# CITY OF PACIFICA PLANNING DEPARTMENT



# 1335 Adobe Drive Residential Project

# INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

October 2018



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## **APPENDICES**

Appendix: Air Quality and Greenhouse Gas Emissions Assessment

Pacifica, CA 94044

## **INITIAL STUDY**

### June 2018

#### A. BACKGROUND

1. Project Title: 1335 Adobe Drive Project

Lead Agency Name and Address:
 City of Pacifica Planning Department 1800 Francisco Blvd.

3. Contact Person and Phone Number: Christian Murdock
Senior Planner
murdockc@ci.pacifica.ca.us

4. Project Location: 1335 Adobe Drive Pacifica, CA 94044

5. Project Sponsor's Name and Address:

1335 Adobe LLC
P.O. Box 347130
San Francisco, CA 94134
(415) 725-6983

6. General Plan Designation: High Density Residential (HDR)

7. Zoning: Multiple-Family Residential Garden (R-3-G)

8. Project Description Summary:

The 1335 Adobe Drive Residential Project (proposed project) includes development of three two- to three-story townhome buildings with a total of seven units on a 0.43-acre parcel located in the City of Pacifica, California. The first building would be 2,200 square feet (sf) containing two units; the second building would be 1,150 sf containing one unit; and the third building would be 4,425 sf containing four units. Vehicle parking would be provided in the form of attached garages and an uncovered surface parking lot. The project would include the approval of a tentative subdivision map to create a townhome common interest development.

#### B. SOURCES

All of the technical reports and modeling results prepared for the project analysis are available upon request at the City of Pacifica Planning Department, located at 1800 Francisco Blvd., Pacifica, CA 94044. The following documents are referenced information sources utilized for purposes of this Initial Study/Mitigated Negative Declaration:

- 1. Abrams Associates. *Peer Review of the Adobe Drive Condominiums TIA*. January 6, 2017.
- 2. Alameda County Superior Court. California Building Industry Association v. Bay Area Air Quality Management District. A135335 and A136212. Filed August 12, 2016.
- 3. Archeo-Tec. Review of Previous Archaeological Investigations and Recommendations for Further Archaeological Investigation at 1335 Adobe Drive, City of Pacifica, San Mateo County, California. May 15, 2015.
- 4. Balance Hydrologics, Inc. *Peer Review of C.3 Stormwater Compliance for the 1335 Adobe Drive Project, City of Pacifica.* January 7, 2017.
- 5. CAL FIRE. *Very High Fire Hazard Severity Zones in LRA, San Mateo County*. Available at: http://frap.fire.ca.gov/webdata/maps/san\_mateo/fhszl\_map.41.pdf. November 24, 2008.
- 6. Cal Recycle. *Estimated Solid Waste Generation Rates*. Available at: https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates. Accessed December 28, 2016.
- 7. California Department of Toxic Substances Control. *Hazardous Waste and Substances Site List*. Available at: http://www.dtsc.ca.gov/SiteCleanup/Cortese\_List.cfm. Accessed December 14, 2016.
- 8. California Scenic Highway Mapping System. *San Mateo County*. Available at: http://www.dot.ca.gov/hq/LandArch/16\_livability/scenic\_highways/. Accessed January 3, 2017.
- 9. City of Pacifica. Climate Action Plan. Adopted July 14, 2014.
- 10. City of Pacifica. Design Guidelines. Revised April 1990.
- 11. City of Pacifica. Housing Element: 2015-2023. Adopted May 11, 2015.
- 12. City of Pacifica. Pacifica Bicycle Plan. March 2000.
- 13. City of Pacifica. Redevelopment of the Beach Boulevard Property Draft Environmental Impact Report. October 2012.
- 14. City of Pacifica. *Tsunami Preparedness*. Available at http://www.cityofpacifica.org/depts/police/natural\_disasters/tsunami.asp. Accessed December 14, 2016.
- 15. City/County Association of Governments of San Mateo County, California. Comprehensive Airport Land Use Plan for the Environs of San Francisco International Airport. July 2012.
- 16. City/County Association of Governments of San Mateo County. *Final San Mateo County Congestion Management Program 2015*. November 2015.
- 17. Division of Mines and Geology. *Generalized Mineral Land Classification Map of the South San Francisco Bay Production—Consumption Region*. Published 1996.
- 18. j.c. brennan and associates, Inc. *Adobe Drive Townhomes, City of Pacifica, California*. August 22, 2017.
- 19. North Coast County Water District. 20-Year Long-Term Water Master Plan. February

2016.

- 20. RKH Civil and Transportation Engineering. *Transportation Impact Analysis, Adobe Drive Condominiums, Pacifica, California.* November 7, 2015.
- 21. Romig Engineers, Inc. Geotechnical Investigation, 7-Unit Townhome Development, 1335 Adobe Drive, Pacifica, California, 94044. July 2015.
- 22. San Mateo County. Comprehensive Airport Land Use Compatibility Plan. December 1996.
- 23. San Mateo Countywide Water Pollution Prevention Program. *C.3 Stormwater Technical Guidance*. June 2016.
- 24. San Mateo Countywide Water Pollution Prevention Program. Construction Best Management Practices. Available at: http://www.cityofpacifica.org/depts/planning/stormwater\_compliance/default.asp. Accessed January 4, 2017.
- 25. State of California Energy Commission. Adoption Hearing. June 10, 2015.
- 26. Tom Origer & Associates. *Investigations at a portion of Site CA-SMA-71 within the parcel at 1335 Adobe Drive, Pacifica, San Mateo, California.* May 11, 2018.
- 27. Tom Origer & Associates. Peer Review of *Final Report of Archaeological Investigations* at 1335 Adobe Drive, City of Pacifica, San Mateo County. February 17, 2017.

#### C. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

	