Commute	Workplace Parking Charge		0.00		
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program	10.00			
	Commute	Commute Subtotal	0.00			

No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.12			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	100.00
No	Use Low VOC Paint (Residential Exterior)	150.00
No	Use Low VOC Paint (Non-residential Interior)	100.00
No	Use Low VOC Paint (Non-residential Exterior)	150.00
No	Use Low VOC Paint (Parking)	150.00
No	% Electric Lawnmower	
No	% Electric Leafblower	
No	% Electric Chainsaw	

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24		
No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy		
No	Use Reclaimed Water		
No	Use Grey Water		
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction		
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape		

Solid Waste Mitigation

Mitigation Measures	Input Value

Institute Recycling and Composting Services Percent Reduction in Waste Disposed	