OAKLEY

CALIFORNIA

California Environmental Quality Act (CEQA)

Initial Study

for

Acorn Self-Storage

(GPA 04-16, RZ 06-16, DR 13-16)

June 2016

Prepared by

RANEY PLANNING & MANAGEMENT, INC.
1501 Sports Drive, Suite A, Sacramento, CA 95834

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INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

A. BACKGROUND

1. Project Title: Acorn Self-Storage

2. Lead Agency Name and Address: City of Oakley
3231 Main Street
Oakley, CA 94561

3. Contact Person and Phone Number: Joshua McMurray
Planning Manager
(925) 625-7004

4. Project Location: 4275 Neroly Road
Assessor's Parcel Number (APN) 041-021-025

5. Project Sponsor: Jim Moita
JMI Properties Corporation
5205 Railroad Avenue
Pittsburg, CA 94565

6. Existing General Plan: Single-Family Low Density Residential (SL)

7. Proposed General Plan: Commercial (CO)

8. Existing Zoning: Unzoned

9. Proposed Zoning: Planned Development (P-1)

10. Project Description Summary:

Application requesting approval of: 1) a General Plan Amendment (GPA 04-16) to amend the land use designation from Single-Family Low Density Residential(SL) to Commercial (CO); 2) a Rezone (RZ 06-16) from unzoned to Planned Development (P-1); and 3) Design Review to construct an approximately 4.671-acre self-storage facility including an office and resident manager's building southwest of Neroly Road, 4275 Neroly Road (APN 041-021-025).

B. SOURCES

All technical reports and modeling results prepared for the project analysis are available upon request at the City of Oakley City Hall, located at 3231 Main Street, Oakley, CA 94561. The following documents are referenced information sources utilized by this analysis:

1. Bay Area Air Quality Management District. *CEQA Air Quality Guidelines*. May 2012 (updated January 16, 2014).
2. California Department of Fish and Wildlife. *California Natural Diversity Database*. Available at http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp. Accessed June 2016.
3. California Emissions Estimator Model. *CalEEMod*. Version 2011.1. Accessed on June 2016.
4. California Environmental Protection Agency, California Air Resources Board. *Air Quality and Land Use Handbook: A Community Health Perspective*. Published April 2005.
5. City of Oakley, Oakley 2020 General Plan, December 2002.
6. City of Oakley, Oakley 2020 General Plan Background Report, September 2001.
7. City of Oakley, Oakley 2020 General Plan Environmental Impact Report, December 2002.
8. City of Oakley. *Oakley Commercial & Industrial Design Guidelines*. February 2005.
9. City of Oakley. *Oakley Municipal Code*. Accessible at http://www.codepublishing.com/CA/Oakley/. Passed May 10, 2016.
10. CMI Engineering & Construction. *Stormwater Control Plan for Acorn Self Storage Facility – Oakley*. March 2016.
11. Contra Costa Transportation Authority. *2011 Contra Costa Congestion Management Program [page 62*]. Adopted November 16, 2011.
12. Diablo Water District. *Final 2010 Urban Water Management Plan*. June 2011.
13. East Contra Costa County Habitat Conservation Plan Association. *Final East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan.* Published October 2006.
14. Federal Emergency Management Agency, National Flood Insurance Program. *Flood Insurance Rate Map Number* 06013C0355F Effective June 16, 2009.
15. Institute of Transportation Engineers. *Trip Generation Handbook – 9th Edition*. September 2012.
16. Northwest Information Center, California Historical Resources Information System. *Record Search Results for the Proposed Acorn Self-Storage Project; 4275 Neroly Road, Oakley, CA 94561.* June 27, 2016.
17. State of California, Natural Resources Agency, Department of Conservation. *Contra Costa County Important Farmland 2012*. Published April 2014.
18. U.S. Department of Transportation. Federal Highway Administration. *Noise Barrier Design Handbook*. Available at http://www.fhwa.dot.gov/environment/noise/noise_barriers/design_construction/design/design03.cfm. Accessed on June 6, 2016.

C. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is “Less Than Significant With Mitigation Incorporated” as indicated by the checklist on the following pages.

☐ **Aesthetics**	☐ **Agriculture and Forestry Resources**	☐ **Air Quality**
✖ **Biological Resources**	✖ **Cultural Resources**	☐ **Greenhouse Gas Emissions**
✖ **Geology and Soils**	✖ **Hazards and Hazardous Materials**	☐ **Hydrology and Water Quality**
☐ **Land Use and Planning**	☐ **Mineral Resources**	☐ **Noise**
☐ **Population and Housing**	☐ **Public Services**	☐ **Recreation**
☐ **Transportation/Circulation**	☐ **Utilities and Service Systems**	☐ **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.

Signature	Date
Joshua McMurray	City of Oakley
Printed Name	For

E. BACKGROUND AND INTRODUCTION

This Initial Study/Mitigated Negative Declaration (IS/MND) provides an environmental analysis pursuant to the California Environmental Quality Act (CEQA) for the proposed project. The applicant has submitted this application to the City of Oakley, which is the Lead Agency for the purposes of CEQA review. The IS/MND contains an analysis of the environmental effects of construction and operation of the proposed project.

In December 2002, the City of Oakley adopted the Oakley General Plan and the Oakley General Plan Environmental Impact Report (EIR). The General Plan EIR was a program-level EIR, prepared pursuant to Section 15168 of the CEQA Guidelines (Title 14, California Code of Regulations, Sections 15000 *et seq*.). The General Plan EIR analyzed full implementation of the Oakley General Plan and identified measures to mitigate the significant adverse project and cumulative impacts associated with the General Plan. Pursuant to CEQA Guidelines Section 15150(a), the City of Oakley General Plan and General Plan EIR are incorporated by reference. Both documents are available at the City of Oakley, 3231 Main Street, Oakley, CA 94561.

The impact discussions for each section of this IS/MND have been largely based on information in the *Oakley General Plan* and the *Oakley General Plan* EIR*,* as well as the *Stormwater Control Plan for Acorn Self Storage Facility – Oakley*, which was prepared for the proposed project.

The mitigation measures prescribed for environmental effects described in this IS/MND would be implemented in conjunction with the project, as required by CEQA, and the mitigation measures would be incorporated into the project. In addition, findings and a project Mitigation Monitoring and Reporting Program (MMRP) would be adopted in conjunction with approval of the project.

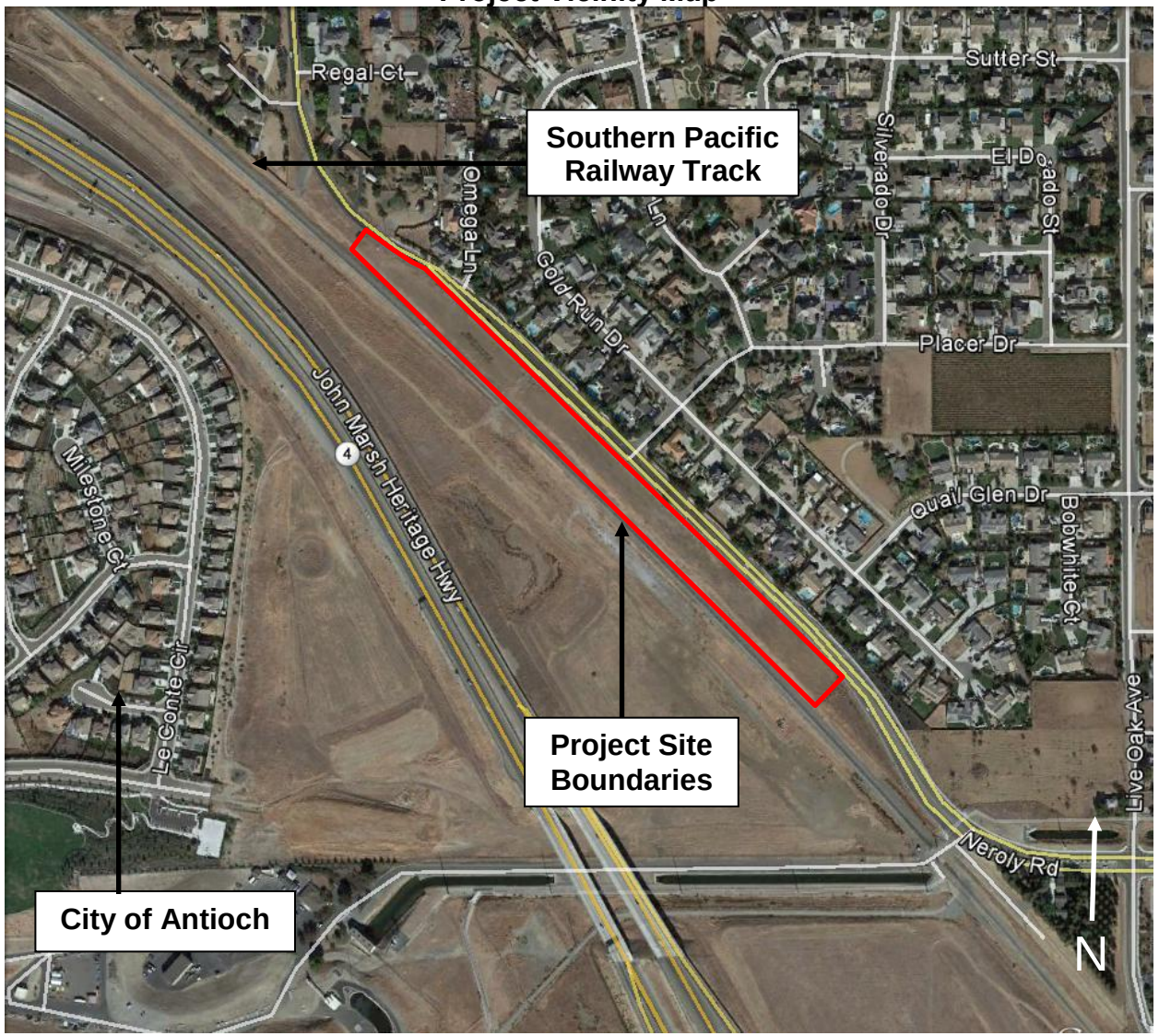
F. PROJECT DESCRIPTION

The following Section includes a description of the project's location and surrounding land uses, as well as a discussion of the project components and discretionary actions requested of the City of Oakley by the project.

Project Location and Surrounding Land Uses

The project site is located in the City of Oakley at 4275 Neroly Road (APN 041-021-025). The site is bordered by the Southern Pacific (SP) Railway tracks to the west, and Neroly Road to the east. Surrounding land uses include single-family residences to the north and west of the project site, undeveloped land to the east, and undeveloped land across the SP Railway tracks to the west of the project site. Further west of the train tracks is State Route (SR) 4 and single-family residences within the City of Antioch (see Figure 1).

Figure 1
Project Vicinity Map



Project Components

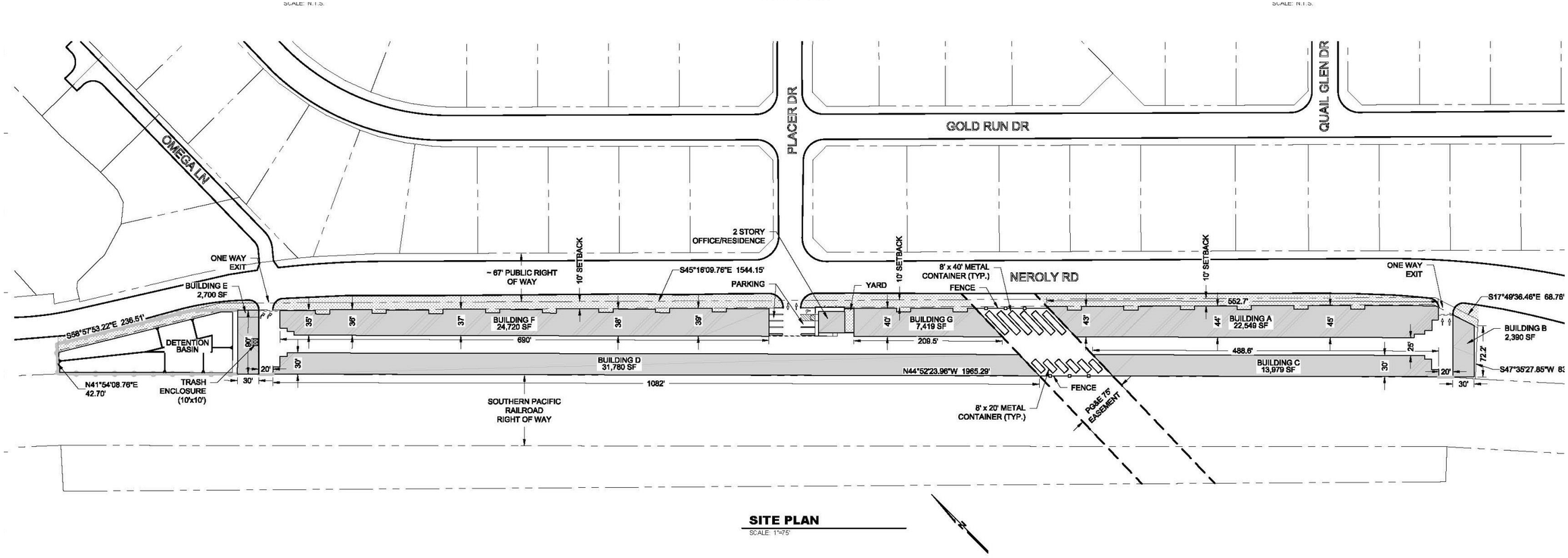
The proposed project includes the construction of a self-storage facility on approximately 4.7 acres of vacant land. The facility would consist of seven self-storage buildings, totaling 107,758 square feet (sf), several metal storage containers, and a combined office and manager's residence totaling 2,200 sf over two stories (see Figure 2). The project site would have one combined entrance and exit point, as well as two other separate exit points providing access to and from the site off Neroly Road. Utility connections would be made to existing storm drains and water systems on Neroly Road, and sewer line connections would be made at the intersection of Placer Drive and Gold Run Road. The proposed project also includes the incorporation of photovoltaic solar panels on the roof of the storage buildings, which would provide a renewable, low carbon intensity source of energy.

Discretionary Actions

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

- Adoption of the Initial Study/Mitigated Negative Declaration;
- Adoption of the Mitigation Monitoring and Reporting Program;
- Approval of a General Plan Amendment (GPA 04-16) to amend the land use designation from Single-Family Low Density Residential (SL) to Commercial (CO);
- Approval of a Rezone (RZ 06-16) from unzoned to Planned Development (P-1); and
- Approval of Design Review (DR 13-16) to construct a self-storage facility.

Figure 2
Site Plan



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 area identified in the checklist. Included in each discussion are project-specific mitigation measures required, where necessary, as part of the proposed project.

For this checklist, the following designations are used:

Potentially Significant Impact: An impact that could be significant, and for which mitigation has not 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.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
I. AESTHETICS. *Would the project:*					
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.	Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	✖	☐
d.	Create a new source of substantial light or glare which would adversely affect day or night-time views in the area?	☐	☐	✖	☐

Discussion

a. Scenic resources in Oakley, as defined in the City's General Plan, include predominant natural landscape features such as the Delta, Dutch Slough, Marsh Creek, the Contra Costa Canal, agricultural and other open space lands, as well as views of Mount Diablo to the west. The City of Oakley does not specifically identify scenic vistas within the City's planning area, but the conclusion could be drawn that any development which would impact views of any of the aforementioned landscape features would result in an impact to scenic vistas. The proposed project site does not afford views of the Delta, Dutch Slough, or Marsh Creek, or agricultural or open space lands. However, a portion of the Contra Costa Canal is located 600 feet south of the proposed project site. Potential views of the canal from the project site are blocked by the topography of the intervening landscape and the SP railway tracks bordering the site. Additionally, Mount Diablo is visible from portions of the project site along Neroly Road, and presumably from many of the single-family residences on Neroly Road as well. Because construction of the project would place buildings in between the existing single-family residences and Mount Diablo, the proposed project would have the potential to obstruct or alter views of Mount Diablo. The proposed project would involve the construction of mostly single-story storage buildings with a maximum height of 11.5 feet. The manager's office and residence would be the only two-story building on the project site, which would have a maximum height of 35 feet and four inches, with the uppermost 9.5 feet being a small central clock tower building element. The height of the self-storage

buildings and the majority of the office and manager's residence would be comparable to the single- and two-story residences along Neroly Road. Therefore, it is likely that many of the views of Mount Diablo existing in nearby two-story residences would not be obstructed by the relatively low self-storage facilities. Additionally, a barrier wall currently exists along the east side of Neroly Road. The barrier wall would already block the available view of Mount Diablo from any single-story home in the area, and from all backyard areas along Neroly Road. The project site is currently designated by the City of Oakley General Plan as single-family low density residential. Therefore, buildout of the project site by single-family residences was anticipated by the City. Such residences could have been one- or two-story buildings and would have similarly impacted views of Mount Diablo. Given that most of the proposed project would be developed to a height of 11.5 feet with only the manager's residence reaching two stories, the project would result in an impact similar to what was anticipated for the project site under General Plan buildout conditions. As a result, the project would not create a significant impact not already anticipated by the General Plan or the General Plan EIR. Because the proposed project not designated as a scenic vista by the City of Oakley and the project would not create an impact significantly more severe than what was anticipated by the General Plan, the proposed project would not be expected to have a substantial adverse effect on a scenic vista, resulting in a ***less-than-significant*** impact.

b. According to the California Scenic Highway Mapping System, administered by Caltrans, a portion of SR 4, from the intersection of SR 4 with SR 160, west toward the Contra Costa County line is eligible for State Scenic Highway designation. The proposed project is located 400 feet east of SR 4 within the section of the roadway eligible for state designation. However, a large barrier wall along SR 4 blocks all views of the project site from SR 4. Additionally, the project site is currently characterized by ruderal vegetation with only one small tree. Rock outcroppings, structures or other resources that would be considered significant given the project site's proximity to a roadway eligible for State Scenic Highway designation are absent from the project site. Because the project site is not visible from SR 4 and significant scenic resources do not exist on the project site, the proposed project would not damage scenic resources within a State Scenic Highway and consequently result in a ***less-than-significant*** impact.

c. The project site is a vacant property bordered by Neroly Road and single-family residences to the east, and the SP railway tracks as well as SR 4 to the west. The development of the proposed project would place structures on a vacant site which would change the visual character. However, the City has adopted Commercial & Industrial Design Guidelines which are intended to integrate new development into the existing fabric of Oakley, and preserve the City's human scale and sense of place. The City's Design Review of the proposed project would include compliance with the Guidelines which would ensure that the proposed project would be compatible with the surrounding area and the visual

quality would not be substantially degraded. Therefore, the impact would be considered ***less than significant***.

d. The proposed project would include the installation of parking lot and building lighting. The City's Commercial & Industrial Design Guidelines require that site lighting incorporate cut-offs to prevent spill-over laterally onto adjacent properties and upwards into the night sky. Compliance with City's Commercial & Industrial Design Guidelines would ensure that the proposed project would not result in the addition of a substantial source of light or glare. Therefore, the creation of new sources of light and glare by the project would be considered a ***less-than-significant*** impact.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
II. AGRICULTURE RESOURCES. *In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:*					
a.	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping 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 individually or cumulatively result in loss of Farmland to non-agricultural use?	☐	☐	☐	✖

Discussion

a,e. The proposed project site is designated as “Urban and Built-Up Land” and “Other Land” on the Contra Costa County Important Farmland Map 2012 published by the Department of Conservation. Other Land is land not included in any other mapping category. Common examples include low density rural developments, as well as vacant and nonagricultural land surrounded on all sides by urban development. Because the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural uses or involve changes which could cumulatively result in loss of Farmland, ***no impact*** would occur.

b. The project site is not currently zoned, and consequently the project would not conflict with any agricultural use zoning for the project site. Additionally, the site is not under a Williamson Act contract. Completion of the proposed project would not conflict with existing zoning for agricultural use and would not conflict with a Williamson Act contract. Therefore, ***no impact*** would occur.

c,d. The project site 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 land or any potential conflict with forest land, timberland, or Timberland Production zoning.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
III. AIR QUALITY. *Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:*					
a.	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	✖	☐
b.	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	✖	☐
c.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	✖	☐
d.	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	✖	☐
e.	Create objectionable odors affecting a substantial number of people?	☐	☐	✖	☐

Discussion

a-c. The City of Oakley 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), who regulates air quality in the San Francisco Bay Area. The SFBAAB area is currently designated as a nonattainment area for the State and federal ozone, State and federal particulate matter 2.5 microns in diameter ($PM_{2.5}$), and State particulate matter 10 microns in diameter (PM_{10}) standards. The SFBAAB is designated attainment or unclassified for all other ambient air quality standards (AAQS). It should be noted that on January 9, 2013, the U.S. Environmental Protection Agency (EPA) 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 EPA, and the EPA 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 (MTC) 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 EPA on November 30, 2001 for review and approval. The most recent State ozone plan is the 2010 Clean Air Plan (CAP), adopted on September 15, 2010. The 2010 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 2010 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 (TCMs) to be implemented in the region to attain the State and federal standards 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, or PM_{10}, 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}	82	82	15
$PM_{2.5}$	54	54	10

Source: BAAQMD, CEQA Guidelines, May 2010.

It should be noted that the BAAQMD resolutions adopting and revising the 2010 significance thresholds were set aside by the Alameda County Superior Court on March 5, 2012. The Alameda Superior Court did not determine whether the

thresholds were valid on their merits, but found that the adoption of the thresholds was a project under CEQA, necessitating environmental review. The BAAQMD subsequently appealed the Alameda County Superior Court's decision. The Court of Appeal of the State of California, First Appellate District, reversed the trial court's decision. The Court of Appeal's decision was appealed to the California Supreme Court, which granted limited review confined to the questions of under what circumstances, if any, does CEQA require an analysis of how existing environmental conditions will impact future residents or users (receptors) of a proposed project? On review, the Supreme Court rejected the BAAQMD's argument that CEQA requires an analysis of the environment's impact on a project in every instance. Rather, the Court held that CEQA review should be "limited to those impacts on a project's users or residents that arise from the project's effects on the environment." Ultimately, the Supreme Court reversed the Court of Appeal's decision and remanded the matter back to the appellate court to reconsider the case in light of the Supreme Court's opinion. The California Supreme Court did not review the underlying question whether adoption of the thresholds is a project under CEQA, and no court has indicated that the thresholds lack evidentiary support. The BAAQMD continues to provide direction on recommended analysis methodologies, but have withdrawn the recommended quantitative significance thresholds for the time being. The May 2012 BAAQMD CEQA Air Quality Guidelines state that lead agencies may reference the Air District's 1999 Thresholds of Significance available on the Air District's website. Lead agencies may also reference the Air District's CEQA Thresholds Options and Justification Report developed by staff in 2009. The CEQA Thresholds Options and Justification Report, available on the District's website, outlines substantial evidence supporting a variety of thresholds of significance. The air quality and GHG analysis in this IS/MND uses the previously-adopted 2010 thresholds of significance to determine the potential impacts of the proposed project, as the 2010 thresholds are supported by substantial evidence.

The proposed project's construction and operational emissions were quantified using the California Emissions Estimator Model (CalEEMod) software version 2013.2.2 - 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 based on the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 9th Edition, vehicle mix, trip length, average speed, etc. Where project-specific information is available, such information should be applied in the model. As such, the proposed project's modeling assumed the following:

- Construction was assumed to commence in March 2017 and would occur over an approximately one-and-a-half-year period;

- An average daily trip rate of 2.5 was assumed for the self-storage facility, and an average daily trip rate of 9.52 was assumed for the manager's residence, based on the ITE *Trip Generation Manual*;
- The proposed project would include an approximately 700 kWh on-site rooftop solar photovoltaic system;
- All construction equipment would comply with EPA Tier 2 engine standards or better;
- The project would require the import of approximately 5,333 cubic yards of soil during grading, which would be imported from an adjacent property also owned by the project applicant;
- A total of approximately six acres would be disturbed during the grading phase of construction;
- The manager's residence would have a natural gas fireplace;
- The project would be required to comply with the current California Building Energy Efficiency Standards Code; and
- The carbon dioxide intensity factor was adjusted based on PG&E's anticipated progress towards statewide Renewable Portfolio Standard goals.

The proposed project's estimated emissions associated with construction and operations are presented and discussed in further detail below.

Construction Emissions

According to the CalEEMod results, the proposed project would result in maximum 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.

Table 2
Maximum Unmitigated Construction Emissions (lbs/day)

	ROG	**NO_X**	**PM_{10}**	**$PM_{2.5}$**
Project Construction Emissions	20.60	24.23	6.76	3.88
Thresholds of Significance	54	54	82	54
Exceeds Threshold?	**NO**	**NO**	**NO**	**NO**

Source: CalEEMod, June 2016 (see Appendix A).

In addition, 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 exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be

removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
8. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations. [1]

As such, the proposed project would implement the BAAQMD's Basic Construction Mitigation Measures listed above, to the extent that the measures are feasible for the proposed project's construction activities. Compliance with the aforementioned measures would help to further minimize any construction-related emissions.

Because the proposed project would be below the applicable thresholds of significance for construction emissions, the proposed project would not be considered to result in a significant air quality impact during construction.

Operational Emissions

According to the CalEEMod results, the proposed project would result in maximum 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. Because the proposed project's operational emissions would be below the applicable thresholds of significance, the proposed project would not be considered to result in a significant air quality impact during operations.

[1] Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines [Table 8-2]*. Updated May 2010.

Table 3 Maximum Unmitigated Operational Emissions				
	ROG	**NO_X**	**PM_{10}**	**$PM_{2.5}$**
Average Daily Emissions (lbs/day)				
Project Operational Emissions	3.64	2.54	1.72	0.49
Thresholds of Significance	54	54	82	54
Exceeds Threshold?	**NO**	**NO**	**NO**	**NO**
Maximum Annual Emissions (tons/year)				
Project Operational Emissions	0.65	0.44	0.30	0.09
Thresholds of Significance	10	10	15	10
Exceeds Threshold?	**NO**	**NO**	**NO**	**NO**
Source: CalEEMod, June 2016 (see Appendix A).				

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. Because the proposed project would result in emissions below the applicable thresholds of significance, the project would not be expected to 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 2010 CAP. According to BAAQMD, if a project would not result in significant and unavoidable air quality impacts, after the application of all feasible mitigation, the project may be considered consistent with the air quality plans. Because the proposed project would result in emissions below the applicable thresholds of significance, the project would not be considered to conflict with or obstruct implementation of regional air quality plans.

Because the proposed project would not conflict with or obstruct implementation of the applicable air quality plans, violate any air quality standards or contribute

substantially to an existing or projected air quality violation, or result in a cumulatively considerable net increase in any criteria air pollutant, impacts would be considered ***less than significant***.

d. 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. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, childcare centers, playgrounds, retirement homes, convalescent homes, hospitals, and medical clinics. The proposed project would not involve the construction of any new land uses that would be considered sensitive receptors. However, the nearest existing sensitive receptors to the site would be the single-family residences east of Neroly Road.

The major pollutant concentrations of concern are localized carbon monoxide (CO) emissions and Toxic Air Contaminants (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. CO emissions are particularly related to traffic levels.

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.).

According to the Contra Costa Transportation Authority (CCTA) Congestion Management Plan (CMP), any land development application generating more than 100 peak hour trips is required to prepare a study of the project's traffic impacts on the CMP network.[2] As discussed in the Transportation/Traffic section of this IS/MND, the proposed project is anticipated to induce 279 total daily trips, 16 AM peak hour trips, and 29 PM peak hour trips.

The main roadways in the project vicinity would be Neroly Road, Main Street, and Laurel Road. The proposed project's increase of a maximum of 28 new peak hour trips, would not increase traffic volumes at nearby intersections to more than the hourly traffic volumes set forth in the BAAQMD's localized CO screening criteria. Additionally, the CCTA CMP was drafted using demand projections based on General Plan land use designations for the area. Although the project requires a redesignation of the project site from single-family low density residential to commercial, the self-storage facility proposed as part of the project would not be expected to significantly increase the traffic demand in the area. Unlike industrial land uses or heavy commercial uses, the self-storage facility would generate relatively few daily trips (as discussed above and in further depth in the Transportation/Traffic section of this IS/MND), and would be generally comparable to the previously anticipated single-family residential developments. As a result, the project would be generally consistent with the applicable CMP because the land use would not be significantly different than what was expected for the proposed project site. Therefore, the proposed project would not be expected to result in substantial levels of localized CO at surrounding intersections or generate localized concentrations of CO that would exceed standards.

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, gasoline stations, freeways and high traffic roads, distribution centers, and rail yards.

Because the proposed project is not a sensitive receptor, the proposed project would not involve siting a new sensitive receptor within any recommended setback distance of any existing source of TACs. Additionally, a self-storage facility would not itself be considered a major source of TACs, and therefore would not expose nearby sensitive receptors to TAC emissions.

[2] Contra Costa Transportation Authority. 2011 Contra Costa Congestion Management Program [page 62]. Adopted November 16, 2011.

The CARB also identifies diesel particulate matter (DPM) from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant heavy diesel semi-truck traffic (such as distribution centers) are identified as having the highest associated health risks from DPM. Health risks from TACs are a function of both the concentration of emissions and the duration of exposure. Health-related risks associated with DPM in particular are primarily associated with long-term exposure and associated risk of contracting cancer.

The CARB handbook identifies significant sources of DPM as land uses accommodating 100 heavy diesel semi-trucks per day. Although the self-storage facility would involve increased vehicle traffic in the area, the project would not be expected to attract 100 or more diesel semi-trucks to the area. As such the proposed project would not generate a substantial amount of DPM per the CARB handbook.

Short-term, construction-related activities could result in the generation of DPM, from on-road haul trucks and off-road equipment exhaust emissions. However, construction is temporary and occurs over a relatively short duration in comparison to the operational lifetime of the proposed project, particularly so for the proposed project, as the construction activities would likely occur over a year and a half (based on applicant information). 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. In addition, per the City of Oakley Municipal Code, construction activities would be limited to daytime hours only.

Because construction equipment on-site would not operate for any long periods of time and would be used 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. Health risks associated with TACs are a function of the concentration of emissions, the proximity of receptors to the emissions, and the duration of exposure, where the higher the concentration, closer the receptor is to the emission, and/or the longer the period of time that a sensitive receptor is exposed to pollutant concentrations would correlate to a higher health risk. Due to the temporary nature of construction and the relatively short duration of potential exposure to associated emissions, sensitive receptors in the area would not be exposed to pollutants for a permanent or substantially extended period of time.

Considering the short-term nature of construction activities, the regulated and intermittent nature of the operation of construction equipment, and the highly dispersive nature of DPM, the likelihood that any one sensitive receptor would be

exposed to high concentrations of DPM for any extended period of time would be low. For the aforementioned reasons, project construction would not be expected to expose sensitive receptors to substantial pollutant concentrations.

Conclusion

Based on the above considerations, the proposed project would not cause sensitive receptors to be exposed to substantial pollutant concentrations, including localized CO or TACs, and impacts related to such would be ***less than significant***.

e. 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.

Some odor may occur during construction due to the use of diesel-fueled engines and equipment. However, as discussed above, construction activities would be temporary, and operation of construction equipment would be regulated and intermittent. Accordingly, substantial objectionable odors would not be expected to occur during construction activities or affect a substantial number of people.

For the aforementioned reasons, construction and operation of the proposed project would not create objectionable odors, nor would the project site be affected by any existing sources of substantial objectionable odors; and a ***less-than-significant*** impact would result.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES. *Would the project:*					
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 Game 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 Game or US Fish and Wildlife Service?	☐	☐	✖	☐
c.	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (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 also include other species that are considered rare enough by the scientific community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or denning locations, communal roosts, and other essential habitat. The presence of species with legal protection under the Endangered Species Act often represents a major constraint to development, particularly when the species are wide-ranging or highly sensitive to habitat disturbance and where proposed development would result in a take of these species. The California Department of Fish and Wildlife 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. The CNDDB query returned 61 total species, 23 of which are plants and 37 of which are animals. The habitat requirements of all 61 species were subsequently compared to habitat types available on the project site to determine the likelihood of each special-status species occurring at the project site.

According to Figure 3-3: *Landcover in the Inventory Area* of the East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan (ECCC HCP/NCCP), the entire 4.671-acre project site is classified as grassland. The Physical and Biological Resources Chapter of the ECCC HCP/NCCP defines grassland as having less than five percent canopy cover and being dominated by introduced grasses such as wild oats, brome grasses, and annual fescues.[3] However, while the ECCC HCP/NCCP categorizes the site as grassland, a more fitting designation may be ruderal. Ruderal vegetation is characterized as sparse nonnative, typically weedy vegetation on vacant parcels surrounded by developed areas. A key factor in distinguishing a grassland from ruderal vegetation is the frequency of disturbance, with grassland experiencing infrequent disturbance and ruderal vegetation experiencing more frequent disturbance.[4] The proposed project site is regularly disturbed and has been disked in the recent past, is dominated by sparse weedy vegetation, and is surrounded by urban development. Therefore, the proposed project site can also be considered ruderal vegetation. For the purposes of this analysis, the ECCC

[3] East Contra Costa County Conservancy. *Final East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan, Chapter 3 Physical and Biological Resources [p. 3-8-9].* Updated December 19, 2006.

[4] East Contra Costa County Conservancy. *Final East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan, Chapter 3 Physical and Biological Resources [p. 3-11].* Updated December 19, 2006.

HCP/NCCP designation of grassland will be used to generate a conservative list of special-status species that could use the project site as potential habitat.

It should be noted that while the *Landcover in the Inventory Area* figure of the ECCC HCP/NCCP designates the site as grassland, the *East Contra Costa County HCP/NCCP Development Fee Zones* figure of the ECCC HCP/NCCP concurrently designates the site as urban. The difference in designations originates from the methods used to create each map. The *Landcover in the Inventory Area* Figure of the ECCC HCP/NCCP was drafted using analysis of aerial imagery to determine the dominant land cover type. Land cover designations in the *Landcover in the Inventory Area* were then assigned solely on what land cover currently occurs on the project site, with no weight given to surrounding land uses or habitat value. The *East Contra Costa County HCP/NCCP Development Fee Zones* figure of the ECCC HCP/NCCP, on the other hand, generally considered dominant land cover types, but focused on the severity of potential impacts resulting from development within the plan area. Factors such as surrounding land uses, disturbance history, and habitat value were used to determine whether land was “urban” or “other” within the *East Contra Costa County HCP/NCCP Development Fee Zones* figure. Because the two figures of the ECCC HCP/NCCP used different methods to designate land cover types, the maps can contain different designations for the same site. In regards to the presence or absence of species of special-concern, the grassland land cover type designated in the *Landcover in the Inventory Area* figure of the ECCC HCP/NCCP was used to provide a more conservative analysis. However, the *East Contra Costa County HCP/NCCP Development Fee Zones* figure is used to determine the habitat impact anticipated by the ECCC HCP/NCCP and to calculate any required fees.

Of the 23 special-status plant species which are known to have occurred within a five-mile radius of the project site, 17 of the special-status species were removed from further consideration due to the project site’s lack of key habitat features for each of the 17 species. Habitat requirements for the 17 species removed from consideration included the presence of wetland habitats (see the discussion for questions b and c below for a further discussion of wetlands), aquatic areas, serpentine soils, interior dunes, and slopes. The project site does not contain any of the aforementioned key habitat requirements, and therefore the project site was only considered to be potential habitat for the remaining six species. The remaining species, stinkbells (*Fritillaria agrestis*), shining navarretia (*Navarretia nigelliformis ssp. Radians*), showy golden madia (*Madia radiata*), Mt. Diablo buckwheat (*Eriogonum truncatum*), round-leaved filaree (*California macrophylla*), and brittlescale (*Atriplex depressa*) use valley grassland for habitat and, because the ECCC HCP/NCCP classifies the site as grassland, the project site could provide habitat for the species. Heavy site disturbance caused by disking and the isolation of the site from other grassland habitats makes the presence of these species unlikely; however, without a pre-construction survey conclusively eliminating the possibility of the presence of protected plant species, the

proposed project would result in a potential impact to the aforementioned species.

The proposed project site meets the habitat requirements for five of the 37 animal species identified by the CNDDB. The project site's disturbed grassland/ruderal vegetation provides marginal foraging habitat for the State threatened Swainson's hawk (*Buteo swainsoni*), California Department of Fish and Wildlife (CDFW) species of special concern the American badger (*Taxidea taxus*), and the CDFW fully protected species the white-tailed kite (*Elanus leucurus*); however, the lack of tall on-site trees makes the site unsuitable nesting habitat for both Swainson's hawks and white-tailed kites. Foraging habitat for white-tailed kites is not currently protected, and because the site lacks nesting habitat, the proposed project would not have an impact on white-tailed kites. However, it is currently unknown whether trees suitable for Swainson's hawk nests occur within 1,000 feet of the project site. Disturbance activities, such as activities related to project construction, within 1,000 feet of an active Swainson's hawk nest could induce nest abandonment and impact the species. The CDFW species of special concern, the American badger (*Taxidea taxus*), uses many habitat types, including grasslands, and their main requirement is that their habitat provide adequate amounts of food, typically in the form of ground squirrels. The project site may provide habitat to American badgers; however, the site's history of disking could have disturbed any existing mammal burrows and could have reduced the amount of food available to American badgers at the project site. Nonetheless, the project site could provide potential foraging and denning habitat for American badgers. Additionally, the project site may provide habitat for burrowing owls. Similar to the American badger, a primary habitat requirement for burrowing owls is small mammal burrows, which burrowing owls use for nesting, but in urban areas burrowing owls have been known to use artificial burrows including pipes, culverts and piles of concrete pieces. The nearest known occurrence of burrowing owls is 0.5-mile to the south. Although the site's small size and proximity to nearby residences and roadways reduce the quality of potential habitat provided by the project site, the potential remains for Swainson's hawks, American badgers and white-tailed kites to use the site for foraging, and for burrowing owls and American badgers to use the site for nesting or denning if appropriate burrows exist.

Another special-status species that could be present in the area is the federally endangered and state threatened San Joaquin kit fox. The CNDDB recorded one sighting in the five-mile radius of study and the *San Joaquin Kit Fox Modelled Habitat Distribution* map from the ECCC HCP/NCCP shows the project site as being Suitable Low Use Habitat.[5] Because of the potential suitability of the project site as habitat for the San Joaquin kit fox, the possibility exists that the species could occur on the project site.

[5] East Contra Costa County Conservancy. Prepared by Jones & Stokes. *App. D-02c San Joaquin Kit Fox Modelled Habitat Distribution – East Contra Costa County HCP/NCCP*. Prepared on February 15, 2006.

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.[6] The fee zones figure designates the proposed project site as urban, which indicates that the ECC HCP/NCCP does not anticipate the project site to be of high habitat value. Because the project site is designated as urban, the proposed project would be exempt from the payment of development fees. Despite the project's exemption of fees based on land use type, the project could result in impacts to individual special status species identified above as possibly occurring at the project site. Because some special status plants, Swainson's hawks, white-tailed kites, American badgers, San Joaquin kit foxes, and/or burrowing owls may exist on-site, site surveys would be required to determine whether any special-status plant or wildlife species are present on the project site, prior to initiating on-site ground disturbance and vegetation removal.

If the necessary preconstruction surveys are not carried out, the project could result in a ***potentially significant*** adverse effect, either directly or through habitat modifications, on species identified as a 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 impact to a *less than significant* level.

IV-1. Prior to any ground disturbance related to covered activities, a United States Fish and Wildlife Service (USFWS)/CDFW-approved biologist shall conduct a preconstruction survey of the project site. The survey shall establish the presence or absence of western burrowing owl and/or habitat features and evaluate use by owls in accordance with CDFW survey guidelines (California Department of Fish and Game 1995).

On the parcel where the activity is proposed, the biologist shall survey the proposed disturbance footprint and a 500-foot radius from the perimeter of the proposed footprint to identify burrows and owls. Adjacent parcels under different land ownership will not be surveyed. Surveys should take place near sunrise or sunset in accordance with CDFW guidelines. All burrows or burrowing owls shall be identified and mapped. Surveys shall

[6] 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 on June 2016.

take place no more than 30 days prior to construction. During the breeding season (February 1 – August 31), surveys will document whether burrowing owls are nesting in or directly adjacent to disturbance areas. During the nonbreeding season (September 1 – 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. A written summary of the survey results shall be submitted to the City of Oakley Planning Division.

If burrowing owls and/or suitable burrows are not discovered, then further mitigation is not necessary.

If burrowing owls are found during the breeding season (February 1 – 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 (described below). Construction may occur during the breeding season if a qualified biologist monitors the nest and determines that the birds have not begun egg-laying and incubation or that the juveniles from the occupied burrows have fledged. During the nonbreeding season (September 1 – January 31), the project proponent should avoid the owls and the burrows they are using, if possible. Avoidance shall include the establishment of a buffer zone.

During the breeding season, buffer zones of at least 250 feet in which no construction activities can occur shall be established around each occupied burrow (nest site). Buffer zones of 160 feet shall be established around each burrow being used during the nonbreeding season. The buffers shall be delineated by highly visible, temporary construction fencing. If occupied burrows for burrowing owls are not avoided, passive relocation will be implemented. Owls should be excluded from burrows in the immediate impact zone and within a 160-foot buffer zone by installing one-way doors in burrow entrances. These doors should be in place for 48 hours prior to excavation. The project area should be monitored daily for one week to confirm that the owl has abandoned the burrow. Whenever possible, burrows should be excavated using hand tools and refilled to prevent reoccupation (California Department of Fish and Game 1995). Plastic tubing or a similar structure should be inserted in the tunnels during excavation to maintain an escape route for any owls inside the burrow.

IV-2. Prior to any ground disturbance related to covered activities that occurs during the nesting season (March 15 – September 15), a qualified biologist will 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 will 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 Oakley Planning Division.

During the nesting season (March 15 – September 15), covered activities within 1,000 feet of occupied nests or nests under construction will 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 can 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 can apply to the City of Oakley Planning Division 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.

IV-3. A qualified biologist shall conduct pre-construction surveys for American badger in the project area two weeks prior to initiation of ground disturbance activities. If an American badger or active burrow, indicated by the presence of badger sign (i.e. suitable shape and burrow-size, scat) is found within the construction area during pre-construction surveys, the CDFG shall be consulted to obtain permission for animal relocation. A written summary of the survey results shall be submitted to the City of Oakley Planning Division.

If the qualified biologist determines that potential dens are inactive, the biologist shall excavate these dens by hand with a shovel to prevent badgers from re-using them during construction.

If the qualified biologist determines that potential dens may be active, the entrances of the dens shall be blocked with soil, sticks, and debris for three to five days to discourage use of these dens prior to project disturbance. The den entrances shall be blocked to an incrementally greater degree over the three to five day period. After the qualified biologist determines that badgers have stopped using active dens within the project boundary, the dens shall be hand-excavated with a shovel to prevent re-use during construction.

IV-4. Prior to any ground disturbance related to covered activities, a USFWS/CDFW-approved biologist will conduct a preconstruction San Joaquin Kit Fox survey over the entire project site. The surveys will establish the presence or absence of San Joaquin kit foxes and/or suitable dens and evaluate use by kit foxes in accordance with USFWS survey guidelines (U.S. Fish and Wildlife Service 1999). A written summary of the survey results shall be submitted to the City of Oakley Planning Division.

Preconstruction surveys will be conducted within 30 days of ground disturbance. On the parcel where the activity is proposed, the biologist will survey the proposed disturbance footprint and a 250-foot radius from the perimeter of the proposed footprint to identify San Joaquin kit foxes and/or suitable dens. Adjacent parcels under different land ownership will not be surveyed. The status of all dens will be determined and mapped. Written results of preconstruction surveys will be submitted to USFWS within 5 working days after survey completion and before the start of ground disturbance. Concurrence is not required prior to initiation of covered activities.

If San Joaquin kit foxes and/or suitable dens are identified in the survey area, the measures described below will be implemented.

- *If a San Joaquin kit fox den is discovered in the proposed development footprint, the den will be monitored for 3 days by a USFWS/CDFW– approved biologist using a tracking medium or an infrared beam camera to determine if the den is currently being used.*
- *Unoccupied dens should be destroyed immediately to prevent subsequent use.*
- *If a natal or pupping den is found, USFWS and CDFW will be notified immediately. The den will not be destroyed until the pups and adults have vacated and then only after further consultation with USFWS and CDFW.*
- *If kit fox activity is observed at the den during the initial monitoring period, the den will be monitored for an additional 5 consecutive days from the time of the first observation to allow any resident animals to move to another den while den use is actively discouraged. For dens other than natal or pupping dens, use of the den can be discouraged by partially plugging the entrance with soil such that any resident animal can easily escape. Once the den is determined to be unoccupied it may be excavated under the direction of the biologist. Alternatively, if the animal is still present after 5 or more consecutive days of plugging and monitoring, the den may have to be excavated when, in the judgment of a biologist, it is temporarily vacant (i.e., during the animal's normal foraging activities).*

If dens are identified in the survey area outside the proposed disturbance footprint, exclusion zones around each den entrance or cluster of entrances will be demarcated. The configuration of exclusion zones should be circular, with a radius measured outward from the den entrance(s). Covered activities shall not occur within the exclusion zones. Exclusion zone radii for potential dens will be at least 50 feet and will be demarcated with four to five flagged stakes. Exclusion zone radii for known dens will be at least 100 feet and will be demarcated with staking and flagging that encircles each den or cluster of dens but does not prevent access to the den by kit fox.

IV-5. Prior to any ground disturbing activities, an approved biologist shall conduct a preconstruction survey using approved CDFW/USFWS methods during the appropriate season to identify any covered and no-take plant species. If covered or no-take plant species are not found, a survey report shall be submitted to the City of Oakley and further mitigation measures would not be necessary.

If covered or no-take plants are found, the location, extent, and condition of all occurrences shall be documented in a survey report submitted to the City of Oakley, and the project proponents shall notify the City of Oakley of their schedule for removing the covered plants. Survey reports shall include CNDDB California Native Species Field Survey Forms for all covered or no-take plants encountered on the site, and copies of these forms should be sent to the CNDDB. The City of Oakley shall determine if salvage measures are available and can be implemented. If salvage s possible populations should be transplanted such that they constitute separate populations and do not become part of an existing population of the species, as measured by the potential for genetic exchange among individuals through pollen or propagule (e.g., seed, fruit) dispersal. Transplanting or seeding "receptor" sites (i.e., habitat suitable for establishing a new population) should be carefully selected on the basis of physical, biological and logistical considerations as outlined in the ECCC HCP/NCP.

b,c. Riparian habitats are described as the land and vegetation that is situated along the bank of a stream or river. Wetlands are areas where water covers the soil, or is present either at or near the surface of the soil all year or for varying periods of time during the year. Wetlands usually must possess hydrophytic vegetation (i.e., plants adapted to inundated or saturated conditions), wetland hydrology (e.g., topographic low areas, exposed water tables, stream channels), and hydric soils (i.e., soils that are periodically or permanently saturated, inundated or flooded). Vernal pools are seasonal depressional wetlands that are covered by shallow water for variable periods from winter to spring, but may be completely dry for most of the summer and fall. Vernal pools range in size from

small puddles to shallow lakes and are usually found in a gently sloping plain of grassland.

The project site has been disturbed by disking, is well drained by on-site soils, and is relatively level. Ruderal vegetation currently dominates the project site, and drainage features, hydrophytic vegetation, or other wetland features are not known to occur on the project site. Additionally, the USWFS National Wetlands Inventory Wetlands Mapper does not identify any wetlands on the project site. Therefore, impacts to wetlands and riparian habitat would be considered ***less than significant*****.**

d. The project site is surrounded by urban and developed land. Residential developments exist to the north and east of the project site, while the SP Railway tracks, and SR 4 create a north-south barrier to the west of the site. As a result, the project site does not support a wildlife corridor and does not contain any watercourses that would support migratory fish. Therefore, the development of the project site would result in a ***less-than-significant*** impact.

e. The site is a vacant, graded parcel. Only one small tree exists on the perimeter of the site near Neroly Road. Before removal of the existing site tree the applicant must comply with the Section 9.1.1112, Heritage and Protected Trees, of the City of Oakley Municipal Code, which requires an application for a tree removal permit to be submitted to the Community Development Department prior to the removal of the tree. Subsequent to the submittal of the tree removal application the applicant would be required to comply with any findings or conditions imposed by the Community Development Department. By complying with the Heritage and Protected Trees Section of the City of Oakley Municipal Code, the proposed project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance and a ***less-than-significant*** impact would occur.

f. The ECCC HCP/NCCP was approved in August 2007 and the City of Oakley approved the implementing ordinance on November 13, 2007. The project is located within the City; therefore, the project is included in the ECCC HCP/NCCP. Mitigation Measures IV-1 through IV-5 would ensure that the proposed project has no direct impact on special status species. As discussed earlier in this document, the project site is concurrently classified as grassland in the *Landcover in the Inventory Area* figure of the ECCC HCP/NCCP and urban in the *East Contra Costa County HCP/NCCP Development Fee Zones* figure (see the discussion for question a of this section for a further analysis of the two figures). Because the proposed project is designated as urban in the *East Contra Costa County HCP/NCCP Development Fee Zones* figure, the project would not be subject to any development fees. Additionally, the surveys required of the proposed project by Mitigation Measures IV-1 through IV-5 would meet the survey requirements of areas designated as urban in the *East Contra Costa County HCP/NCCP Development Fee Zones* figure while also reducing the

possibility of special-status species impacts that could result from development in an area classified as grassland in the *Landcover in the Inventory Area* figure of the ECCC HCP/NCCP. Therefore, the proposed project would not be in conflict with the provisions of an adopted Habitat Conservation Plan for the area and would result in a ***less-than-significant*** impact.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
V. CULTURAL RESOURCES. *Would the project:*					
a.	Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☐	☐	✖	☐
b.	Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5?	☐	✖	☐	☐
c.	Directly or indirectly destroy a unique paleontological resource on site or unique geologic features?	☐	✖	☐	☐
d.	Disturb any human remains, including those interred outside of formal cemeteries.	☐	✖	☐	☐
e.	Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074.	☐	☐	✖	☐

Discussion

a. The California Register of Historical Resources identifies a historical resource as the following:

- Associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;
- Associated with the lives of persons important to local, California, or national history;
- Embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of a master or possesses high artistic values; or
- Yielded, or may be likely to yield, information important to the prehistory or history of the local area, California, or the nation.

The Oakley GP EIR on page 3-149 states that "while there are no officially designated historic structures in Oakley, there are numerous buildings, primarily in the old town area, eligible for such designation or listing […] Oakley's historic resources are generally in need of official recognition." Structures do not currently exist at the project site that would meet the California Register of Historical Resources definition and the site has not been determined to be a

historic resource by the Oakley General Plan. Therefore, historical resources would not be affected by the project and a ***less-than-significant*** impact would occur.

b-d. According to the Oakley General Plan EIR (p. 3-148), few archeological or paleontological finds have occurred in the City of Oakley. However, the City's General Plan EIR states that given the rich history of the Planning Area and region, the City will continue to require site evaluation prior to development of undeveloped areas, as well as required procedures if artifacts are unearthed during construction. The project site does not currently contain any structures and the site is heavily disturbed by routine disking; therefore, the probability of historical or cultural resources being present on the site is low. However, the possibility remains that ground disturbing activities could uncover previously unknown buried archaeological or paleontological materials, or human remains, resulting in a ***potentially significant*** impact.

Mitigation Measure(s)

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

V-1. *If buried historic and/or cultural resources are encountered during site grading or other site work, all such work shall be halted immediately within 100 feet of the discovery and the developer shall immediately notify the Planning Division of the discovery. In such case, the developer shall be required, at their own expense, to retain the services of a qualified archaeologist for the purpose of recording, protecting, or curating the discovery, as appropriate. The archaeologist shall be required to submit to the City of Oakley Planning Division for review and approval a report of the findings and method of curation or protection of the resources. Further grading or site work within the area of discovery would not be allowed until the preceding work has occurred.*

V-2. *Pursuant to State Health and Safety Code §7050.5 (c) State Public Resources Code §5097.98, if human bone or bone of unknown origin is found during construction, all work shall stop within 100 feet of the find and the Contra Costa County Coroner shall be contacted immediately. If the remains are determined to be Native American, the Coroner shall notify the Native American Heritage Commission, who shall notify the person believed to be the most likely descendant. The most likely descendant shall work with the contractor to develop a program for re-internment of the human remains and any associated artifacts. Additional work is not to take place within 100 feet of the find until the identified appropriate actions have been implemented.*

e. Tribal cultural resources are generally defined by Public Resources Code 21074 as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe. Because the proposed project includes a request for a General Plan Amendment, in compliance with Senate Bill (SB) 18, the City of Oakley initiated consultation with the pertinent Native American Tribes. The City received a response from a representative of the Muwekma Ohlone Indian Tribe of the San Francisco Bay Area, and consultation pursuant to SB 18 is on-going. Additionally, the City of Oakley distributed project notification letters, in compliance with Assembly Bill (AB) 52, to the Torres Martinez Desert Cahuilla Indians, and the Ione Band of Miwok Indians. At the time of publication of this document the City has not received requests for further consultation under AB 52 from any of the contacted tribes. Concurrently, a records search of the Sacred Lands File was performed by the Native American Heritage Commission. The Sacred Lands File search returned negative results for known cultural resources on the project site. The project site does not contain any existing structures and past disturbance of the site makes the persistence of surficial tribal resources unlikely. Although past disturbance of the project site makes the discovery of surficial resources unlikely, application of Mitigation Measures V-1 and V-2 would reduce the project's impacts to possible unknown cultural, tribal or historical resources to less than significant levels. Given the low likelihood of the presence of tribal resources as described in the City's General Plan EIR and the required Mitigation Measures V-I and V-2 which require construction to halt if any potential resources are found, as well as the City's compliance with AB 52 and SB 18, the project would result in a ***less-than-significant*** impact to tribal cultural resources.

Issues			Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
VI. GEOLOGY AND SOILS. *Would the project:*						
a.	Expose people or structures to 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?	☐	✖	☐	☐
	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?		☐	☐	✖	☐
e.	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?		☐	☐	☐	✖

Discussion

a,c. The site is located in an area of moderate to high seismicity. Known active faults are not mapped across the property and the site is not located within an Alquist-Priolo Earthquake Fault Zone; however, the Oakley 2020 General Plan Background Report states that the San Francisco Bay area is an area of high seismic risk. As shown in Figure 8-1 of the City's General Plan, *Faults and Seismic Stability*, three faults are in the Oakley area, with the Brentwood Fault directly underlying the City, and the Davis and Antioch Faults to the west of the City. All three faults are inferred to be active.

Potential seismic hazards resulting from a nearby moderate to major earthquake can generally be classified as primary and secondary. The primary effect is ground rupture, also called surface faulting. The common secondary seismic hazards include ground rupture, ground shaking, liquefaction, and ground lurching.

Ground Rupture

Figure 8-1 of the City's General Plan shows fault traces for all known and inferred faults in the area. The proposed project is not underlain by any faults known to the City and as a result, ground rupture is unlikely at the project site.

Ground Shaking

An earthquake of moderate to high magnitude generated within the region could cause considerable ground shaking at the site, similar to that which has occurred in the past. To mitigate the shaking effects, structures should be designed using sound engineering judgment and the 2013 California Building Code (CBC) requirements, as a minimum. Seismic design provisions of current building codes generally prescribe minimum lateral forces, applied statically to the structure, combined with the gravity forces. The code-prescribed lateral forces are generally considered to be substantially smaller than the comparable forces that would be associated with a major earthquake. Therefore, structures should be able to: (1) resist minor earthquakes without damage, (2) resist moderate earthquakes without structural damage but with some nonstructural damage, and (3) resist major earthquakes without collapse but with some structural as well as nonstructural damage. Conformance to the current building code recommendations does not constitute any kind of guarantee that significant structural damage would not occur in the event of a maximum magnitude earthquake; however, a well-designed and well-constructed structure can be reasonably expected to resist collapse thus reducing loss of life in a major earthquake.

Landslides

The project area is relatively flat; therefore, landslides do not represent a likely hazard.

Ground Lurching

Ground lurching is a result of the rolling motion imparted to the ground surface during energy released by an earthquake. Such rolling motion can cause ground cracks to form in weaker soils. The potential for the formation of these cracks is considered greater at contacts between deep alluvium and bedrock. Figure 8-1 of the City's General Plan indicates the project site is on the border of areas designated as being comprised of Pliocene bedrock or younger alluvium.

Therefore, the proposed project could be in an area where alluvium contacts bedrock and thus be vulnerable to potential ground lurching. Foundation and pavement must be designed to reduce the potential for adverse impacts from possible lurch cracking.

Liquefaction

Soil liquefaction results from loss of strength during cyclic loading, such as imposed by earthquakes. Soils most susceptible to liquefaction are clean, loose, saturated, uniformly graded and fine-grained sands. Empirical evidence indicates that loose to medium-dense gravels, silty sands, and low- to moderate-plasticity silts and clays may be susceptible to liquefaction. In addition, sensitive high-plasticity soils may be susceptible to significant strength loss (cyclic softening) as a result of significant cyclic loading. As shown in Figure 8-2, of the City of Oakley General Plan 2020, *Estimated Liquefaction Potential*, most of the City's planning area is within an area of generally high liquefaction potential. Additionally, the United States Department of Agriculture, Natural Resource Conservation Service's Web Soil Survey identifies 60 percent of the project site as being composed of the Capay clay soil series, which is characterized as containing liquefaction sensitive clays.[7] The City of Oakley General Plan (p. 8-3) Policy 8.1.9 requires all public and private development to conduct a geologic engineering study, which must define and delineate potential hazardous geologic and/or soils conditions, recommend means of mitigating any adverse conditions, and provide implementation of the mitigation measures. Because the proposed project would be sited in an area of generally high liquefaction potential, the project would be subject to Policy 8.1.9, and would require a design-level geologic engineering study. Without completion of a design-level geotechnical report and implementation of relevant recommendations therein, the proposed project could expose people or structures to potential risk of loss, injury, or death by the project's location on an unstable geologic or soil unit.

Conclusion

The project site is not within an Alquist-Priolo Special Studies Zone; however, the City of Oakley General Plan, General Plan Background Report, and General Plan EIR indicate that the Oakley area is located in a seismically active zone. Development of the proposed project in this seismically active zone could expose people or structures to substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking, ground lurching, liquefaction, or the location of the project on an unstable geologic unit or soil. Therefore, a ***potentially significant*** impact could result.

7 United States Department of Agriculture, Natural Resources Conservation Service. *Web Soil Survey*. Accessible at http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. Accessed in June 2016.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impacts related to liquefiable soils, and ground lurching to a *less-than-significant* level.

VI-1. Prior to issuance of a grading permit, the applicant/developer shall incorporate the recommendations of a design-level geotechnical report into the Improvement Plans for approval by the City Engineer. The following measures include, but are not limited to, the options available to reduce site liquefaction potential and/or adverse effects to structures located above potentially liquefiable soils. Once final grading plans are designed, the project's geotechnical engineers shall determine the appropriate methods of mitigating the effects of liquefaction, such as:

- *Remove and replace potentially liquefiable soils;*
- *Strengthen foundations (e.g., post-tensioned slab, reinforced mat or grid foundation, or other similar system) to resist excessive differential settlement associated with seismically-induced liquefaction;*
- *Support the proposed structures on an engineered fill pad (minimum of 5 feet thick) in order to reduce differential settlement resulting from seismically-induced liquefaction and post-seismic pore pressure dissipation; and/or*
- *Densify potentially liquefiable soils with an in situ ground improvement technique such as deep dynamic compaction, vibro-compaction, vibro-replacement, compaction grouting, or other similar methods.*

VI-2. All grading and foundation plans for the development shall be designed by a Civil and Structural Engineer and reviewed and approved by the Director of Public Works/City Engineer, Chief Building Official, and a qualified Geotechnical Engineer prior to issuance of grading and building permits to ensure that all geotechnical recommendations specified in the geotechnical report required by mitigation measure VI-1 are properly incorporated and utilized in the project design.

b. The City of Oakley General Plan Background Report (Section 9, p. 9-3) indicates that the project site is characterized by soils grouped within the lowland soil association. According to the General Plan EIR, such soils are described as slowly to very slowly permeable, highly expansive and corrosive with slight erosion hazard (3-160). Because the soils on the site possess little erosion hazard, the project site is not likely to suffer substantial soil erosion or loss of topsoil. However, any disturbance of the soil, such as surface grading, relocates topsoil and breaks the soil into easily transported particles, rendering earth surfaces susceptible to erosion from wind and water. As part of standard City requirements, preparation of an Erosion Control Plan and Stormwater Pollution

Prevention Plan (SWPPP) prior to construction activities and implementation of BMPs during construction is required. The erosion control measures required for implementation on the proposed project by both the SWPPP and the Erosion Control Plan would ensure that the proposed project would not result in substantial soil erosion or the loss of topsoil. Therefore, impacts from soil erosion resulting from grading of the project area would be considered ***less than significant***.

d. The project site is within a region that is identified in the Oakley General Plan EIR as possessing soils that are very slowly permeable and highly expansive. Highly expansive soils are prone to shrink/swell activity, which could have adverse affects on structures constructed on such soils. Mitigation Measure VI-2 requires compliance with recommendations in a geotechnical report which would ensure that the foundations and pavements are designed in order to reduce the impact of the proposed project from expansive soils to a ***less-than-significant*** level.

e. The proposed project will not involve the use of septic tanks or alternative wastewater disposal systems; therefore, ***no impact*** would occur.

Issues		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
VII. GREENHOUSE GAS EMISSIONS. *Would the project:*					
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?	☐	☐	✖	☐

Discussion

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. It should be noted that the project currently includes the installation of photovoltaic solar panels to generate 700 kWh. The solar panels would produce energy with a low carbon intensity and reduce the proposed project's impact on GHG emissions related to energy use. Consequently, 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 the BAAQMD. The BAAQMD threshold of significance for project-level operational GHG emissions is 1,100 $MTCO_2e$/yr. 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 thresholds of significance are used for the analysis within this IS/MND, as the thresholds of significance are supported by substantial evidence.[8]

The proposed project's GHG emissions were quantified using CalEEMod using the same assumptions as presented in the Air Quality section of this IS/MND, and compared to the 1,100 $MTCO_2e$/yr threshold of significance. According to the CalEEMod results, the proposed project would result in operational GHG emissions of 506.65 $MTCO_2e$/yr, which is well below the 1,100 $MTCO_2e$/yr threshold of significance. Construction GHG emissions are a one-time release and are, therefore, not typically expected to generate a significant contribution to global climate change. Neither the City nor BAAQMD has an adopted a threshold of significance for construction-related GHG emissions. However, even if the proposed project's total construction GHG emissions of 396.17 $MTCO_2e$/yr are included with the annual operational GHG emissions, the resultant total GHG emissions of 902.82 $MTCO_2e$/yr would still be well below the 1,100 $MTCO_2e$/yr threshold of significance. Therefore, the proposed project would not be expected to result in a significant impact related to GHG emissions.

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***.

[8] A further discussion of the BAAQMD's thresholds is provided in questions a-c of the Air Quality section in this IS/MND

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
VIII. HAZARDS AND HAZARDOUS MATERIALS.					
Would the project:					
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 for people residing or working in the project area?	☐	☐	☐	✖
f.	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	✖
g.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	✖
h.	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?	☐	☐	✖	☐

Discussion

a. The proposed project involves the construction of a self-storage facility, office, and manager's residence. Self-storage facilities are not typically associated with the routine transport, use, or disposal of hazardous materials. However, construction activities would involve the use of heavy equipment, which would contain fuels, oils, and various other products such as concrete, paints, and adhesives. However, the project contractor would be required to comply with all California Health and Safety Codes and local ordinances regulating the handling, storage, and transportation of hazardous and toxic materials, as overseen by the California EPA and DTSC. Should an accidental release of hazardous materials occur during construction, the City (or City crews) and/or contractor, is required to notify the East Contra Costa Fire Protection District (ECCFPD), who would then monitor the conditions and recommend appropriate remediation measures.

Because project operations would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, impacts would be considered ***less than significant***.

b. The proposed project site contains a PG&E easement area for underground gas pipelines. The proposed project would not involve the construction of permanent structures in the easement area; however, ground disturbance associated with other construction activities has the potential to upset or conflict with the PG&E gas lines. Work being done in Underground Service Areas is required to contact the service provider prior to beginning work and consult with the service provider. However, without consultation with the underground service provider, the proposed project has the potential to create a hazard through the upset of PG&E gas lines which would release hazardous substances to the environment. Therefore, the proposed project could result in a ***potentially significant*** impact.

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

VIII-1. *Prior to approval of Grading Plans, the project applicant shall coordinate with PG&E to determine the accurate depths and alignment of the pipelines by field checking and potholing the pipeline. Arrangements to potholing of the pipelines shall be made at least 48 hours in advance. The project applicant shall be responsible for providing a backhoe and operator, as well as a surveyor if needed. All construction plans that involve right-of-way encroachments shall be submitted to PG&E to allow for review.*

After determining the accurate depths and alignments of the pipelines, the results shall be noted on all project construction plans, and the project applicant shall further coordinate with PG&E

regarding all work that could affect the pipelines in order to ensure compliance with applicable development restrictions and regulations, which would include, but would not be limited to, the following:

- *Maintain a minimum of 12 inches of clearance between the pipelines and other cross-lines that intersect at a 90-degree angle, or a minimum of 24 inches of clearance for intersection angles less than 90-degrees;*
- *Maintain a minimum of 24 inches of undisturbed clearance between the top of pipe and bottom of the sub grade for paving and grass or shallow rooted plants within the pipeline easements;*
- *Prohibit deep-rooted trees and structures within pipeline easements;*
- *All excavations within 24-inches of the pipelines shall be accomplished using hand tools only;*
- *Restrict use of heavy vibratory equipment over pipelines; and*
- *Notify Underground Service Alert (USA) at 800-227-2600 at least 48 hours prior to any excavation work.*

c. The proposed project involves the construction of a self-storage facility, office, and manager's residence. Self-storage facilities are not typically associated with the emission, or use of hazardous or acutely hazardous materials. The closest school to the project site is over a mile away in the City of Antioch. Therefore, the proposed project would not emit or handle hazardous or acutely hazardous material within one quarter mile of a school and ***no impact*** would occur.

d. The proposed project is not located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5,[9] and would not create a significant hazard to the public or the environment. Therefore, ***no impact*** would occur.

e,f. The proposed project is not located in the vicinity of a private airstrip or within an airport land use plan. The City of Oakley 2020 General Plan DEIR identifies the closest airports as Buchanan Field and Byron Airport, 20 miles and 14 miles away, respectively. Therefore, implementation of the proposed project would not place residents or workers within two-miles of any private airstrips or within an airport land use plan, and the proposed project would not create a safety hazard, thus resulting in ***no impact***.

[9] California Department of Toxic Substances Control. EnviroStor. Available at: http://www.envirostor.dtsc.ca.gov. Accessed June 2016.

g. The proposed project does not include any modifications to the surrounding roadways or circulation networks. Therefore, the project would not construct barriers that would impede the implementation of an emergency response plan. As a result, the proposed project would not impair or physically interfere with an adopted emergency response plan and ***no impact*** would occur.

h. The site is located in an urban area designated as having a moderate fire hazard severity by the California Department of Forestry and Fire Protection. Dense vegetation does not occur and the project site is bordered on two sides by existing urban development. Fire protection for the area is provided by the East Contra Costa County Fire Protection District (ECCCFPD), and fire service would continue with the implementation of the proposed project. Therefore, a ***less-than-significant*** impact would result in regards to the exposure of people or structures to risk of loss, injury or damage due to wildfire.

Issues	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
IX. HYDROLOGY AND WATER QUALITY. *Would the project:*				
a. Violate any water quality standards or waste discharge requirements?	☐	☐	✖	☐
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	✖	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	✖	☐
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	✖	☐
e. 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?	☐	☐	✖	☐
f. Otherwise substantially degrade water quality?	☐	☐	✖	☐
g. Place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	✖	☐
h. Place within a 100-year floodplain structures which would impede or redirect flood flows?	☐	☐	✖	☐
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.	☐	☐	✖	☐
j. Inundation by seiche, tsunami, or mudflow?	☐	☐	✖	☐

Discussion

a-f The City's National Pollutant Discharge Elimination System (NPDES) permit requires that any projects that would create or replace 10,000 square feet or more of impervious surfaces must submit a Stormwater Control Plan (SWCP) with their development permit. The City of Oakley's Municipal Code Section 6.11, Stormwater Management and Discharge Control, requires that the SWCP include appropriate design measures to treat runoff from all proposed impervious surfaces. The *Stormwater Control Plan for Acorn Self Storage Facility-Oakley* (SWCP) prepared for the project by CMI Engineering & Construction in March 2016, conforms with the most recent Contra Costa Clean Water Program Stormwater C.3 Guidebook and meets the City of Oakley Municipal Code requirements. The SWCP indicates that stormwater from the site is not known to currently run-off from the site and enter City infrastructure or run-off to any nearby waterways regularly. Instead, the SWCP concluded stormwater currently infiltrates on-site soils. The project soils are moderate to excessively drained and water that infiltrates the topsoil most likely moves off-site through subsurface flow.

The proposed project would include the addition of impervious surfaces over a total of 157,551 sf. The proposed impervious surfaces would impede stormwater infiltration over that area, which could reduce the groundwater recharge rate over the affected area, and could potentially lead to increased run-off to City infrastructure or to off-site waterways. However, the project area is relatively small, and increased run-off would not be expected to have a significant impact on City infrastructure, off-site waterways or ground water recharge by itself. Nevertheless, the proposed project would include a bioretention basin on the northwest end of the property, which would be sized to exceed the minimum volume requirement necessary to adequately treat all runoff from the proposed impervious surfaces. Runoff would gravity flow to the bioretention area where the stormwater would be able to infiltrate the soil in a similar manner to what currently occurs on the project site. Any excess runoff would be connected through a proposed storm drain pipe to an existing storm drain in Neroly Road. Because the proposed bioretention facility would be designed with adequate capacity to capture and treat runoff from proposed impervious surfaces, the proposed project would not create any new runoff that would leave the site. In addition to reducing runoff and allowing for groundwater recharge, the bioretention areas would also treat incoming runoff by filtering stormwater through permeable soil layers. The process of stormwater moving through the soil layers would remove pollutants from the stormwater before further subsurface infiltration or discharge to City infrastructure. As a result, the proposed project would not lead to the degradation of water quality or the violation of water quality standards due to operational stormwater runoff.

During the early stages of construction activities, topsoil would be exposed due to grading of the site. After grading and prior to overlaying the ground surface

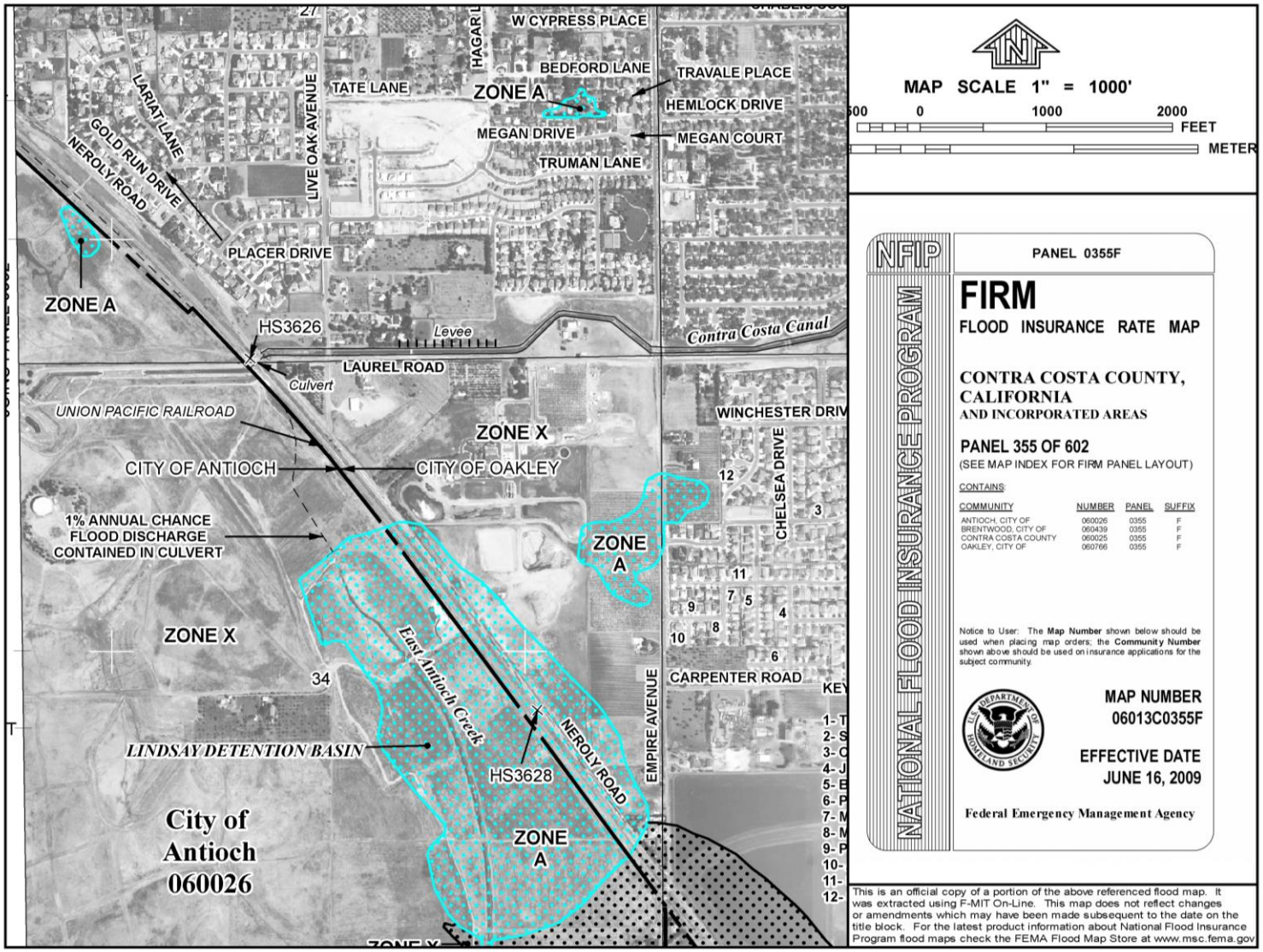
with impervious surfaces and structures, the potential exists for wind and water erosion to discharge sediment and/or urban pollutants into stormwater runoff, which would adversely affect water quality. However, the proposed project includes a construction Erosion Control Plan, which includes erosion prevention instructions for construction activities. The Erosion Control Plan also includes regulations for vehicle entrance and exit points as well as silt fences that would be used to prevent any sediment contained in runoff from exiting the site. As such the proposed project would not result in a construction related degradation of water quality.

Therefore, the project would not substantially deplete groundwater supplies, interfere with the recharge of groundwater, violate water quality standards, substantially degrade water quality, directly alter or lead to the alteration of existing drainage features leading to erosion, flooding or siltation, nor would the project contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems, and as a result the project would have a ***less-than-significant*** impact.

g-i. Based on the FEMA Flood Insurance Rate Map (FIRM) (Map Number ID 06013C0355F), the project site is within Zone X, which is described by FEMA as an area determined to be outside the 0.2 percent annual chance floodplain (see Figure 3). Thus, development of the proposed project would not place structures within a 100-year floodplain or expose people or structures to a risk of loss, injury, or death involving flooding. Additionally, Figure 8-6 of the City of Oakley General Plan 2020 outlines all areas that could be flooded due to dam failures. The proposed project site is not identified as being within an area of possible inundation as a result of a failure of a levee or dam. Accordingly, restrictions on development or special requirements associated with flooding are not required for the project. Therefore, the proposed project would result in a ***less-than-significant*** impact related to flooding.

j. Tsunamis are defined as sea waves created by undersea fault movement. A tsunami poses little danger away from shorelines; however, when a tsunami reaches the shoreline, a high swell of water breaks and washes inland with great force. Waves may reach 50 feet in height on unprotected coasts. Historic records of the Bay Area used by one study indicate that nineteen tsunamis were recorded in San Francisco Bay during the period of 1868-1968. Maximum wave height recorded at the Golden Gate tide gauge (where wave heights peak) was 7.4 feet. The available data indicate a standard decrease of original wave height from the Golden Gate to about half original wave height on the shoreline near Richmond, and to nil at the head of the Carquinez Strait. As the project site is approximately 20 miles east of the Carquinez straight and over two miles away from the nearest body of water, the project site is not exposed to flooding risks from tsunamis and adverse impacts would not result.

Figure 3
FEMA Flood Insurance Rate Map



A seiche is a long-wavelength, large-scale wave action set up in a closed body of water such as a lake or reservoir, whose destructive capacity is not as great as that of tsunamis. Seiches are known to have occurred during earthquakes, but none have been recorded in the Bay Area. In addition, the project is not located near a closed body of water. Therefore, risks from seiches and adverse impacts would not result. Mudflows typically occur in mountainous or hilly terrain. Given the existing and proposed flat topography of the project site, risks from mudflows and adverse impacts would not result. Therefore, potential impacts resulting from tsunamis, seiches, or mudslides would be ***less than significant***.

Issues	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
X. LAND USE AND PLANNING. *Would the project:*				
a. Physically divide an established community?	☐	☐	✖	☐
b. Conflict with any applicable land use plans, policies, or regulations of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating on environmental effect?	☐	☐	✖	☐
c. Conflict with any applicable habitat conservation plan or natural communities conservation plan?	☐	☐	✖	☐

Discussion

a. The proposed project involves the construction of a self-storage facility, office and manager's residence. The project is located to the west of Neroly Road, near the intersections of Omega Lane and Placer Drive with Neroly Road. The project does not include any improvements to Neroly Road that would alter circulation or create a barrier between parts of the community. The project site is currently vacant, with SP Railway tracks to the west, vacant land beyond the tracks and SR 4 further to the west. Therefore, the proposed project would not be located between communities in such a way as to create a barrier or divide established communities. As a result, the proposed project would have a ***less-than-significant*** impact.

b. The proposed project includes a request for a General Plan Amendment (GPA 04-16) to amend the land use designation from Single-Family Low Density (SL) to Commercial (CO), as well as Rezone (RZ 06-16) from unzoned to Planned Development (P-1). The project site is a vacant strip of land west of Neroly Road and east of the SP Railway tracks. While the proposed project is requesting a General Plan Land Use amendment the project is consistent with Goals within the General Plan Economic Development Element which encourages the expansion of Oakley's economic base, in Goal 5.1, and seeks to establish a diverse and balanced economy in Oakley, in Goal 5.2. The proposed project adds a new business to the Oakley area, which would provide an employment resource for the area and may help to expand the City of Oakley's economy. Should the City Council amend the land use designation to Commercial, the proposed project would not conflict with any applicable land use plans, policies, or regulations and would result in a ***less-than-significant*** impact.

c. The ECC HCP/NCCP was approved in August 2007 and the City of Oakley approved the implementing ordinance on November 13, 2007. The project is within the City and, therefore, is included in the HCP. In compliance with the implementing ordinance, the proposed project would be required to comply with the HCP conservation strategies. Mitigation Measures IV-1 through IV-5 would ensure that the proposed project fulfills all requirements of the ECCC HCP/NCCP. Therefore, the proposed project would not conflict with the adopted HCP and a ***less-than-significant*** impact would occur.

Issues	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XI. MINERAL RESOURCES. *Would the project:*				
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. The City of Oakley General Plan Background Report states that the only mineral resource currently mined in the City of Oakley is sand. The project site is currently vacant land between Neroly Road to the east and Southern Pacific Railway tracks to the west. Currently mining of sand does not occur at the project site and much of the adjacent land is developed for residential uses, which would be incompatible with mining activities. The proposed project would not result in the loss of availability of a known mineral resource or a locally important mineral recovery site; therefore, the proposed project would have ***no impact*** to mineral resources.

Issues	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XII. NOISE. *Would the project result in:*				
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	✖	☐
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	✖	☐
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	✖	☐
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	✖	☐
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 expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	✖
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	✖

Discussion

a,c. The City of Oakley General Plan Policy 9.1.5 states that noise levels resulting from transportation noise sources shall be maintained at or below 65 dBA Ldn at residential outdoor use areas. Such residential areas exist opposite the proposed project site, across Neroly Road, as well as to the north of the project site. Table 9-6 of the General Plan indicates that predicted ambient noise levels at General Plan buildout along Neroly Road in the vicinity of the proposed project range from 60 to 59.4 dB. Therefore, under current buildout scenarios, the sensitive receptors near the proposed project site would not be subject to noise in excess of City of Oakley standards. The predicted ambient noise level is based off of the projected land uses and the projected traffic levels in the area. The proposed project would involve the development of the project site for a self-storage facility, rather than the single-family residences assumed in the General Plan buildout

scenarios. However, as discussed in the Transportation/Traffic section of this IS/MND the proposed project is not anticipated to generate excess traffic or significantly impact projected traffic levels for the area. Additionally, the operation of self-storage facilities is not typically associated with large levels of noise production, and the operational noise produced by the self-storage facility would not be expected to significantly impact the nearby neighborhoods by generating noise in excess of the 65 dB Ldn standard. Notwithstanding the difference in land use, the proposed self-storage facility would not be anticipated to significantly change the buildout noise level range of the project area. Therefore, the proposed project is not expected to expose sensitive receptors to noise levels in excess of local standards or create an increase in ambient noise levels, and as a result the proposed project would result in a ***less-than-significant*** impact

b. Groundborne vibration would be generated during construction of the proposed project. Residential land uses to the north and west of the project site would be sensitive to excessive vibrations caused by construction. For structural damage, the California Department of Transportation (Caltrans) uses a vibration limit of 0.5 inches/second, peak particle velocity (in/sec, PPV), for buildings structurally sound and designed to modern engineering standards; 0.2 in/sec PPV for buildings that are found to be structurally sound but where structural damage is a major concern; and a conservative limit of 0.08 in/sec PPV for historic buildings or buildings that are documented to be structurally weakened. All surrounding structures are assumed to be structurally sound, but damage would be a concern so the 0.2 in/sec PPV will be used as a threshold of significance for structural damage. The threshold of 0.2 in/sec PPV is also used by Caltrans as the threshold for human annoyance caused by vibration. Therefore, activities creating vibrations exceeding 0.2 in/sec PPV would impact sensitive receptors in nearby residences.[10] Table 4 presents typical vibration levels that could be expected from construction equipment at a distance of 25 feet.

Table 4
Vibration Source Levels for Construction Equipment

Equipment	PPV at 25 ft (in/sec)
Vibratory Roller	0.210
Large Bulldozer	0.089
Caisson drilling	0.089
Loaded trucks	0.076
Jackhammer	0.035
Small bulldozer	0.003

Source: Caltrans, Transportation and Construction Vibration: Guidance Manual. September 2013.

Project construction activities, such as drilling, the use of jackhammers, and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.), may generate groundborne vibration in the immediate vicinity.

[10] Caltrans. *Transportation and Construction Vibration Guidance Manual*. September 2013.

As shown in Table 4, jackhammers typically generate vibration levels of 0.035 in/sec PPV, while drilling typically generates vibration levels of 0.09 in/sec PPV, and the strongest source of vibrations, vibratory rollers, generates vibration levels of 0.21 in/sec PPV all at a distance of 25 feet. Vibration levels would vary depending on soil conditions, construction methods, and equipment used. It is important to note that groundborne vibrations dissipate with distance. The closest residential structures to the project site are at least 75 feet away. Therefore, the PPV experienced at any of the residences would be reduced from the PPV's reported in Table 4. The Caltrans *Transportation and Construction Vibration Guidance Manual* provides a formula for estimating vibration dissipation with distance.[11] Calculations were completed to determine the maximum vibration caused by the construction activities using the Caltrans formula. Because the Vibratory Roller would be the most intense possible source of vibrations, the reference PPV of 0.210 in/sec was used for the calculations. At a distance of 75 from the project site any sensitive receptors would receive 0.063 in/sec PPV from the use of a Vibratory Roller, which is well below the 0.2 in/sec PPV significance threshold used for this analysis. Consequently, vibration generated by construction activities associated with the proposed project are not expected to be perceptible at nearby residences, and the construction-generated vibrations would not be expected to result in structural damage to such residences.

The nearest vibration-sensitive receptors would be the existing residences surrounding the project site. The primary vibration-generating activities associated with development of the proposed project would occur during grading, placement of infrastructure, and construction of foundations. Vibration generated by such construction activities would not be expected to result in architectural damage to the nearby residential structures. Furthermore, construction is temporary and construction equipment would operate intermittently throughout the course of a day, would be restricted to daytime hours per the City of Oakley Municipal Code Section 4.2.208, and would likely only occur over portions of the improvement area at a time.

Therefore, the project would not involve the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels resulting in a ***less-than-significant*** impact.

d. Construction of the project would also result in temporarily increased noise levels from grading, and construction activities on the project site. Construction noise would include mechanical equipment such as earthmovers, dump trucks, and similar equipment during grading, the delivery of construction materials, construction of foundations, framing, roofing, and similar operations. Construction activity would likely only occur over portions of the improvement area at a time.

[11] $PPV_{Equipment}=PPV_{Reference}(25/D)^{1.1}$

Where: D = distance from equipment to the receiver in feet (assumed to be 75 feet)

PPV_{Ref} = reference PPV at 25 feet (from Table 4)

Source: Caltrans. *Transportation and Construction Vibration Guidance Manual [p. 37]*. September 2013.

Because noise levels dissipate with distance from the source, noise levels received by the surrounding sensitive receptors would fluctuate depending on the distance of the noise source on the project site from the fixed location of the receptor. Although construction activities would only occur for a limited duration, project construction activities could generate noise that would result in temporary increases in noise levels in the project vicinity. Based on the Federal Highway Administration's Construction Noise Handbook, activities involved in typical construction would generate maximum noise levels up to 90 dB at a distance of 50 feet.[12] The nearest sensitive receptors to the construction noise would be the residences to the east and north of the project site at least 75 feet away. Maximum noise levels at the nearest sensitive receptor would be 86.5 dB, assuming direct transmission from the source to the receptor with no noise screening structures in between.[13] However, a sound wall exists along the entire stretch of Neroly Road across from the project site. Currently blocks noise from traffic on Neroly Road, and would also block noise from construction activity, thereby reducing the maximum noise levels below the 86.5 dB level presented above. The Federal Highway Administration's *Noise Barrier Design Handbook* indicates that noise barrier effectiveness varies based on materials used as well as design aspects of the barrier such as barrier height and shape. Given that the existing sound wall is approximately six feet tall and is of sound construction the noise reduction would be 5-10 dB for noise moving over the top of the wall, and between 40-20 dB reduced for noise moving through the wall, which would result in a perceptible reduction of sound energy and noise levels reaching the nearby sensitive receptors.[14] Additionally, construction of the proposed project would be subject to the City of Oakley Municipal Code's Noise Control Chapter. Specifically, construction near residential areas is limited to between 7:30 AM and 7:00 PM Monday through Friday, and between 9:00 AM and 7:00 PM on Saturdays, Sundays, and holidays. Because the proposed project would adhere to the City of Oakley Municipal Code Noise Control Chapter, noise generated by the project would be allowable under the Municipal Code and the project would not result in a substantial increase in the ambient noise levels existing without the project. Therefore, the proposed project would result in a ***less-than-significant*** impact.

e,f. The project site is not located near an existing airport or private airstrip and is not within an area covered by an existing airport land use plan. Therefore, the proposed project would have ***no impact***.

[12] Federal Highway Administration. *Highway Traffic Noise: Construction Noise Handbook*. Updated November 30, 2015.

[13] Engineering Page. *Noise Attenuation by Distance (Point Source)*. Accessible at http://www.engineeringpage.com/cgi-bin/noise/dis_one.pl. Accessed on June 9, 2016.

[14] U.S. Department of Transportation. Federal Highway Administration. *Noise Barrier Design Handbook*. Available at http://www.fhwa.dot.gov/environment/noise/noise_barriers/design_construction/design/design03.cfm. Accessed on June 6, 2016.

Issues	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XIII. POPULATION AND HOUSING. *Would the project:*				
a. Induce substantial 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 housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	✖
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	✖

Discussion

a. The proposed project would only construct one housing unit for the on-site manager, and would not be expected to induce significant population growth in the area. The construction of a self-storage facility would add a new business to the area. However, the self-storage facility would be expected to be used predominantly by existing residents and businesses, and would not be anticipated to attract new residents or lead to population growth. The project site is adjacent to existing single-family residences to the east and although the land to the west and south of the project site is currently vacant, the City of Oakley has zoned the area for future development. Furthermore, the City of Oakley's General Plan anticipated buildout of the site for housing given the site's designation as SL. Developing the site as a self-storage facility rather than single-family residences would, in fact, reduce the amount of anticipated induced population growth. Therefore, completion of the project would not induce population growth beyond the growth anticipated by the General Plan and would result in a ***less-than-significant*** impact.

b,c. Structures do not currently exist on the project site, and the project does not involve displacement of existing housing or people. Therefore, the project would result in ***no impact***.

Issues	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XIV. 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:*				
a. Fire protection?	☐	☐	✖	☐
b. Police protection?	☐	☐	✖	☐
c. Schools?	☐	☐	✖	☐
d. Parks?	☐	☐	✖	☐

Discussion

a. Fire protection is currently provided to the City of Oakley by the ECCCFPD. A new fire station was built to accommodate increased demand, staffing and equipment in 2010. With the completion of the new fire station the City of Oakley General Plan anticipates fire service to be adequate for the City. The proposed project would be subject to the fire facilities impact fees established by the City of Oakley Municipal Code Section 9.2.502. Payment of the required impact fee would mitigate any potential impacts caused by increased demands on fire services that may result from the proposed project, and ensure that the project conforms with the City of Oakley's General Plan Policy 4.4.2. Additionally, the proposed project does not include any alterations to the circulation system of the surrounding area, which could conflict with the City of Oakley's General Plan Policy 4.4.4, or lead to a degradation in response times. Given the payment of fees in accordance with City of Oakley Municipal Code guidelines the proposed project is not expected to cause significant degradation to response times or service rations, which would induce the need for physically altered or expanded governmental facilities and the project would, therefore, result in a ***less-than-significant*** impact.

b. Police protection is currently provided to the City of Oakley by the Oakley Police Department and the Contra Costa County Sheriff's Office. The Oakley 2020 General Plan *Background Report* indicated that in 2000-2001 the Police Department had an officer-to-population ratio of .07 officers per 1,000 residents.[15] The proposed project would involve the construction and operation of a self-storage facility with a manager's residence on-site. The self-storage facility would

[15] City of Oakley. *Oakley 2020 General Plan Background Report*. [p. 5-6]. September 2001.

not be expected to generate a significant increase in police service demand, given the nature of the commercial use, nor would the project significantly alter the officer to resident ratio. Indeed, the increase in demand for police services would most likely be less for a self-storage facility than if the project site was developed in accordance with its current General Plan Land Use designation of SL, because residences typically generate a higher demand for police services than self-storage facilities. Nevertheless, police service demand from residential development at the project site would have been included in City of Oakley's demand predictions based on anticipated General Plan buildout. In addition, the project would be conditioned to participate in the funding of the City's Special Police Services Tax by voting to approve the special tax for the parcel. Therefore, the proposed project would create a demand equal to or less than that anticipated for the site and would not induce the need for physically altered or expanded governmental facilities. Therefore, the proposed project would result in a ***less-than-significant*** impact.

c. The Oakley Unified School District and the Antioch Unified School District provide public educational services to the City of Oakley. The project site is within the limits of the Antioch Unified School District, and as a result, any required development fees would be paid to the Antioch Unified School District. Pursuant to Government Code Section 65995 et. seq. and Education Code Section 17620 et. seq., the Antioch Unified School District requires developer fees to be paid at the rate of $0.54 per square foot of Commercial-Industrial Development, and $3.36 per square foot of residential development. The proposed project would be required to pay such fees for both the self-storage commercial space and office, as well as the manager's residence. Payment of the impact fees would sufficiently mitigate any potential impacts on public schools in the area. Additionally, the on-site manager's residence that would be constructed as part of the project is not expected to require physical expansion or alteration of any existing public school facilities, and therefore, the proposed project would result in a ***less-than-significant*** impact.

d. The proposed project involves the construction of a self-storage facility, office, and manager's residence. The commercial aspects of the project, the self-storage facility and office, would not be expected to generate impacts on parks. The increase in residents induced by the construction of the manager's residence could lead to a slight increase in park use in the area; however, the small number of potential residents would make the project unlikely to generate the need for new or expanded park facilities. Nevertheless, development fees would be applied to the proposed project in accordance with the City of Oakley Municipal Code Section 9.2.2. Payment of required development fees would ensure that the proposed project would not reduce performance objectives requiring new or expanded park facilities resulting in a ***less-than-significant*** impact on public parks.

Issues	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XV. RECREATION. *Would the project:*				
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 involves the construction of a self-storage facility, office, and manager's residence. The commercial aspects of the project, the self-storage facility and office, would not be expected to generate impacts on parks. The increase in residents induced by the construction of the manager's residence could lead to a slight increase in park use in the area; however, the small number of potential residents makes the project unlikely to substantially increase the use of existing parks or lead to accelerated physical deterioration of the facilities. The proposed project does not include the construction of recreational facilities and the small number of residences would again be unlikely to impact existing facilities. Therefore, the proposed project would be unlikely to increase the use of existing recreational facilities leading to substantial physical deterioration or the need to expand recreational facilities and the proposed project would result in a ***less-than-significant*** impact on recreation.

Issues	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XVI. TRANSPORTATION/TRAFFIC. *Would the project:*				
a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	✖	☐
b. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	✖	☐
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	✖	☐
d. Substantially increase hazards due to a design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	✖	☐
e. Result in inadequate emergency access?	☐	☐	✖	☐
f. Conflicts with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	✖	☐

Discussion

a,b. The proposed project includes the construction of a 107,758 sf self-storage facility accessed by Neroly Road. Significant nearby roadways that would provide access to Neroly Road include Laurel Road and Main Street. The City of Oakley General Plan establishes a Level of Service (LOS) standard of D for signalized intersections during peak periods. The General Plan EIR indicates that any project which would reduce a LOS of a City intersection to below the acceptable LOS (D) during peak hours, would be interpreted as having a substantial impact on circulation. To determine whether or not the proposed project would exceed the City's impact threshold the daily vehicle trips induced by the proposed project were estimated using trip rates for mini-warehouse facilities and the manager's single-family residence from the Institute of Traffic Engineer's (ITE) *Trip Generation Handbook*.[16] The project was estimated to create a total of 279 Daily trips, with 16 of those trips occurring in the AM peak traffic hour and 29 of the total trips occurring during the PM peak hour. The relatively small number of

[16] Institute of Transportation Engineers. *Trip Generation Handbook – 9th Edition*. September 2012.

peak hour trips would not be expected to degrade any of the nearby intersections to unacceptable levels during peak hours. Additionally, the 279 estimated daily trips would not be considered substantial in relation to existing or future traffic in the area. Indeed, Table 2 of the City of Oakley General Plan Background Report, *Existing Roadway Levels of Service*, indicates that Neroly Road South of Main Street currently saw a daily traffic volume of 17,400 vehicles in 2000. Moreover, Table 3-1 of the City of Oakley General Plan indicates that Neroly Road south of Main Street would have a future LOS of C or better with a daily volume of 19,900 and Neroly Road West of Laurel Road is anticipated by the City of Oakley a LOS of D with a daily volume of 15,300.

The General Plan traffic predictions were based off of General Plan Land Use designations for the planning area. The proposed project includes a General Plan amendment that would change the land use designation for the project site from single-family low density residential to commercial. The ITE estimates a residential development on the 4.7-acre project site would create 122 daily trips, with 12 AM peak hour trips and 17 PM peak hour trips. Because the proposed project would include changing the General Plan land use designation to a land use that would be expected to generate more daily trips, the proposed project would increase the amount of daily trips anticipated from the project site. However, given the year 2000 traffic levels available in the General Plan and the traffic volumes anticipated by the General Plan for area buildout, an increase of 157 daily trips, from the 122 anticipated by the single-family low density residential designation, would not be expected to significantly impact the traffic volumes in the area as sufficient capacity exists in surrounding roadways and the additional trips would be distributed over the entire circulation system in the area.

The City of Oakley General Plan applies all relevant measures from the Contra Costa Transportation Authority's Congestion Management Program through Goal 3.1 and Policy 3.1.2. The only road within the City of Oakley's planning area considered to be a Route of Regional Significance is Main Street. As discussed above, the proposed project would not lead to the deterioration of the LOS at the intersection of Neroly and Main Street.

Given the above discussion, the proposed project would not be expected to create a substantial traffic increase in relation to the existing road network, nor would the project be expected to exceed a LOS established by the County Congestion Management Plan. Therefore, the proposed project would result in a ***less-than-significant*** impact.

c. The project site would not be located near an airport; therefore, the proposed project would not require any changes to existing regional air traffic activity and ***no impact*** would occur.

d,e. The proposed project has been designed in compliance with City standards. Changes are not being made to the existing roadways, and the proposed project

is not expected to introduce design features that would be considered hazardous or incompatible uses. The proposed project would have one entrance point and three exit points on Neroly Road, which would provide sufficient emergency access to the site. As such, the project would not substantially increase hazards due to design features or incompatible uses, and emergency access to the site would be adequate; therefore, the project would result in a ***less-than-significant*** impact.

g. The proposed project would have access to the Tri Delta Transit system. Line 383 provides the closest service to the project site, with multiple stations within the City of Oakley, and major regional access would be provided by the Antioch Park & Ride (Hillcrest). The proposed project would not include alterations to the surrounding circulation system of the area, nor would the project interfere with current transit options available for the area. Additionally, the proposed project would not interfere with existing bicycle infrastructure. Therefore, the proposed project would not conflict with alternative transportation routes or policies resulting in a ***less-than-significant*** impact.

Issues	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XVII. UTILITIES AND SERVICE SYSTEMS. *Would the project:*				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	✖	☐
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	✖	☐
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	✖	☐
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	✖	☐
e. 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?	☐	☐	✖	☐
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	✖	☐
g. Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	✖	☐

Discussion

a,b,e. The Ironhouse Sanitary District (ISD) provides wastewater service to Oakley and unincorporated areas of the County. The City of Oakley is entirely within ISD's boundary. The wastewater services involve the transmission of wastewater from residential, commercial and light industry to a treatment facility and the final disposal of the wastewater and residual waste solids. ISD owns and operates the wastewater collection, treatment, storage, and effluent recycling facilities that serve the City of Oakley.

The proposed project would tie into the existing eight-inch sanitary sewer line located within Gold Run Drive, through a new sewer connector running from the proposed office and manager's residence under Neroly Road along Placer Drive

to the intersection of Placer Drive and Gold Run Drive. The proposed self-storage facility would generate minimal wastewater, primarily associated with the small office and on-site manager's unit. The minimal wastewater associated with the proposed project can be accommodated within the existing ISD systems. In addition, the project would be required to pay the necessary sewer connection and capacity fees. Therefore, the proposed project would not require the construction of new wastewater treatment facilities or expansion of existing facilities. Therefore, a ***less-than-significant*** impact to wastewater treatment facilities would occur.

c. As discussed in the Hydrology section of this IS/MND the proposed project would include a bioretention basin designed to exceed the minimum volume requirements to treat runoff created by proposed impervious surfaces. The bioretention basin would treat stormwater and allow for runoff to infiltrate the soil. Any excess stormwater would be transferred to existing stormwater infrastructure on Neroly Road through a new storm drain pipe. Because the SWCPs have been designed in accordance with the Countywide NPDES permit and C.3 Standards, a ***less-than-significant*** impact would occur related to stormwater runoff.

d. Water is provided to the project site by the Diablo Water District (DWD). According to the DWD Final 2010 Urban Water Management Plan, water demand and connection projections for DWD are based on buildout land uses in current adopted general plans. Over the period from 2010 to 2035, DWD's demand is estimated to increase from 1,815 MG per year to 5,572 MG per year. DWD's primary water supply for its distribution system is treated surface water from the Bureau of Reclamation's Central Valley Project (CVP) purchased from the Contra Costa Water District (CCWD). CVP water is conveyed through the Contra Costa Canal and treated at the Randall-Bold Water Treatment Plant in Oakley, which is jointly owned by DWD and CCWD. DWD has developed a groundwater supply system that provides additional supply reliability. The first groundwater well came online in 2006. When fully implemented, groundwater may comprise up to 20 percent of DWD's total supply. As indicated in the Urban Water Management Plan, DWD has adequate supply sources to meet future needs under normal year, single year and multi-year drought conditions.

The proposed project would tie into the existing 8-inch water main in Neroly Road. The proposed self-storage facility would generate minimal water use, primarily associated with the small office, on-site manager's unit and landscaping. The amount of water used would be less than the amount used if the project site was developed in accordance with the current General Plan Land Use designation of SL. Consequently, the proposed project would use less water than the demand anticipated for the site by DWD, which used the General Plan build out land uses to estimate future water demand. Thus, the minimal water use associated with the proposed project can be accommodated within the existing DWD systems. In addition, the project would be required to pay the

necessary water connection and capacity fees. Therefore, the proposed project would result in a ***less-than-significant*** impact.

f,g. Solid waste collected by Oakley Disposal in the City limits of Oakley is hauled to the recycling Center and Transfer Station in Pittsburg, which is operated by Contra Costa Waste Service. Residential, commercial, and industrial waste is processed at this transfer facility and the residual material is hauled to Potrero Hills Landfill (PHLF) outside Suisun City. PHLF is permitted to accept waste through 2048. Oakley Disposal Service provides weekly curbside recycling service whereby each residential customer is provided two 12-gallon crates for discarding recyclables. Green waste service is provided on a bi-weekly basis. The curbside material is transported to the Concord Facility (Mt. Diablo Recycling) where the recyclables are sorted and moved to the appropriate markets for processing, composting, etc. The proposed self-storage facility and manager's residence can be accommodated within the existing solid waste facilities and will comply with all the required local and state regulations; therefore, a ***less-than-significant*** impact would result

Issues	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.				
a. Does the project have the potential to 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, 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. Although relatively unlikely, based upon the current land cover types found on-site, special-status wildlife species and/or federally- or state-protected birds not covered under the ECCCHCP could be occupying the site. In addition, although unlikely, the possibility exists for subsurface excavation of the site during grading and other construction activities to unearth deposits of cultural significance. However, this IS/MND includes mitigation measures that would reduce any potential impacts to less-than-significant levels. Therefore, the proposed project would have ***less-than-significant*** impacts related to degradation of the quality of the environment, reduction of habitat, threatened species, and/or California's history or prehistory.

b. The proposed project in conjunction with other development within the City of Oakley could incrementally contribute to cumulative impacts in the area. However, mitigation measures for all potentially significant project-level impacts identified for the proposed project in this IS/MND have been included that would reduce impacts to less-than-significant levels. As such, the project's incremental contribution towards cumulative impacts would not be considered significant. In addition, all future discretionary development projects in the area would be required to undergo the same environmental analysis and mitigate any potential impacts, as necessary. Therefore, the proposed project would not have any

impacts that would be cumulatively considerable, and impacts would be ***less than significant***.

c. The potential impacts identified in this study are minor and would be mitigated to a less-than-significant level with implementation of required mitigation measures. The proposed project would not result in a substantial adverse effect on human beings, either directly or indirectly. Therefore, impacts related to environmental effects that could cause adverse effects on human beings would be ***less than significant***.

APPENDIX A

Air Quality and Greenhouse Gas Modeling Results

Acorn Self Storage

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	105.54	1000sqft	2.42	105,537.00	0
Parking Lot	7.00	Space	0.06	2,700.00	0
Single Family Housing	1.00	Dwelling Unit	0.32	1,800.00	3

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2018
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	414.88	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 intensity factor adjusted based on PG&E's anticipated progress towards statewide RPS goals

Land Use - Site Plan

Construction Phase - based on information provided by applicant

Trips and VMT - based on information provided by applicant

Grading - based on information from applicant

Vehicle Trips - ITE Generation Rates Mini-Warehouse

Energy Use - Applicant Information

Construction Off-road Equipment Mitigation - Information from Applicant

Mobile Land Use Mitigation -

Energy Mitigation - Applicant Information

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

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tblConstEquipMitigation	Tier	No Change	Tier 2
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tblConstructionPhase	NumDays	10.00	131.00
tblConstructionPhase	NumDays	220.00	131.00
tblConstructionPhase	NumDays	6.00	67.00
tblConstructionPhase	NumDays	10.00	132.00
tblConstructionPhase	NumDays	3.00	5.00
tblConstructionPhase	PhaseEndDate	12/17/2018	6/29/2018
tblConstructionPhase	PhaseStartDate	6/16/2018	12/29/2017
tblGrading	AcresOfGrading	33.50	6.00
tblGrading	AcresOfGrading	7.50	0.00
tblGrading	MaterialImported	0.00	5,333.00
tblLandUse	LandUseSquareFeet	2,800.00	2,700.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	414.88
tblProjectCharacteristics	OperationalYear	2014	2018

tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblVehicleTrips	ST_TR	2.59	2.50
tblVehicleTrips	ST_TR	10.08	9.52
tblVehicleTrips	SU_TR	2.59	2.50
tblVehicleTrips	SU_TR	8.77	9.52
tblVehicleTrips	WD_TR	2.59	2.50
tblVehicleTrips	WD_TR	9.57	9.52

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					
2017	0.2433	2.2543	1.7147	2.2600e-003	0.2205	0.1315	0.3521	0.1154	0.1214	0.2368	0.0000	203.5617	203.5617	0.0566	0.0000	204.7502
2018	1.4570	1.4667	1.3417	2.3000e-003	0.0373	0.0864	0.1237	0.0101	0.0831	0.0932	0.0000	190.7874	190.7874	0.0301	0.0000	191.4201
Total	**1.7003**	**3.7209**	**3.0564**	**4.5600e-003**	**0.2578**	**0.2179**	**0.4757**	**0.1254**	**0.2045**	**0.3300**	**0.0000**	**394.3491**	**394.3491**	**0.0867**	**0.0000**	**396.1703**

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					
2017	0.0986	1.8043	1.5664	2.2600e-003	0.2205	0.0604	0.2809	0.1154	0.0604	0.1757	0.0000	203.5615	203.5615	0.0566	0.0000	204.7499
2018	1.3276	1.4520	1.3210	2.3000e-003	0.0373	0.0566	0.0939	0.0101	0.0565	0.0666	0.0000	190.7872	190.7872	0.0301	0.0000	191.4199
Total	**1.4262**	**3.2563**	**2.8874**	**4.5600e-003**	**0.2578**	**0.1170**	**0.3749**	**0.1254**	**0.1169**	**0.2423**	**0.0000**	**394.3487**	**394.3487**	**0.0867**	**0.0000**	**396.1699**

	ROG	NOx	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	**16.12**	**12.49**	**5.53**	**0.00**	**0.00**	**46.29**	**21.20**	**0.00**	**42.85**	**26.56**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4930	2.2000e-004	0.0187	1.0000e-005		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.1557	0.0529	0.2086	3.6000e-004	1.0000e-005	0.2186
Energy	2.2700e-003	0.0205	0.0166	1.2000e-004		1.5700e-003	1.5700e-003		1.5700e-003	1.5700e-003	0.0000	100.6807	100.6807	5.9000e-003	1.5400e-003	101.2829
Mobile	0.1633	0.4289	1.7901	4.1900e-003	0.2945	5.8800e-003	0.3004	0.0790	5.4100e-003	0.0844	0.0000	312.9432	312.9432	0.0122	0.0000	313.1994
Waste						0.0000	0.0000		0.0000	0.0000	20.3945	0.0000	20.3945	1.2053	0.0000	45.7054
Water						0.0000	0.0000		0.0000	0.0000	7.7636	24.9456	32.7092	0.7991	0.0192	55.4398
Total	**0.6585**	**0.4496**	**1.8253**	**4.3200e-003**	**0.2945**	**8.9700e-003**	**0.3034**	**0.0790**	**8.5000e-003**	**0.0875**	**28.3138**	**438.6224**	**466.9362**	**2.0229**	**0.0207**	**515.8461**

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	0.4864	1.0000e-004	8.5300e-003	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0882	0.0882	2.0000e-005	0.0000	0.0890
Energy	1.6100e-003	0.0146	0.0117	9.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	91.6851	91.6851	5.6000e-003	1.3900e-003	92.2329
Mobile	0.1633	0.4289	1.7901	4.1900e-003	0.2945	5.8800e-003	0.3004	0.0790	5.4100e-003	0.0844	0.0000	312.9432	312.9432	0.0122	0.0000	313.1994
Waste						0.0000	0.0000		0.0000	0.0000	20.3945	0.0000	20.3945	1.2053	0.0000	45.7054
Water						0.0000	0.0000		0.0000	0.0000	7.7636	24.9456	32.7092	0.7990	0.0192	55.4274
Total	**0.6513**	**0.4435**	**1.8103**	**4.2800e-003**	**0.2945**	**7.0400e-003**	**0.3015**	**0.0790**	**6.5700e-003**	**0.0856**	**28.1581**	**429.6620**	**457.8201**	**2.0221**	**0.0206**	**506.6540**

	ROG	NOx	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	**1.09**	**1.35**	**0.82**	**0.93**	**0.00**	**21.52**	**0.64**	**0.00**	**22.71**	**2.20**	**0.55**	**2.04**	**1.95**	**0.04**	**0.92**	**1.78**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/6/2017	3/10/2017	5	5	
2	Grading	Grading	3/11/2017	6/13/2017	5	67	
3	Paving	Paving	6/14/2017	12/14/2017	5	132	
4	Building Construction	Building Construction	12/15/2017	6/15/2018	5	131	
5	Architectural Coating	Architectural Coating	12/29/2017	6/29/2018	5	131	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 6

Acres of Paving: 0

Residential Indoor: 3,645; Residential Outdoor: 1,215; Non-Residential Indoor: 158,427; Non-Residential Outdoor: 52,809 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Scrapers	1	8.00	361	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
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
Site Preparation	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	667.00	12.40	7.30	0.50	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	46.00	18.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	9.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Clean Paved Roads

3.2 Site Preparation - 2017

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
Off-Road	6.3200e-003	0.0716	0.0428	6.0000e-005		3.4900e-003	3.4900e-003		3.2100e-003	3.2100e-003	0.0000	5.5326	5.5326	1.7000e-003	0.0000	5.5682
Total	**6.3200e-003**	**0.0716**	**0.0428**	**6.0000e-005**	**0.0000**	**3.4900e-003**	**3.4900e-003**	**0.0000**	**3.2100e-003**	**3.2100e-003**	**0.0000**	**5.5326**	**5.5326**	**1.7000e-003**	**0.0000**	**5.5682**

3.2 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	1.0000e-004	9.5000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1584	0.1584	1.0000e-005	0.0000	0.1585
Total	**7.0000e-005**	**1.0000e-004**	**9.5000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1584**	**0.1584**	**1.0000e-005**	**0.0000**	**0.1585**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
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
Off-Road	1.8300e-003	0.0487	0.0366	6.0000e-005		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003	0.0000	5.5325	5.5325	1.7000e-003	0.0000	5.5681
Total	**1.8300e-003**	**0.0487**	**0.0366**	**6.0000e-005**	**0.0000**	**1.3400e-003**	**1.3400e-003**	**0.0000**	**1.3400e-003**	**1.3400e-003**	**0.0000**	**5.5325**	**5.5325**	**1.7000e-003**	**0.0000**	**5.5681**

3.2 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	1.0000e-004	9.5000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1584	0.1584	1.0000e-005	0.0000	0.1585
Total	**7.0000e-005**	**1.0000e-004**	**9.5000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1584**	**0.1584**	**1.0000e-005**	**0.0000**	**0.1585**

3.3 Grading - 2017

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					0.2052	0.0000	0.2052	0.1113	0.0000	0.1113	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0904	0.9434	0.6354	6.9000e-004		0.0521	0.0521		0.0479	0.0479	0.0000	63.9594	63.9594	0.0196	0.0000	64.3710
Total	**0.0904**	**0.9434**	**0.6354**	**6.9000e-004**	**0.2052**	**0.0521**	**0.2573**	**0.1113**	**0.0479**	**0.1592**	**0.0000**	**63.9594**	**63.9594**	**0.0196**	**0.0000**	**64.3710**

3.3 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.7200e-003	9.2300e-003	0.0608	1.0000e-005	1.5000e-004	5.0000e-005	1.9000e-004	4.0000e-005	4.0000e-005	8.0000e-005	0.0000	1.0733	1.0733	2.0000e-005	0.0000	1.0737
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	1.1300e-003	1.6500e-003	0.0159	4.0000e-005	3.0400e-003	2.0000e-005	3.0600e-003	8.1000e-004	2.0000e-005	8.3000e-004	0.0000	2.6527	2.6527	1.4000e-004	0.0000	2.6556
Total	**4.8500e-003**	**0.0109**	**0.0767**	**5.0000e-005**	**3.1900e-003**	**7.0000e-005**	**3.2500e-003**	**8.5000e-004**	**6.0000e-005**	**9.1000e-004**	**0.0000**	**3.7260**	**3.7260**	**1.6000e-004**	**0.0000**	**3.7293**

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					0.2052	0.0000	0.2052	0.1113	0.0000	0.1113	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0238	0.6021	0.4500	6.9000e-004		0.0178	0.0178		0.0178	0.0178	0.0000	63.9594	63.9594	0.0196	0.0000	64.3709
Total	**0.0238**	**0.6021**	**0.4500**	**6.9000e-004**	**0.2052**	**0.0178**	**0.2230**	**0.1113**	**0.0178**	**0.1291**	**0.0000**	**63.9594**	**63.9594**	**0.0196**	**0.0000**	**64.3709**

3.3 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.7200e-003	9.2300e-003	0.0608	1.0000e-005	1.5000e-004	5.0000e-005	1.9000e-004	4.0000e-005	4.0000e-005	8.0000e-005	0.0000	1.0733	1.0733	2.0000e-005	0.0000	1.0737
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	1.1300e-003	1.6500e-003	0.0159	4.0000e-005	3.0400e-003	2.0000e-005	3.0600e-003	8.1000e-004	2.0000e-005	8.3000e-004	0.0000	2.6527	2.6527	1.4000e-004	0.0000	2.6556
Total	**4.8500e-003**	**0.0109**	**0.0767**	**5.0000e-005**	**3.1900e-003**	**7.0000e-005**	**3.2500e-003**	**8.5000e-004**	**6.0000e-005**	**9.1000e-004**	**0.0000**	**3.7260**	**3.7260**	**1.6000e-004**	**0.0000**	**3.7293**

3.4 Paving - 2017

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	0.1083	1.0865	0.7957	1.1600e-003		0.0675	0.0675		0.0622	0.0622	0.0000	106.4249	106.4249	0.0320	0.0000	107.0968
Paving	8.0000e-005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1083**	**1.0865**	**0.7957**	**1.1600e-003**		**0.0675**	**0.0675**		**0.0622**	**0.0622**	**0.0000**	**106.4249**	**106.4249**	**0.0320**	**0.0000**	**107.0968**

3.4 Paving - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3300e-003	4.8700e-003	0.0469	1.1000e-004	8.9800e-003	7.0000e-005	9.0500e-003	2.3900e-003	7.0000e-005	2.4500e-003	0.0000	7.8393	7.8393	4.1000e-004	0.0000	7.8479
Total	**3.3300e-003**	**4.8700e-003**	**0.0469**	**1.1000e-004**	**8.9800e-003**	**7.0000e-005**	**9.0500e-003**	**2.3900e-003**	**7.0000e-005**	**2.4500e-003**	**0.0000**	**7.8393**	**7.8393**	**4.1000e-004**	**0.0000**	**7.8479**

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	0.0479	1.0166	0.8441	1.1600e-003		0.0364	0.0364		0.0364	0.0364	0.0000	106.4247	106.4247	0.0320	0.0000	107.0966
Paving	8.0000e-005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0479**	**1.0166**	**0.8441**	**1.1600e-003**		**0.0364**	**0.0364**		**0.0364**	**0.0364**	**0.0000**	**106.4247**	**106.4247**	**0.0320**	**0.0000**	**107.0966**

3.4 Paving - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3300e-003	4.8700e-003	0.0469	1.1000e-004	8.9800e-003	7.0000e-005	9.0500e-003	2.3900e-003	7.0000e-005	2.4500e-003	0.0000	7.8393	7.8393	4.1000e-004	0.0000	7.8479
Total	**3.3300e-003**	**4.8700e-003**	**0.0469**	**1.1000e-004**	**8.9800e-003**	**7.0000e-005**	**9.0500e-003**	**2.3900e-003**	**7.0000e-005**	**2.4500e-003**	**0.0000**	**7.8393**	**7.8393**	**4.1000e-004**	**0.0000**	**7.8479**

3.5 Building Construction - 2017

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	0.0183	0.1257	0.0894	1.4000e-004		8.0400e-003	8.0400e-003		7.7000e-003	7.7000e-003	0.0000	11.6498	11.6498	2.5900e-003	0.0000	11.7042
Total	**0.0183**	**0.1257**	**0.0894**	**1.4000e-004**		**8.0400e-003**	**8.0400e-003**		**7.7000e-003**	**7.7000e-003**	**0.0000**	**11.6498**	**11.6498**	**2.5900e-003**	**0.0000**	**11.7042**

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1400e-003	8.8900e-003	0.0138	2.0000e-005	6.4000e-004	1.3000e-004	7.7000e-004	1.8000e-004	1.2000e-004	3.0000e-004	0.0000	2.1048	2.1048	2.0000e-005	0.0000	2.1052
Worker	8.5000e-004	1.2400e-003	0.0120	3.0000e-005	2.2900e-003	2.0000e-005	2.3100e-003	6.1000e-004	2.0000e-005	6.3000e-004	0.0000	2.0034	2.0034	1.0000e-004	0.0000	2.0056
Total	**1.9900e-003**	**0.0101**	**0.0257**	**5.0000e-005**	**2.9300e-003**	**1.5000e-004**	**3.0800e-003**	**7.9000e-004**	**1.4000e-004**	**9.3000e-004**	**0.0000**	**4.1082**	**4.1082**	**1.2000e-004**	**0.0000**	**4.1108**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.1900e-003	0.1097	0.0844	1.4000e-004		4.4900e-003	4.4900e-003		4.4900e-003	4.4900e-003	0.0000	11.6498	11.6498	2.5900e-003	0.0000	11.7041
Total	**5.1900e-003**	**0.1097**	**0.0844**	**1.4000e-004**		**4.4900e-003**	**4.4900e-003**		**4.4900e-003**	**4.4900e-003**	**0.0000**	**11.6498**	**11.6498**	**2.5900e-003**	**0.0000**	**11.7041**

3.5 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1400e-003	8.8900e-003	0.0138	2.0000e-005	6.4000e-004	1.3000e-004	7.7000e-004	1.8000e-004	1.2000e-004	3.0000e-004	0.0000	2.1048	2.1048	2.0000e-005	0.0000	2.1052
Worker	8.5000e-004	1.2400e-003	0.0120	3.0000e-005	2.2900e-003	2.0000e-005	2.3100e-003	6.1000e-004	2.0000e-005	6.3000e-004	0.0000	2.0034	2.0034	1.0000e-004	0.0000	2.0056
Total	**1.9900e-003**	**0.0101**	**0.0257**	**5.0000e-005**	**2.9300e-003**	**1.5000e-004**	**3.0800e-003**	**7.9000e-004**	**1.4000e-004**	**9.3000e-004**	**0.0000**	**4.1082**	**4.1082**	**1.2000e-004**	**0.0000**	**4.1108**

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1740	1.2336	0.9398	1.4900e-003		0.0751	0.0751		0.0720	0.0720	0.0000	126.1282	126.1282	0.0271	0.0000	126.6974
Total	**0.1740**	**1.2336**	**0.9398**	**1.4900e-003**		**0.0751**	**0.0751**		**0.0720**	**0.0720**	**0.0000**	**126.1282**	**126.1282**	**0.0271**	**0.0000**	**126.6974**

3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0111	0.0879	0.1398	2.6000e-004	6.9500e-003	1.2900e-003	8.2400e-003	1.9900e-003	1.1900e-003	3.1800e-003	0.0000	22.5583	22.5583	1.7000e-004	0.0000	22.5620
Worker	8.2800e-003	0.0122	0.1168	3.0000e-004	0.0250	1.9000e-004	0.0252	6.6600e-003	1.8000e-004	6.8400e-003	0.0000	21.0442	21.0442	1.0500e-003	0.0000	21.0663
Total	**0.0193**	**0.1001**	**0.2566**	**5.6000e-004**	**0.0320**	**1.4800e-003**	**0.0335**	**8.6500e-003**	**1.3700e-003**	**0.0100**	**0.0000**	**43.6025**	**43.6025**	**1.2200e-003**	**0.0000**	**43.6283**

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	0.0566	1.1964	0.9205	1.4900e-003		0.0489	0.0489		0.0489	0.0489	0.0000	126.1280	126.1280	0.0271	0.0000	126.6973
Total	**0.0566**	**1.1964**	**0.9205**	**1.4900e-003**		**0.0489**	**0.0489**		**0.0489**	**0.0489**	**0.0000**	**126.1280**	**126.1280**	**0.0271**	**0.0000**	**126.6973**

3.5 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0111	0.0879	0.1398	2.6000e-004	6.9500e-003	1.2900e-003	8.2400e-003	1.9900e-003	1.1900e-003	3.1800e-003	0.0000	22.5583	22.5583	1.7000e-004	0.0000	22.5620
Worker	8.2800e-003	0.0122	0.1168	3.0000e-004	0.0250	1.9000e-004	0.0252	6.6600e-003	1.8000e-004	6.8400e-003	0.0000	21.0442	21.0442	1.0500e-003	0.0000	21.0663
Total	**0.0193**	**0.1001**	**0.2566**	**5.6000e-004**	**0.0320**	**1.4800e-003**	**0.0335**	**8.6500e-003**	**1.3700e-003**	**0.0100**	**0.0000**	**43.6025**	**43.6025**	**1.2200e-003**	**0.0000**	**43.6283**

3.6 Architectural Coating - 2017

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	9.5600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7000e-004	1.0900e-003	9.3000e-004	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	0.1277	0.1277	1.0000e-005	0.0000	0.1280
Total	**9.7300e-003**	**1.0900e-003**	**9.3000e-004**	**0.0000**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**	**0.0000**	**0.1277**	**0.1277**	**1.0000e-005**	**0.0000**	**0.1280**

3.6 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	2.1000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0356	0.0356	0.0000	0.0000	0.0357
Total	**2.0000e-005**	**2.0000e-005**	**2.1000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0356**	**0.0356**	**0.0000**	**0.0000**	**0.0357**

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	9.5600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.0000e-005	1.1800e-003	9.2000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.1277	0.1277	1.0000e-005	0.0000	0.1280
Total	**9.6200e-003**	**1.1800e-003**	**9.2000e-004**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.1277**	**0.1277**	**1.0000e-005**	**0.0000**	**0.1280**

3.6 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	2.1000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0356	0.0356	0.0000	0.0000	0.0357
Total	**2.0000e-005**	**2.0000e-005**	**2.1000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0356**	**0.0356**	**0.0000**	**0.0000**	**0.0357**

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2425					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.1304	0.1205	1.9000e-004		9.7900e-003	9.7900e-003		9.7900e-003	9.7900e-003	0.0000	16.5962	16.5962	1.5800e-003	0.0000	16.6293
Total	**1.2619**	**0.1304**	**0.1205**	**1.9000e-004**		**9.7900e-003**	**9.7900e-003**		**9.7900e-003**	**9.7900e-003**	**0.0000**	**16.5962**	**16.5962**	**1.5800e-003**	**0.0000**	**16.6293**

3.6 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7600e-003	2.5900e-003	0.0248	6.0000e-005	5.3100e-003	4.0000e-005	5.3500e-003	1.4100e-003	4.0000e-005	1.4500e-003	0.0000	4.4605	4.4605	2.2000e-004	0.0000	4.4651
Total	**1.7600e-003**	**2.5900e-003**	**0.0248**	**6.0000e-005**	**5.3100e-003**	**4.0000e-005**	**5.3500e-003**	**1.4100e-003**	**4.0000e-005**	**1.4500e-003**	**0.0000**	**4.4605**	**4.4605**	**2.2000e-004**	**0.0000**	**4.4651**

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	1.2425					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.4000e-003	0.1529	0.1191	1.9000e-004		6.1800e-003	6.1800e-003		6.1800e-003	6.1800e-003	0.0000	16.5962	16.5962	1.5800e-003	0.0000	16.6293
Total	**1.2499**	**0.1529**	**0.1191**	**1.9000e-004**		**6.1800e-003**	**6.1800e-003**		**6.1800e-003**	**6.1800e-003**	**0.0000**	**16.5962**	**16.5962**	**1.5800e-003**	**0.0000**	**16.6293**

3.6 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7600e-003	2.5900e-003	0.0248	6.0000e-005	5.3100e-003	4.0000e-005	5.3500e-003	1.4100e-003	4.0000e-005	1.4500e-003	0.0000	4.4605	4.4605	2.2000e-004	0.0000	4.4651
Total	**1.7600e-003**	**2.5900e-003**	**0.0248**	**6.0000e-005**	**5.3100e-003**	**4.0000e-005**	**5.3500e-003**	**1.4100e-003**	**4.0000e-005**	**1.4500e-003**	**0.0000**	**4.4605**	**4.4605**	**2.2000e-004**	**0.0000**	**4.4651**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1633	0.4289	1.7901	4.1900e-003	0.2945	5.8800e-003	0.3004	0.0790	5.4100e-003	0.0844	0.0000	312.9432	312.9432	0.0122	0.0000	313.1994
Unmitigated	0.1633	0.4289	1.7901	4.1900e-003	0.2945	5.8800e-003	0.3004	0.0790	5.4100e-003	0.0844	0.0000	312.9432	312.9432	0.0122	0.0000	313.1994

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	263.84	263.84	263.84	770,291	770,291
Single Family Housing	9.52	9.52	9.52	21,252	21,252
Total	273.36	273.36	273.36	791,543	791,543

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
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3
Single Family Housing	12.40	4.30	5.40	26.10	29.10	44.80	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.546229	0.063048	0.174586	0.122573	0.033968	0.004845	0.015596	0.024745	0.002089	0.003270	0.006707	0.000678	0.001667

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	75.7654	75.7654	5.3000e-003	1.1000e-003	76.2162
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	78.2416	78.2416	5.4700e-003	1.1300e-003	78.7072
NaturalGas Mitigated	1.6100e-003	0.0146	0.0117	9.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	15.9197	15.9197	3.1000e-004	2.9000e-004	16.0166
NaturalGas Unmitigated	2.2700e-003	0.0205	0.0166	1.2000e-004		1.5700e-003	1.5700e-003		1.5700e-003	1.5700e-003	0.0000	22.4391	22.4391	4.3000e-004	4.1000e-004	22.5757

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	35283	1.9000e-004	1.6300e-003	6.9000e-004	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.8828	1.8828	4.0000e-005	3.0000e-005	1.8943
Unrefrigerated Warehouse-No Rail	385210	2.0800e-003	0.0189	0.0159	1.1000e-004		1.4400e-003	1.4400e-003		1.4400e-003	1.4400e-003	0.0000	20.5563	20.5563	3.9000e-004	3.8000e-004	20.6814
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		**2.2700e-003**	**0.0205**	**0.0166**	**1.2000e-004**		**1.5700e-003**	**1.5700e-003**		**1.5700e-003**	**1.5700e-003**	**0.0000**	**22.4391**	**22.4391**	**4.3000e-004**	**4.1000e-004**	**22.5757**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	271863	1.4700e-003	0.0133	0.0112	8.0000e-005		1.0100e-003	1.0100e-003		1.0100e-003	1.0100e-003	0.0000	14.5077	14.5077	2.8000e-004	2.7000e-004	14.5960
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
Single Family Housing	26461.1	1.4000e-004	1.2200e-003	5.2000e-004	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	1.4121	1.4121	3.0000e-005	3.0000e-005	1.4207
Total		**1.6100e-003**	**0.0146**	**0.0117**	**9.0000e-005**		**1.1100e-003**	**1.1100e-003**		**1.1100e-003**	**1.1100e-003**	**0.0000**	**15.9197**	**15.9197**	**3.1000e-004**	**3.0000e-004**	**16.0166**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	2376	0.4471	3.0000e-005	1.0000e-005	0.4498
Single Family Housing	7072.94	1.3310	9.0000e-005	2.0000e-005	1.3390
Unrefrigerated Warehouse-No Rail	406317	76.4634	5.3400e-003	1.1100e-003	76.9185
Total		**78.2416**	**5.4600e-003**	**1.1400e-003**	**78.7072**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	2142.67	0.4032	3.0000e-005	1.0000e-005	0.4056
Single Family Housing	6729.02	1.2663	9.0000e-005	2.0000e-005	1.2739
Unrefrigerated Warehouse-No Rail	393736	74.0958	5.1800e-003	1.0700e-003	74.5368
Total		**75.7654**	**5.3000e-003**	**1.1000e-003**	**76.2162**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4864	1.0000e-004	8.5300e-003	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0882	0.0882	2.0000e-005	0.0000	0.0890
Unmitigated	0.4930	2.2000e-004	0.0187	1.0000e-005		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.1557	0.0529	0.2086	3.6000e-004	1.0000e-005	0.2186

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	0.0563					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4298					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.5400e-003	1.2000e-004	0.0101	1.0000e-005		1.4800e-003	1.4800e-003		1.4800e-003	1.4800e-003	0.1557	0.0388	0.1945	3.4000e-004	1.0000e-005	0.2041
Landscaping	3.3000e-004	1.0000e-004	8.5300e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0141	0.0141	2.0000e-005	0.0000	0.0145
Total	**0.4930**	**2.2000e-004**	**0.0187**	**1.0000e-005**		**1.5200e-003**	**1.5200e-003**		**1.5200e-003**	**1.5200e-003**	**0.1557**	**0.0529**	**0.2086**	**3.6000e-004**	**1.0000e-005**	**0.2186**

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	0.0563					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4298					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.0000e-005	0.0000	0.0000	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.0740	0.0740	0.0000	0.0000	0.0745
Landscaping	3.3000e-004	1.0000e-004	8.5300e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0141	0.0141	2.0000e-005	0.0000	0.0145
Total	**0.4864**	**1.0000e-004**	**8.5300e-003**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.0882**	**0.0882**	**2.0000e-005**	**0.0000**	**0.0890**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	32.7092	0.7990	0.0192	55.4274
Unmitigated	32.7092	0.7991	0.0192	55.4398

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0.065154 / 0.0410754	0.1141	2.1300e-003	5.0000e-005	0.1748
Unrefrigerated Warehouse-No Rail	24.4061 / 0	32.5951	0.7970	0.0191	55.2650
Total		**32.7092**	**0.7991**	**0.0192**	**55.4398**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0.065154 / 0.0410754	0.1141	2.1300e-003	5.0000e-005	0.1747
Unrefrigerated Warehouse-No Rail	24.4061 / 0	32.5951	0.7969	0.0191	55.2527
Total		**32.7092**	**0.7990**	**0.0192**	**55.4274**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	20.3945	1.2053	0.0000	45.7054
Unmitigated	20.3945	1.2053	0.0000	45.7054

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.26	0.2558	0.0151	0.0000	0.5732
Unrefrigerated Warehouse-No Rail	99.21	20.1387	1.1902	0.0000	45.1322
Total		**20.3945**	**1.2053**	**0.0000**	**45.7054**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.26	0.2558	0.0151	0.0000	0.5732
Unrefrigerated Warehouse-No Rail	99.21	20.1387	1.1902	0.0000	45.1322
Total		**20.3945**	**1.2053**	**0.0000**	**45.7054**

9.0 Operational Offroad

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

10.0 Vegetation

Acorn Self Storage

Bay Area AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	105.54	1000sqft	2.42	105,537.00	0
Parking Lot	7.00	Space	0.06	2,700.00	0
Single Family Housing	1.00	Dwelling Unit	0.32	1,800.00	3

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2018
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	414.88	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 intensity factor adjusted based on PG&E's anticipated progress towards statewide RPS goals

Land Use - Site Plan

Construction Phase - based on information provided by applicant

Trips and VMT - based on information provided by applicant

Grading - based on information from applicant

Vehicle Trips - ITE Generation Rates Mini-Warehouse

Energy Use - Applicant Information

Construction Off-road Equipment Mitigation - Information from Applicant

Mobile Land Use Mitigation -

Energy Mitigation - Applicant Information

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
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	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	10.00	131.00
tblConstructionPhase	NumDays	220.00	131.00
tblConstructionPhase	NumDays	6.00	67.00
tblConstructionPhase	NumDays	10.00	132.00
tblConstructionPhase	NumDays	3.00	5.00
tblConstructionPhase	PhaseEndDate	12/17/2018	6/29/2018
tblConstructionPhase	PhaseStartDate	6/16/2018	12/29/2017
tblGrading	AcresOfGrading	33.50	6.00
tblGrading	AcresOfGrading	7.50	0.00
tblGrading	MaterialImported	0.00	5,333.00
tblLandUse	LandUseSquareFeet	2,800.00	2,700.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	414.88
tblProjectCharacteristics	OperationalYear	2014	2018

tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblVehicleTrips	ST_TR	2.59	2.50
tblVehicleTrips	ST_TR	10.08	9.52
tblVehicleTrips	SU_TR	2.59	2.50
tblVehicleTrips	SU_TR	8.77	9.52
tblVehicleTrips	WD_TR	2.59	2.50
tblVehicleTrips	WD_TR	9.57	9.52

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					
2017	23.1587	28.6578	22.8357	0.0385	6.2249	1.6626	7.7820	3.3481	1.5981	4.7806	0.0000	3,555.2511	3,555.2511	0.7511	0.0000	3,571.0240
2018	22.6581	24.1978	21.7810	0.0385	0.6383	1.4269	2.0653	0.1717	1.3731	1.5448	0.0000	3,511.0900	3,511.0900	0.5510	0.0000	3,522.6608
Total	**45.8169**	**52.8556**	**44.6167**	**0.0770**	**6.8632**	**3.0895**	**9.8472**	**3.5198**	**2.9712**	**6.3254**	**0.0000**	**7,066.3410**	**7,066.3410**	**1.3021**	**0.0000**	**7,093.6847**

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					
2017	20.5569	24.0955	21.8924	0.0385	6.2249	0.9378	6.7590	3.3481	0.9356	3.8820	0.0000	3,555.2511	3,555.2511	0.7511	0.0000	3,571.0240
2018	20.5171	23.9247	21.4371	0.0385	0.6383	0.9359	1.5742	0.1717	0.9339	1.1056	0.0000	3,511.0900	3,511.0900	0.5510	0.0000	3,522.6608
Total	**41.0739**	**48.0203**	**43.3295**	**0.0770**	**6.8632**	**1.8737**	**8.3332**	**3.5198**	**1.8695**	**4.9877**	**0.0000**	**7,066.3410**	**7,066.3410**	**1.3021**	**0.0000**	**7,093.6847**

	ROG	NOx	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	**10.35**	**9.15**	**2.88**	**0.00**	**0.00**	**39.35**	**15.37**	**0.00**	**37.08**	**21.15**	**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	4.6587	0.0275	2.5126	8.3000e-004		0.3392	0.3392		0.3392	0.3392	35.2335	13.7614	48.9950	0.0290	2.8200e-003	50.4778
Energy	0.0124	0.1124	0.0907	6.8000e-004		8.5800e-003	8.5800e-003		8.5800e-003	8.5800e-003		135.5336	135.5336	2.6000e-003	2.4800e-003	136.3584
Mobile	0.9223	2.2102	9.6602	0.0244	1.6810	0.0323	1.7133	0.4497	0.0297	0.4794		2,003.1918	2,003.1918	0.0740		2,004.7451
Total	**5.5934**	**2.3500**	**12.2636**	**0.0259**	**1.6810**	**0.3800**	**2.0611**	**0.4497**	**0.3775**	**0.8272**	**35.2335**	**2,152.4868**	**2,187.7204**	**0.1056**	**5.3000e-003**	**2,191.5813**

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	2.6696	1.0700e-003	0.0949	1.0000e-005		2.1400e-003	2.1400e-003		2.1200e-003	2.1200e-003	0.0000	26.1144	26.1144	7.1000e-004	4.8000e-004	26.2767
Energy	8.8100e-003	0.0797	0.0642	4.8000e-004		6.0900e-003	6.0900e-003		6.0900e-003	6.0900e-003		96.1562	96.1562	1.8400e-003	1.7600e-003	96.7413
Mobile	0.9223	2.2102	9.6602	0.0244	1.6810	0.0323	1.7133	0.4497	0.0297	0.4794		2,003.1918	2,003.1918	0.0740		2,004.7451
Total	**3.6007**	**2.2910**	**9.8193**	**0.0249**	**1.6810**	**0.0405**	**1.7215**	**0.4497**	**0.0379**	**0.4876**	**0.0000**	**2,125.4623**	**2,125.4623**	**0.0765**	**2.2400e-003**	**2,127.7632**

	ROG	NOx	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	**35.63**	**2.51**	**19.93**	**3.94**	**0.00**	**89.34**	**16.47**	**0.00**	**89.95**	**41.05**	**100.00**	**1.26**	**2.85**	**27.50**	**57.74**	**2.91**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/6/2017	3/10/2017	5	5	
2	Grading	Grading	3/11/2017	6/13/2017	5	67	
3	Paving	Paving	6/14/2017	12/14/2017	5	132	
4	Building Construction	Building Construction	12/15/2017	6/15/2018	5	131	
5	Architectural Coating	Architectural Coating	12/29/2017	6/29/2018	5	131	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 6

Acres of Paving: 0

Residential Indoor: 3,645; Residential Outdoor: 1,215; Non-Residential Indoor: 158,427; Non-Residential Outdoor: 52,809 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Scrapers	1	8.00	361	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
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
Site Preparation	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	667.00	12.40	7.30	0.50	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	46.00	18.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	9.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Clean Paved Roads

3.2 Site Preparation - 2017

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
Off-Road	2.5289	28.6230	17.1310	0.0238		1.3967	1.3967		1.2850	1.2850		2,439.4360	2,439.4360	0.7474		2,455.1322
Total	**2.5289**	**28.6230**	**17.1310**	**0.0238**	**0.0000**	**1.3967**	**1.3967**	**0.0000**	**1.2850**	**1.2850**		**2,439.4360**	**2,439.4360**	**0.7474**		**2,455.1322**

3.2 Site Preparation - 2017

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	0.0290	0.0348	0.4059	9.3000e-004	0.0754	5.8000e-004	0.0760	0.0200	5.3000e-004	0.0205		75.0164	75.0164	3.6500e-003		75.0931
Total	**0.0290**	**0.0348**	**0.4059**	**9.3000e-004**	**0.0754**	**5.8000e-004**	**0.0760**	**0.0200**	**5.3000e-004**	**0.0205**		**75.0164**	**75.0164**	**3.6500e-003**		**75.0931**

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
Off-Road	0.7332	19.4604	14.6507	0.0238		0.5363	0.5363		0.5363	0.5363	0.0000	2,439.4360	2,439.4360	0.7474		2,455.1322
Total	**0.7332**	**19.4604**	**14.6507**	**0.0238**	**0.0000**	**0.5363**	**0.5363**	**0.0000**	**0.5363**	**0.5363**	**0.0000**	**2,439.4360**	**2,439.4360**	**0.7474**		**2,455.1322**

3.2 Site Preparation - 2017

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	0.0290	0.0348	0.4059	9.3000e-004	0.0754	5.8000e-004	0.0760	0.0200	5.3000e-004	0.0205		75.0164	75.0164	3.6500e-003		75.0931
Total	**0.0290**	**0.0348**	**0.4059**	**9.3000e-004**	**0.0754**	**5.8000e-004**	**0.0760**	**0.0200**	**5.3000e-004**	**0.0205**		**75.0164**	**75.0164**	**3.6500e-003**		**75.0931**

3.3 Grading - 2017

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					6.1261	0.0000	6.1261	3.3219	0.0000	3.3219			0.0000			0.0000
Off-Road	2.6973	28.1608	18.9679	0.0206		1.5550	1.5550		1.4306	1.4306		2,104.5737	2,104.5737	0.6448		2,118.1153
Total	**2.6973**	**28.1608**	**18.9679**	**0.0206**	**6.1261**	**1.5550**	**7.6811**	**3.3219**	**1.4306**	**4.7525**		**2,104.5737**	**2,104.5737**	**0.6448**		**2,118.1153**

3.3 Grading - 2017

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	0.0930	0.2691	1.3410	3.8000e-004	4.5400e-003	1.3300e-003	5.8700e-003	1.2600e-003	1.2100e-003	2.4700e-003		36.0447	36.0447	6.4000e-004		36.0581
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	0.0362	0.0435	0.5074	1.1600e-003	0.0943	7.2000e-004	0.0950	0.0250	6.7000e-004	0.0257		93.7705	93.7705	4.5700e-003		93.8664
Total	**0.1293**	**0.3125**	**1.8484**	**1.5400e-003**	**0.0988**	**2.0500e-003**	**0.1009**	**0.0263**	**1.8800e-003**	**0.0282**		**129.8152**	**129.8152**	**5.2100e-003**		**129.9245**

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					6.1261	0.0000	6.1261	3.3219	0.0000	3.3219			0.0000			0.0000
Off-Road	0.7097	17.9743	13.4314	0.0206		0.5321	0.5321		0.5321	0.5321	0.0000	2,104.5737	2,104.5737	0.6448		2,118.1153
Total	**0.7097**	**17.9743**	**13.4314**	**0.0206**	**6.1261**	**0.5321**	**6.6581**	**3.3219**	**0.5321**	**3.8539**	**0.0000**	**2,104.5737**	**2,104.5737**	**0.6448**		**2,118.1153**

3.3 Grading - 2017

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	0.0930	0.2691	1.3410	3.8000e-004	4.5400e-003	1.3300e-003	5.8700e-003	1.2600e-003	1.2100e-003	2.4700e-003		36.0447	36.0447	6.4000e-004		36.0581
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	0.0362	0.0435	0.5074	1.1600e-003	0.0943	7.2000e-004	0.0950	0.0250	6.7000e-004	0.0257		93.7705	93.7705	4.5700e-003		93.8664
Total	**0.1293**	**0.3125**	**1.8484**	**1.5400e-003**	**0.0988**	**2.0500e-003**	**0.1009**	**0.0263**	**1.8800e-003**	**0.0282**		**129.8152**	**129.8152**	**5.2100e-003**		**129.9245**

3.4 Paving - 2017

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	1.6402	16.4619	12.0566	0.0176		1.0230	1.0230		0.9423	0.9423		1,777.4745	1,777.4745	0.5344		1,788.6966
Paving	1.1900e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6413**	**16.4619**	**12.0566**	**0.0176**		**1.0230**	**1.0230**		**0.9423**	**0.9423**		**1,777.4745**	**1,777.4745**	**0.5344**		**1,788.6966**

3.4 Paving - 2017

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	0.0543	0.0652	0.7611	1.7400e-003	0.1415	1.0800e-003	0.1425	0.0375	1.0000e-003	0.0385		140.6558	140.6558	6.8500e-003		140.7996
Total	**0.0543**	**0.0652**	**0.7611**	**1.7400e-003**	**0.1415**	**1.0800e-003**	**0.1425**	**0.0375**	**1.0000e-003**	**0.0385**		**140.6558**	**140.6558**	**6.8500e-003**		**140.7996**

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	0.7250	15.4034	12.7897	0.0176		0.5516	0.5516		0.5516	0.5516	0.0000	1,777.4745	1,777.4745	0.5344		1,788.6966
Paving	1.1900e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7262**	**15.4034**	**12.7897**	**0.0176**		**0.5516**	**0.5516**		**0.5516**	**0.5516**	**0.0000**	**1,777.4745**	**1,777.4745**	**0.5344**		**1,788.6966**

3.4 Paving - 2017

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	0.0543	0.0652	0.7611	1.7400e-003	0.1415	1.0800e-003	0.1425	0.0375	1.0000e-003	0.0385		140.6558	140.6558	6.8500e-003		140.7996
Total	**0.0543**	**0.0652**	**0.7611**	**1.7400e-003**	**0.1415**	**1.0800e-003**	**0.1425**	**0.0375**	**1.0000e-003**	**0.0385**		**140.6558**	**140.6558**	**6.8500e-003**		**140.7996**

3.5 Building Construction - 2017

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	3.3275	22.8585	16.2492	0.0249		1.4621	1.4621		1.3998	1.3998		2,334.8503	2,334.8503	0.5189		2,345.7479
Total	**3.3275**	**22.8585**	**16.2492**	**0.0249**		**1.4621**	**1.4621**		**1.3998**	**1.3998**		**2,334.8503**	**2,334.8503**	**0.5189**		**2,345.7479**

3.5 Building Construction - 2017

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	0.1851	1.5637	1.9278	4.2900e-003	0.1197	0.0232	0.1429	0.0342	0.0213	0.0555		423.2149	423.2149	3.2300e-003		423.2828
Worker	0.1667	0.2000	2.3339	5.3400e-003	0.4338	3.3200e-003	0.4371	0.1151	3.0600e-003	0.1181		431.3444	431.3444	0.0210		431.7854
Total	**0.3517**	**1.7637**	**4.2618**	**9.6300e-003**	**0.5535**	**0.0265**	**0.5800**	**0.1492**	**0.0244**	**0.1736**		**854.5592**	**854.5592**	**0.0242**		**855.0682**

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	0.9440	19.9403	15.3416	0.0249		0.8155	0.8155		0.8155	0.8155	0.0000	2,334.8503	2,334.8503	0.5189		2,345.7479
Total	**0.9440**	**19.9403**	**15.3416**	**0.0249**		**0.8155**	**0.8155**		**0.8155**	**0.8155**	**0.0000**	**2,334.8503**	**2,334.8503**	**0.5189**		**2,345.7479**

3.5 Building Construction - 2017

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	0.1851	1.5637	1.9278	4.2900e-003	0.1197	0.0232	0.1429	0.0342	0.0213	0.0555		423.2149	423.2149	3.2300e-003		423.2828
Worker	0.1667	0.2000	2.3339	5.3400e-003	0.4338	3.3200e-003	0.4371	0.1151	3.0600e-003	0.1181		431.3444	431.3444	0.0210		431.7854
Total	**0.3517**	**1.7637**	**4.2618**	**9.6300e-003**	**0.5535**	**0.0265**	**0.5800**	**0.1492**	**0.0244**	**0.1736**		**854.5592**	**854.5592**	**0.0242**		**855.0682**

3.5 Building Construction - 2018

Unmitigated Construction On-Site

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

3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1656	1.4167	1.7547	4.2800e-003	0.1197	0.0215	0.1411	0.0342	0.0197	0.0539		415.7821	415.7821	3.1800e-003		415.8488
Worker	0.1496	0.1801	2.0979	5.3400e-003	0.4338	3.2100e-003	0.4370	0.1151	2.9700e-003	0.1180		415.3804	415.3804	0.0193		415.7860
Total	**0.3153**	**1.5968**	**3.8526**	**9.6200e-003**	**0.5534**	**0.0247**	**0.5781**	**0.1492**	**0.0227**	**0.1719**		**831.1625**	**831.1625**	**0.0225**		**831.6347**

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	0.9440	19.9403	15.3416	0.0249		0.8155	0.8155		0.8155	0.8155	0.0000	2,317.2089	2,317.2089	0.4980		2,327.6664
Total	**0.9440**	**19.9403**	**15.3416**	**0.0249**		**0.8155**	**0.8155**		**0.8155**	**0.8155**	**0.0000**	**2,317.2089**	**2,317.2089**	**0.4980**		**2,327.6664**

3.5 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1656	1.4167	1.7547	4.2800e-003	0.1197	0.0215	0.1411	0.0342	0.0197	0.0539		415.7821	415.7821	3.1800e-003		415.8488
Worker	0.1496	0.1801	2.0979	5.3400e-003	0.4338	3.2100e-003	0.4370	0.1151	2.9700e-003	0.1180		415.3804	415.3804	0.0193		415.7860
Total	**0.3153**	**1.5968**	**3.8526**	**9.6200e-003**	**0.5534**	**0.0247**	**0.5781**	**0.1492**	**0.0227**	**0.1719**		**831.1625**	**831.1625**	**0.0225**		**831.6347**

3.6 Architectural Coating - 2017

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	19.1146					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	**19.4469**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.0721**

3.6 Architectural Coating - 2017

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	0.0326	0.0391	0.4566	1.0400e-003	0.0849	6.5000e-004	0.0855	0.0225	6.0000e-004	0.0231		84.3935	84.3935	4.1100e-003		84.4798
Total	**0.0326**	**0.0391**	**0.4566**	**1.0400e-003**	**0.0849**	**6.5000e-004**	**0.0855**	**0.0225**	**6.0000e-004**	**0.0231**		**84.3935**	**84.3935**	**4.1100e-003**		**84.4798**

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	19.1146					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	0.0297		282.0721
Total	**19.2285**	**2.3524**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.0721**

3.6 Architectural Coating - 2017

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	0.0326	0.0391	0.4566	1.0400e-003	0.0849	6.5000e-004	0.0855	0.0225	6.0000e-004	0.0231		84.3935	84.3935	4.1100e-003		84.4798
Total	**0.0326**	**0.0391**	**0.4566**	**1.0400e-003**	**0.0849**	**6.5000e-004**	**0.0855**	**0.0225**	**6.0000e-004**	**0.0231**		**84.3935**	**84.3935**	**4.1100e-003**		**84.4798**

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	19.1146					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102
Total	**19.4132**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.0102**

3.6 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0293	0.0352	0.4105	1.0400e-003	0.0849	6.3000e-004	0.0855	0.0225	5.8000e-004	0.0231		81.2701	81.2701	3.7800e-003		81.3494
Total	**0.0293**	**0.0352**	**0.4105**	**1.0400e-003**	**0.0849**	**6.3000e-004**	**0.0855**	**0.0225**	**5.8000e-004**	**0.0231**		**81.2701**	**81.2701**	**3.7800e-003**		**81.3494**

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	19.1146					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	281.4485	281.4485	0.0267		282.0102
Total	**19.2285**	**2.3524**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.0102**

3.6 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0293	0.0352	0.4105	1.0400e-003	0.0849	6.3000e-004	0.0855	0.0225	5.8000e-004	0.0231		81.2701	81.2701	3.7800e-003		81.3494
Total	**0.0293**	**0.0352**	**0.4105**	**1.0400e-003**	**0.0849**	**6.3000e-004**	**0.0855**	**0.0225**	**5.8000e-004**	**0.0231**		**81.2701**	**81.2701**	**3.7800e-003**		**81.3494**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.9223	2.2102	9.6602	0.0244	1.6810	0.0323	1.7133	0.4497	0.0297	0.4794		2,003.1918	2,003.1918	0.0740		2,004.7451
Unmitigated	0.9223	2.2102	9.6602	0.0244	1.6810	0.0323	1.7133	0.4497	0.0297	0.4794		2,003.1918	2,003.1918	0.0740		2,004.7451

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	263.84	263.84	263.84	770,291	770,291
Single Family Housing	9.52	9.52	9.52	21,252	21,252
Total	273.36	273.36	273.36	791,543	791,543

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
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3
Single Family Housing	12.40	4.30	5.40	26.10	29.10	44.80	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.546229	0.063048	0.174586	0.122573	0.033968	0.004845	0.015596	0.024745	0.002089	0.003270	0.006707	0.000678	0.001667

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	8.8100e-003	0.0797	0.0642	4.8000e-004		6.0900e-003	6.0900e-003		6.0900e-003	6.0900e-003		96.1562	96.1562	1.8400e-003	1.7600e-003	96.7413
NaturalGas Unmitigated	0.0124	0.1124	0.0907	6.8000e-004		8.5800e-003	8.5800e-003		8.5800e-003	8.5800e-003		135.5336	135.5336	2.6000e-003	2.4800e-003	136.3584

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	96.6656	1.0400e-003	8.9100e-003	3.7900e-003	6.0000e-005		7.2000e-004	7.2000e-004		7.2000e-004	7.2000e-004		11.3724	11.3724	2.2000e-004	2.1000e-004	11.4416
Unrefrigerated Warehouse-No Rail	1055.37	0.0114	0.1035	0.0869	6.2000e-004		7.8600e-003	7.8600e-003		7.8600e-003	7.8600e-003		124.1612	124.1612	2.3800e-003	2.2800e-003	124.9168
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		**0.0124**	**0.1124**	**0.0907**	**6.8000e-004**		**8.5800e-003**	**8.5800e-003**		**8.5800e-003**	**8.5800e-003**		**135.5336**	**135.5336**	**2.6000e-003**	**2.4900e-003**	**136.3584**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	0.744831	8.0300e-003	0.0730	0.0613	4.4000e-004		5.5500e-003	5.5500e-003		5.5500e-003	5.5500e-003		87.6272	87.6272	1.6800e-003	1.6100e-003	88.1605
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
Single Family Housing	0.0724962	7.8000e-004	6.6800e-003	2.8400e-003	4.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004		8.5290	8.5290	1.6000e-004	1.6000e-004	8.5809
Total		**8.8100e-003**	**0.0797**	**0.0642**	**4.8000e-004**		**6.0900e-003**	**6.0900e-003**		**6.0900e-003**	**6.0900e-003**		**96.1562**	**96.1562**	**1.8400e-003**	**1.7700e-003**	**96.7413**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.6696	1.0700e-003	0.0949	1.0000e-005		2.1400e-003	2.1400e-003		2.1200e-003	2.1200e-003	0.0000	26.1144	26.1144	7.1000e-004	4.8000e-004	26.2767
Unmitigated	4.6587	0.0275	2.5126	8.3000e-004		0.3392	0.3392		0.3392	0.3392	35.2335	13.7614	48.9950	0.0290	2.8200e-003	50.4778

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	0.3087					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3548					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.9915	0.0264	2.4179	8.3000e-004		0.3387	0.3387		0.3387	0.3387	35.2335	13.5882	48.8218	0.0288	2.8200e-003	50.3001
Landscaping	3.6700e-003	1.0700e-003	0.0947	1.0000e-005		5.0000e-004	5.0000e-004		5.0000e-004	5.0000e-004		0.1732	0.1732	2.1000e-004		0.1777
Total	**4.6586**	**0.0275**	**2.5126**	**8.4000e-004**		**0.3392**	**0.3392**		**0.3392**	**0.3392**	**35.2335**	**13.7614**	**48.9950**	**0.0290**	**2.8200e-003**	**50.4778**

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	0.3087					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3548					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.3800e-003	0.0000	1.3000e-004	0.0000		1.6400e-003	1.6400e-003		1.6300e-003	1.6300e-003	0.0000	25.9412	25.9412	5.0000e-004	4.8000e-004	26.0991
Landscaping	3.6700e-003	1.0700e-003	0.0947	1.0000e-005		5.0000e-004	5.0000e-004		5.0000e-004	5.0000e-004		0.1732	0.1732	2.1000e-004		0.1777
Total	**2.6696**	**1.0700e-003**	**0.0949**	**1.0000e-005**		**2.1400e-003**	**2.1400e-003**		**2.1300e-003**	**2.1300e-003**	**0.0000**	**26.1144**	**26.1144**	**7.1000e-004**	**4.8000e-004**	**26.2767**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

Acorn Self Storage

Bay Area AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	105.54	1000sqft	2.42	105,537.00	0
Parking Lot	7.00	Space	0.06	2,700.00	0
Single Family Housing	1.00	Dwelling Unit	0.32	1,800.00	3

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2018
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	414.88	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 intensity factor adjusted based on PG&E's anticipated progress towards statewide RPS goals

Land Use - Site Plan

Construction Phase - based on information provided by applicant

Trips and VMT - based on information provided by applicant

Grading - based on information from applicant

Vehicle Trips - ITE Generation Rates Mini-Warehouse

Energy Use - Applicant Information

Construction Off-road Equipment Mitigation - Information from Applicant

Mobile Land Use Mitigation -

Energy Mitigation - Applicant Information

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
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	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	10.00	131.00
tblConstructionPhase	NumDays	220.00	131.00
tblConstructionPhase	NumDays	6.00	67.00
tblConstructionPhase	NumDays	10.00	132.00
tblConstructionPhase	NumDays	3.00	5.00
tblConstructionPhase	PhaseEndDate	12/17/2018	6/29/2018
tblConstructionPhase	PhaseStartDate	6/16/2018	12/29/2017
tblGrading	AcresOfGrading	33.50	6.00
tblGrading	AcresOfGrading	7.50	0.00
tblGrading	MaterialImported	0.00	5,333.00
tblLandUse	LandUseSquareFeet	2,800.00	2,700.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	414.88
tblProjectCharacteristics	OperationalYear	2014	2018

tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblVehicleTrips	ST_TR	2.59	2.50
tblVehicleTrips	ST_TR	10.08	9.52
tblVehicleTrips	SU_TR	2.59	2.50
tblVehicleTrips	SU_TR	8.77	9.52
tblVehicleTrips	WD_TR	2.59	2.50
tblVehicleTrips	WD_TR	9.57	9.52

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					
2017	23.2060	28.6660	23.8796	0.0380	6.2249	1.6628	7.7821	3.3481	1.5983	4.7807	0.0000	3,512.0704	3,512.0704	0.7511	0.0000	3,527.8433
2018	22.6954	24.3145	22.8042	0.0380	0.6383	1.4272	2.0655	0.1717	1.3733	1.5450	0.0000	3,469.3877	3,469.3877	0.5511	0.0000	3,480.9603
Total	**45.9013**	**52.9805**	**46.6839**	**0.0760**	**6.8632**	**3.0900**	**9.8475**	**3.5198**	**2.9716**	**6.3257**	**0.0000**	**6,981.4581**	**6,981.4581**	**1.3022**	**0.0000**	**7,008.8036**

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					
2017	20.6041	24.2252	22.9364	0.0380	6.2249	0.9380	6.7591	3.3481	0.9358	3.8821	0.0000	3,512.0704	3,512.0704	0.7511	0.0000	3,527.8433
2018	20.5543	24.0414	22.4604	0.0380	0.6383	0.9361	1.5744	0.1717	0.9341	1.1058	0.0000	3,469.3877	3,469.3877	0.5511	0.0000	3,480.9603
Total	**41.1584**	**48.2666**	**45.3968**	**0.0760**	**6.8632**	**1.8741**	**8.3335**	**3.5198**	**1.8699**	**4.9879**	**0.0000**	**6,981.4581**	**6,981.4581**	**1.3022**	**0.0000**	**7,008.8036**

	ROG	NOx	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	**10.33**	**8.90**	**2.76**	**0.00**	**0.00**	**39.35**	**15.37**	**0.00**	**37.07**	**21.15**	**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	4.6587	0.0275	2.5126	8.3000e-004		0.3392	0.3392		0.3392	0.3392	35.2335	13.7614	48.9950	0.0290	2.8200e-003	50.4778
Energy	0.0124	0.1124	0.0907	6.8000e-004		8.5800e-003	8.5800e-003		8.5800e-003	8.5800e-003		135.5336	135.5336	2.6000e-003	2.4800e-003	136.3584
Mobile	0.9627	2.4554	10.7002	0.0229	1.6810	0.0324	1.7134	0.4497	0.0299	0.4795		1,883.8383	1,883.8383	0.0740		1,885.3929
Total	**5.6338**	**2.5953**	**13.3035**	**0.0244**	**1.6810**	**0.3802**	**2.0612**	**0.4497**	**0.3776**	**0.8273**	**35.2335**	**2,033.1333**	**2,068.3668**	**0.1056**	**5.3000e-003**	**2,072.2291**

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	2.6696	1.0700e-003	0.0949	1.0000e-005		2.1400e-003	2.1400e-003		2.1200e-003	2.1200e-003	0.0000	26.1144	26.1144	7.1000e-004	4.8000e-004	26.2767
Energy	8.8100e-003	0.0797	0.0642	4.8000e-004		6.0900e-003	6.0900e-003		6.0900e-003	6.0900e-003		96.1562	96.1562	1.8400e-003	1.7600e-003	96.7413
Mobile	0.9627	2.4554	10.7002	0.0229	1.6810	0.0324	1.7134	0.4497	0.0299	0.4795		1,883.8383	1,883.8383	0.0740		1,885.3929
Total	**3.6411**	**2.5362**	**10.8592**	**0.0234**	**1.6810**	**0.0406**	**1.7217**	**0.4497**	**0.0381**	**0.4878**	**0.0000**	**2,006.1088**	**2,006.1088**	**0.0766**	**2.2400e-003**	**2,008.4110**

	ROG	NOx	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	35.37	2.28	18.37	4.18	0.00	89.31	16.47	0.00	89.92	41.04	100.00	1.33	3.01	27.49	57.74	3.08

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/6/2017	3/10/2017	5	5	
2	Grading	Grading	3/11/2017	6/13/2017	5	67	
3	Paving	Paving	6/14/2017	12/14/2017	5	132	
4	Building Construction	Building Construction	12/15/2017	6/15/2018	5	131	
5	Architectural Coating	Architectural Coating	12/29/2017	6/29/2018	5	131	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 6

Acres of Paving: 0

Residential Indoor: 3,645; Residential Outdoor: 1,215; Non-Residential Indoor: 158,427; Non-Residential Outdoor: 52,809 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Scrapers	1	8.00	361	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
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
Site Preparation	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	667.00	12.40	7.30	0.50	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	46.00	18.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	9.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Clean Paved Roads

3.2 Site Preparation - 2017

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
Off-Road	2.5289	28.6230	17.1310	0.0238		1.3967	1.3967		1.2850	1.2850		2,439.4360	2,439.4360	0.7474		2,455.1322
Total	**2.5289**	**28.6230**	**17.1310**	**0.0238**	**0.0000**	**1.3967**	**1.3967**	**0.0000**	**1.2850**	**1.2850**		**2,439.4360**	**2,439.4360**	**0.7474**		**2,455.1322**

3.2 Site Preparation - 2017

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	0.0289	0.0431	0.3932	8.6000e-004	0.0754	5.8000e-004	0.0760	0.0200	5.3000e-004	0.0205		69.2078	69.2078	3.6500e-003		69.2845
Total	**0.0289**	**0.0431**	**0.3932**	**8.6000e-004**	**0.0754**	**5.8000e-004**	**0.0760**	**0.0200**	**5.3000e-004**	**0.0205**		**69.2078**	**69.2078**	**3.6500e-003**		**69.2845**

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
Off-Road	0.7332	19.4604	14.6507	0.0238		0.5363	0.5363		0.5363	0.5363	0.0000	2,439.4360	2,439.4360	0.7474		2,455.1322
Total	**0.7332**	**19.4604**	**14.6507**	**0.0238**	**0.0000**	**0.5363**	**0.5363**	**0.0000**	**0.5363**	**0.5363**	**0.0000**	**2,439.4360**	**2,439.4360**	**0.7474**		**2,455.1322**

3.2 Site Preparation - 2017

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	0.0289	0.0431	0.3932	8.6000e-004	0.0754	5.8000e-004	0.0760	0.0200	5.3000e-004	0.0205		69.2078	69.2078	3.6500e-003		69.2845
Total	**0.0289**	**0.0431**	**0.3932**	**8.6000e-004**	**0.0754**	**5.8000e-004**	**0.0760**	**0.0200**	**5.3000e-004**	**0.0205**		**69.2078**	**69.2078**	**3.6500e-003**		**69.2845**

3.3 Grading - 2017

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					6.1261	0.0000	6.1261	3.3219	0.0000	3.3219			0.0000			0.0000
Off-Road	2.6973	28.1608	18.9679	0.0206		1.5550	1.5550		1.4306	1.4306		2,104.5737	2,104.5737	0.6448		2,118.1153
Total	**2.6973**	**28.1608**	**18.9679**	**0.0206**	**6.1261**	**1.5550**	**7.6811**	**3.3219**	**1.4306**	**4.7525**		**2,104.5737**	**2,104.5737**	**0.6448**		**2,118.1153**

3.3 Grading - 2017

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	0.1310	0.2777	2.2743	3.8000e-004	4.5400e-003	1.4200e-003	5.9600e-003	1.2600e-003	1.2900e-003	2.5500e-003		34.3126	34.3126	7.1000e-004		34.3275
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	0.0361	0.0538	0.4915	1.0700e-003	0.0943	7.2000e-004	0.0950	0.0250	6.7000e-004	0.0257		86.5098	86.5098	4.5700e-003		86.6057
Total	**0.1671**	**0.3315**	**2.7658**	**1.4500e-003**	**0.0988**	**2.1400e-003**	**0.1010**	**0.0263**	**1.9600e-003**	**0.0282**		**120.8224**	**120.8224**	**5.2800e-003**		**120.9331**

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					6.1261	0.0000	6.1261	3.3219	0.0000	3.3219			0.0000			0.0000
Off-Road	0.7097	17.9743	13.4314	0.0206		0.5321	0.5321		0.5321	0.5321	0.0000	2,104.5737	2,104.5737	0.6448		2,118.1153
Total	**0.7097**	**17.9743**	**13.4314**	**0.0206**	**6.1261**	**0.5321**	**6.6581**	**3.3219**	**0.5321**	**3.8539**	**0.0000**	**2,104.5737**	**2,104.5737**	**0.6448**		**2,118.1153**

3.3 Grading - 2017

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	0.1310	0.2777	2.2743	3.8000e-004	4.5400e-003	1.4200e-003	5.9600e-003	1.2600e-003	1.2900e-003	2.5500e-003		34.3126	34.3126	7.1000e-004		34.3275
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	0.0361	0.0538	0.4915	1.0700e-003	0.0943	7.2000e-004	0.0950	0.0250	6.7000e-004	0.0257		86.5098	86.5098	4.5700e-003		86.6057
Total	**0.1671**	**0.3315**	**2.7658**	**1.4500e-003**	**0.0988**	**2.1400e-003**	**0.1010**	**0.0263**	**1.9600e-003**	**0.0282**		**120.8224**	**120.8224**	**5.2800e-003**		**120.9331**

3.4 Paving - 2017

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	1.6402	16.4619	12.0566	0.0176		1.0230	1.0230		0.9423	0.9423		1,777.4745	1,777.4745	0.5344		1,788.6966
Paving	1.1900e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6413**	**16.4619**	**12.0566**	**0.0176**		**1.0230**	**1.0230**		**0.9423**	**0.9423**		**1,777.4745**	**1,777.4745**	**0.5344**		**1,788.6966**

3.4 Paving - 2017

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	0.0542	0.0807	0.7373	1.6100e-003	0.1415	1.0800e-003	0.1425	0.0375	1.0000e-003	0.0385		129.7647	129.7647	6.8500e-003		129.9085
Total	**0.0542**	**0.0807**	**0.7373**	**1.6100e-003**	**0.1415**	**1.0800e-003**	**0.1425**	**0.0375**	**1.0000e-003**	**0.0385**		**129.7647**	**129.7647**	**6.8500e-003**		**129.9085**

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	0.7250	15.4034	12.7897	0.0176		0.5516	0.5516		0.5516	0.5516	0.0000	1,777.4745	1,777.4745	0.5344		1,788.6966
Paving	1.1900e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7262**	**15.4034**	**12.7897**	**0.0176**		**0.5516**	**0.5516**		**0.5516**	**0.5516**	**0.0000**	**1,777.4745**	**1,777.4745**	**0.5344**		**1,788.6966**

3.4 Paving - 2017

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	0.0542	0.0807	0.7373	1.6100e-003	0.1415	1.0800e-003	0.1425	0.0375	1.0000e-003	0.0385		129.7647	129.7647	6.8500e-003		129.9085
Total	**0.0542**	**0.0807**	**0.7373**	**1.6100e-003**	**0.1415**	**1.0800e-003**	**0.1425**	**0.0375**	**1.0000e-003**	**0.0385**		**129.7647**	**129.7647**	**6.8500e-003**		**129.9085**

3.5 Building Construction - 2017

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	3.3275	22.8585	16.2492	0.0249		1.4621	1.4621		1.3998	1.3998		2,334.8503	2,334.8503	0.5189		2,345.7479
Total	**3.3275**	**22.8585**	**16.2492**	**0.0249**		**1.4621**	**1.4621**		**1.3998**	**1.3998**		**2,334.8503**	**2,334.8503**	**0.5189**		**2,345.7479**

3.5 Building Construction - 2017

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	0.2330	1.6365	3.0589	4.2700e-003	0.1197	0.0234	0.1431	0.0342	0.0215	0.0557		419.9683	419.9683	3.3200e-003		420.0380
Worker	0.1661	0.2476	2.2611	4.9200e-003	0.4338	3.3200e-003	0.4371	0.1151	3.0600e-003	0.1181		397.9450	397.9450	0.0210		398.3860
Total	**0.3991**	**1.8841**	**5.3200**	**9.1900e-003**	**0.5535**	**0.0267**	**0.5802**	**0.1492**	**0.0246**	**0.1738**		**817.9133**	**817.9133**	**0.0243**		**818.4240**

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	0.9440	19.9403	15.3416	0.0249		0.8155	0.8155		0.8155	0.8155	0.0000	2,334.8503	2,334.8503	0.5189		2,345.7479
Total	**0.9440**	**19.9403**	**15.3416**	**0.0249**		**0.8155**	**0.8155**		**0.8155**	**0.8155**	**0.0000**	**2,334.8503**	**2,334.8503**	**0.5189**		**2,345.7479**

3.5 Building Construction - 2017

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	0.2330	1.6365	3.0589	4.2700e-003	0.1197	0.0234	0.1431	0.0342	0.0215	0.0557		419.9683	419.9683	3.3200e-003		420.0380
Worker	0.1661	0.2476	2.2611	4.9200e-003	0.4338	3.3200e-003	0.4371	0.1151	3.0600e-003	0.1181		397.9450	397.9450	0.0210		398.3860
Total	**0.3991**	**1.8841**	**5.3200**	**9.1900e-003**	**0.5535**	**0.0267**	**0.5802**	**0.1492**	**0.0246**	**0.1738**		**817.9133**	**817.9133**	**0.0243**		**818.4240**

3.5 Building Construction - 2018

Unmitigated Construction On-Site

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

3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2051	1.4821	2.8778	4.2600e-003	0.1197	0.0217	0.1413	0.0342	0.0199	0.0541		412.5834	412.5834	3.2600e-003		412.6519
Worker	0.1478	0.2230	2.0144	4.9200e-003	0.4338	3.2100e-003	0.4370	0.1151	2.9700e-003	0.1180		383.1774	383.1774	0.0193		383.5830
Total	**0.3528**	**1.7051**	**4.8922**	**9.1800e-003**	**0.5534**	**0.0249**	**0.5783**	**0.1492**	**0.0229**	**0.1721**		**795.7608**	**795.7608**	**0.0226**		**796.2349**

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	0.9440	19.9403	15.3416	0.0249		0.8155	0.8155		0.8155	0.8155	0.0000	2,317.2089	2,317.2089	0.4980		2,327.6664
Total	**0.9440**	**19.9403**	**15.3416**	**0.0249**		**0.8155**	**0.8155**		**0.8155**	**0.8155**	**0.0000**	**2,317.2089**	**2,317.2089**	**0.4980**		**2,327.6664**

3.5 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2051	1.4821	2.8778	4.2600e-003	0.1197	0.0217	0.1413	0.0342	0.0199	0.0541		412.5834	412.5834	3.2600e-003		412.6519
Worker	0.1478	0.2230	2.0144	4.9200e-003	0.4338	3.2100e-003	0.4370	0.1151	2.9700e-003	0.1180		383.1774	383.1774	0.0193		383.5830
Total	**0.3528**	**1.7051**	**4.8922**	**9.1800e-003**	**0.5534**	**0.0249**	**0.5783**	**0.1492**	**0.0229**	**0.1721**		**795.7608**	**795.7608**	**0.0226**		**796.2349**

3.6 Architectural Coating - 2017

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	19.1146					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	**19.4469**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.0721**

3.6 Architectural Coating - 2017

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	0.0325	0.0484	0.4424	9.6000e-004	0.0849	6.5000e-004	0.0855	0.0225	6.0000e-004	0.0231		77.8588	77.8588	4.1100e-003		77.9451
Total	**0.0325**	**0.0484**	**0.4424**	**9.6000e-004**	**0.0849**	**6.5000e-004**	**0.0855**	**0.0225**	**6.0000e-004**	**0.0231**		**77.8588**	**77.8588**	**4.1100e-003**		**77.9451**

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	19.1146					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	0.0297		282.0721
Total	**19.2285**	**2.3524**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.0721**

3.6 Architectural Coating - 2017

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	0.0325	0.0484	0.4424	9.6000e-004	0.0849	6.5000e-004	0.0855	0.0225	6.0000e-004	0.0231		77.8588	77.8588	4.1100e-003		77.9451
Total	**0.0325**	**0.0484**	**0.4424**	**9.6000e-004**	**0.0849**	**6.5000e-004**	**0.0855**	**0.0225**	**6.0000e-004**	**0.0231**		**77.8588**	**77.8588**	**4.1100e-003**		**77.9451**

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	19.1146					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102
Total	**19.4132**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.0102**

3.6 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0289	0.0436	0.3941	9.6000e-004	0.0849	6.3000e-004	0.0855	0.0225	5.8000e-004	0.0231		74.9695	74.9695	3.7800e-003		75.0488
Total	**0.0289**	**0.0436**	**0.3941**	**9.6000e-004**	**0.0849**	**6.3000e-004**	**0.0855**	**0.0225**	**5.8000e-004**	**0.0231**		**74.9695**	**74.9695**	**3.7800e-003**		**75.0488**

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	19.1146					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	281.4485	281.4485	0.0267		282.0102
Total	**19.2285**	**2.3524**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.0102**

3.6 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0289	0.0436	0.3941	9.6000e-004	0.0849	6.3000e-004	0.0855	0.0225	5.8000e-004	0.0231		74.9695	74.9695	3.7800e-003		75.0488
Total	**0.0289**	**0.0436**	**0.3941**	**9.6000e-004**	**0.0849**	**6.3000e-004**	**0.0855**	**0.0225**	**5.8000e-004**	**0.0231**		**74.9695**	**74.9695**	**3.7800e-003**		**75.0488**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.9627	2.4554	10.7002	0.0229	1.6810	0.0324	1.7134	0.4497	0.0299	0.4795		1,883.8383	1,883.8383	0.0740		1,885.3929
Unmitigated	0.9627	2.4554	10.7002	0.0229	1.6810	0.0324	1.7134	0.4497	0.0299	0.4795		1,883.8383	1,883.8383	0.0740		1,885.3929

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	263.84	263.84	263.84	770,291	770,291
Single Family Housing	9.52	9.52	9.52	21,252	21,252
Total	273.36	273.36	273.36	791,543	791,543

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
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3
Single Family Housing	12.40	4.30	5.40	26.10	29.10	44.80	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.546229	0.063048	0.174586	0.122573	0.033968	0.004845	0.015596	0.024745	0.002089	0.003270	0.006707	0.000678	0.001667

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	8.8100e-003	0.0797	0.0642	4.8000e-004		6.0900e-003	6.0900e-003		6.0900e-003	6.0900e-003		96.1562	96.1562	1.8400e-003	1.7600e-003	96.7413
NaturalGas Unmitigated	0.0124	0.1124	0.0907	6.8000e-004		8.5800e-003	8.5800e-003		8.5800e-003	8.5800e-003		135.5336	135.5336	2.6000e-003	2.4800e-003	136.3584

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	96.6656	1.0400e-003	8.9100e-003	3.7900e-003	6.0000e-005		7.2000e-004	7.2000e-004		7.2000e-004	7.2000e-004		11.3724	11.3724	2.2000e-004	2.1000e-004	11.4416
Unrefrigerated Warehouse-No Rail	1055.37	0.0114	0.1035	0.0869	6.2000e-004		7.8600e-003	7.8600e-003		7.8600e-003	7.8600e-003		124.1612	124.1612	2.3800e-003	2.2800e-003	124.9168
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		**0.0124**	**0.1124**	**0.0907**	**6.8000e-004**		**8.5800e-003**	**8.5800e-003**		**8.5800e-003**	**8.5800e-003**		**135.5336**	**135.5336**	**2.6000e-003**	**2.4900e-003**	**136.3584**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	0.744831	8.0300e-003	0.0730	0.0613	4.4000e-004		5.5500e-003	5.5500e-003		5.5500e-003	5.5500e-003		87.6272	87.6272	1.6800e-003	1.6100e-003	88.1605
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
Single Family Housing	0.0724962	7.8000e-004	6.6800e-003	2.8400e-003	4.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004		8.5290	8.5290	1.6000e-004	1.6000e-004	8.5809
Total		**8.8100e-003**	**0.0797**	**0.0642**	**4.8000e-004**		**6.0900e-003**	**6.0900e-003**		**6.0900e-003**	**6.0900e-003**		**96.1562**	**96.1562**	**1.8400e-003**	**1.7700e-003**	**96.7413**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.6696	1.0700e-003	0.0949	1.0000e-005		2.1400e-003	2.1400e-003		2.1200e-003	2.1200e-003	0.0000	26.1144	26.1144	7.1000e-004	4.8000e-004	26.2767
Unmitigated	4.6587	0.0275	2.5126	8.3000e-004		0.3392	0.3392		0.3392	0.3392	35.2335	13.7614	48.9950	0.0290	2.8200e-003	50.4778

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	0.3087					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3548					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.9915	0.0264	2.4179	8.3000e-004		0.3387	0.3387		0.3387	0.3387	35.2335	13.5882	48.8218	0.0288	2.8200e-003	50.3001
Landscaping	3.6700e-003	1.0700e-003	0.0947	1.0000e-005		5.0000e-004	5.0000e-004		5.0000e-004	5.0000e-004		0.1732	0.1732	2.1000e-004		0.1777
Total	**4.6586**	**0.0275**	**2.5126**	**8.4000e-004**		**0.3392**	**0.3392**		**0.3392**	**0.3392**	**35.2335**	**13.7614**	**48.9950**	**0.0290**	**2.8200e-003**	**50.4778**

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	0.3087					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3548					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.3800e-003	0.0000	1.3000e-004	0.0000		1.6400e-003	1.6400e-003		1.6300e-003	1.6300e-003	0.0000	25.9412	25.9412	5.0000e-004	4.8000e-004	26.0991
Landscaping	3.6700e-003	1.0700e-003	0.0947	1.0000e-005		5.0000e-004	5.0000e-004		5.0000e-004	5.0000e-004		0.1732	0.1732	2.1000e-004		0.1777
Total	**2.6696**	**1.0700e-003**	**0.0949**	**1.0000e-005**		**2.1400e-003**	**2.1400e-003**		**2.1300e-003**	**2.1300e-003**	**0.0000**	**26.1144**	**26.1144**	**7.1000e-004**	**4.8000e-004**	**26.2767**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

Acorn Self Storage

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	-0.17	0.01	0.00	0.37	0.37	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.61	0.04	0.02	0.00	0.35	0.32	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.70	0.36	0.26	0.00	0.66	0.63	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.54	0.06	-0.06	0.00	0.46	0.41	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.70	0.32	0.14	0.00	0.62	0.58	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
Cement and Mortar Mixers	Diesel	Tier 2	1	1	No Change	0.00
Cranes	Diesel	Tier 2	1	1	No Change	0.00
Forklifts	Diesel	Tier 2	2	2	No Change	0.00
Generator Sets	Diesel	Tier 2	1	1	No Change	0.00
Graders	Diesel	Tier 2	2	2	No Change	0.00
Pavers	Diesel	Tier 2	1	1	No Change	0.00
Paving Equipment	Diesel	Tier 2	1	1	No Change	0.00
Rollers	Diesel	Tier 2	2	2	No Change	0.00
Rubber Tired Dozers	Diesel	Tier 2	1	1	No Change	0.00
Scrapers	Diesel	Tier 2	1	1	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	Tier 2	5	5	No Change	0.00
Welders	Diesel	Tier 2	3	3	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	1.95800E-002	1.31470E-001	1.21460E-001	1.90000E-004	9.87000E-003	9.87000E-003	0.00000E+000	1.67238E+001	1.67238E+001	1.59000E-003	0.00000E+000	1.67572E+001
Cement and Mortar Mixers	3.88000E-003	2.43200E-002	2.03500E-002	5.00000E-005	9.70000E-004	9.70000E-004	0.00000E+000	3.02462E+000	3.02462E+000	3.10000E-004	0.00000E+000	3.03122E+000
Cranes	3.70700E-002	4.42700E-001	1.63200E-001	3.70000E-004	1.92200E-002	1.76800E-002	0.00000E+000	3.37987E+001	3.37987E+001	1.05100E-002	0.00000E+000	3.40193E+001
Forklifts	2.07400E-002	1.82900E-001	1.39200E-001	1.70000E-004	1.46400E-002	1.34700E-002	0.00000E+000	1.60133E+001	1.60133E+001	4.98000E-003	0.00000E+000	1.61179E+001
Generator Sets	3.34600E-002	2.71360E-001	2.45590E-001	4.30000E-004	1.73700E-002	1.73700E-002	0.00000E+000	3.70211E+001	3.70211E+001	2.70000E-003	0.00000E+000	3.70778E+001
Graders	3.42900E-002	3.47090E-001	1.74170E-001	2.20000E-004	1.95000E-002	1.79400E-002	0.00000E+000	2.08232E+001	2.08232E+001	6.38000E-003	0.00000E+000	2.09572E+001
Pavers	2.37700E-002	2.66030E-001	1.87180E-001	3.00000E-004	1.30900E-002	1.20400E-002	0.00000E+000	2.76627E+001	2.76627E+001	8.48000E-003	0.00000E+000	2.78407E+001
Paving Equipment	1.86600E-002	2.12260E-001	1.67420E-001	2.60000E-004	1.06000E-002	9.75000E-003	0.00000E+000	2.45695E+001	2.45695E+001	7.53000E-003	0.00000E+000	2.47275E+001
Rollers	4.10400E-002	3.82980E-001	2.62790E-001	3.50000E-004	2.77500E-002	2.55300E-002	0.00000E+000	3.21122E+001	3.21122E+001	9.84000E-003	0.00000E+000	3.23188E+001
Rubber Tired Dozers	3.98800E-002	4.41950E-001	3.33010E-001	3.00000E-004	2.05300E-002	1.88900E-002	0.00000E+000	2.76558E+001	2.76558E+001	8.47000E-003	0.00000E+000	2.78337E+001
Scrapers	3.25000E-003	4.08000E-002	2.55000E-002	4.00000E-005	1.64000E-003	1.51000E-003	0.00000E+000	3.45491E+000	3.45491E+000	1.06000E-003	0.00000E+000	3.47714E+000
Tractors/Loaders/ Backhoes	5.34500E-002	5.16890E-001	4.18600E-001	5.50000E-004	3.83600E-002	3.52900E-002	0.00000E+000	5.05735E+001	5.05735E+001	1.55600E-002	0.00000E+000	5.09002E+001
Welders	8.77800E-002	3.31470E-001	3.66180E-001	5.00000E-004	2.25500E-002	2.25500E-002	0.00000E+000	3.69854E+001	3.69854E+001	7.17000E-003	0.00000E+000	3.71359E+001

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	7.46000E-003	1.54080E-001	1.20020E-001	1.90000E-004	6.23000E-003	6.23000E-003	0.00000E+000	1.67238E+001	1.67238E+001	1.59000E-003	0.00000E+000	1.67572E+001
Cement and Mortar Mixers	0.00000E+000	0.00000E+000	0.00000E+000	5.00000E-005	0.00000E+000	0.00000E+000	0.00000E+000	3.02462E+000	3.02462E+000	3.10000E-004	0.00000E+000	3.03121E+000
Cranes	9.09000E-003	3.14210E-001	1.96850E-001	3.70000E-004	6.66000E-003	6.66000E-003	0.00000E+000	3.37986E+001	3.37986E+001	1.05100E-002	0.00000E+000	3.40193E+001
Forklifts	8.28000E-003	1.70930E-001	1.33140E-001	1.70000E-004	6.91000E-003	6.91000E-003	0.00000E+000	1.60133E+001	1.60133E+001	4.98000E-003	0.00000E+000	1.61178E+001
Generator Sets	1.65200E-002	3.41090E-001	2.65690E-001	4.30000E-004	1.37900E-002	1.37900E-002	0.00000E+000	3.70210E+001	3.70210E+001	2.70000E-003	0.00000E+000	3.70777E+001
Graders	8.61000E-003	1.88880E-001	1.67600E-001	2.20000E-004	5.80000E-003	5.80000E-003	0.00000E+000	2.08232E+001	2.08232E+001	6.38000E-003	0.00000E+000	2.09572E+001
Pavers	1.16100E-002	2.54840E-001	2.26110E-001	3.00000E-004	7.82000E-003	7.82000E-003	0.00000E+000	2.76627E+001	2.76627E+001	8.48000E-003	0.00000E+000	2.78407E+001
Paving Equipment	1.03500E-002	2.27170E-001	2.01570E-001	2.60000E-004	6.97000E-003	6.97000E-003	0.00000E+000	2.45694E+001	2.45694E+001	7.53000E-003	0.00000E+000	2.47275E+001
Rollers	1.62800E-002	3.36170E-001	2.61860E-001	3.50000E-004	1.35900E-002	1.35900E-002	0.00000E+000	3.21122E+001	3.21122E+001	9.84000E-003	0.00000E+000	3.23188E+001
Rubber Tired Dozers	7.23000E-003	2.50100E-001	1.56690E-001	3.00000E-004	5.30000E-003	5.30000E-003	0.00000E+000	2.76558E+001	2.76558E+001	8.47000E-003	0.00000E+000	2.78337E+001
Scrapers	9.20000E-004	2.89600E-002	1.98600E-002	4.00000E-005	6.70000E-004	6.70000E-004	0.00000E+000	3.45490E+000	3.45490E+000	1.06000E-003	0.00000E+000	3.47713E+000
Tractors/Loaders/Backhoes	2.56100E-002	5.28990E-001	4.12060E-001	5.50000E-004	2.13800E-002	2.13800E-002	0.00000E+000	5.05734E+001	5.05734E+001	1.55600E-002	0.00000E+000	5.09002E+001
Welders	2.08000E-002	3.32150E-001	2.94130E-001	5.00000E-004	2.00900E-002	2.00900E-002	0.00000E+000	3.69853E+001	3.69853E+001	7.17000E-003	0.00000E+000	3.71359E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	6.18999E-001	-1.71978E-001	1.18558E-002	0.00000E+000	3.68794E-001	3.68794E-001	0.00000E+000	1.19590E-006	1.19590E-006	0.00000E+000	0.00000E+000	1.19351E-006
Cement and Mortar Mixers	1.00000E+000	1.00000E+000	1.00000E+000	0.00000E+000	1.00000E+000	1.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	3.29900E-006
Cranes	7.54788E-001	2.90242E-001	-2.06189E-001	0.00000E+000	6.53486E-001	6.23303E-001	0.00000E+000	1.18348E-006	1.18348E-006	0.00000E+000	0.00000E+000	1.17580E-006
Forklifts	6.00771E-001	6.54456E-002	4.35345E-002	0.00000E+000	5.28005E-001	4.87008E-001	0.00000E+000	1.24896E-006	1.24896E-006	0.00000E+000	0.00000E+000	1.24086E-006
Generator Sets	5.06276E-001	-2.56965E-001	-8.18437E-002	0.00000E+000	2.06102E-001	2.06102E-001	0.00000E+000	1.35058E-006	1.35058E-006	0.00000E+000	0.00000E+000	1.07881E-006
Graders	7.48906E-001	4.55818E-001	3.77218E-002	0.00000E+000	7.02564E-001	6.76700E-001	0.00000E+000	9.60467E-007	9.60467E-007	0.00000E+000	0.00000E+000	9.54327E-007
Pavers	5.11569E-001	4.20629E-002	-2.07982E-001	0.00000E+000	4.02597E-001	3.50498E-001	0.00000E+000	1.08449E-006	1.08449E-006	0.00000E+000	0.00000E+000	1.07756E-006
Paving Equipment	4.45338E-001	-7.02440E-002	-2.03978E-001	0.00000E+000	3.42453E-001	2.85128E-001	0.00000E+000	1.22103E-006	1.22103E-006	0.00000E+000	0.00000E+000	1.21322E-006
Rollers	6.03314E-001	1.22226E-001	3.53895E-003	0.00000E+000	5.10270E-001	4.67685E-001	0.00000E+000	1.24563E-006	1.24563E-006	0.00000E+000	0.00000E+000	9.28252E-007
Rubber Tired Dozers	8.18706E-001	4.34099E-001	5.29474E-001	0.00000E+000	7.41841E-001	7.19428E-001	0.00000E+000	1.08476E-006	1.08476E-006	0.00000E+000	0.00000E+000	1.07783E-006
Scrapers	7.16923E-001	2.90196E-001	2.21176E-001	0.00000E+000	5.91463E-001	5.56291E-001	0.00000E+000	2.89443E-006	2.89443E-006	0.00000E+000	0.00000E+000	2.87593E-006
Tractors/Loaders/Backhoes	5.20861E-001	-2.34092E-002	1.56235E-002	0.00000E+000	4.42649E-001	3.94163E-001	0.00000E+000	1.18639E-006	1.18639E-006	0.00000E+000	0.00000E+000	1.17878E-006
Welders	7.63044E-001	-2.05147E-003	1.96761E-001	0.00000E+000	1.09091E-001	1.09091E-001	0.00000E+000	1.08151E-006	1.08151E-006	0.00000E+000	0.00000E+000	1.07712E-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		
Yes	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	0.01	0.00	0.01	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
Grading	Fugitive Dust	0.21	0.11	0.21	0.11	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	0.01	0.00	0.01	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	3.16	3.16	2.93	3.51	3.16
Hearth	99.85	100.00	100.00	100.00	99.32	99.32	100.00	-90.90	61.94	100.00	100.00	63.52
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	29.07	29.06	29.24	25.00	29.30	29.30	0.00	29.05	29.05	27.91	26.83	29.05
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.16	0.02
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:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.01	0.16		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				
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				
	Commute	Commute Subtotal	0.00			

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

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
Yes	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	% Electric Lawnmower	0.00
No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Exceed Title 24	30.00	
No	Install High Efficiency Lighting	0.00	
Yes	On-site Renewable	700.00	0.00

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	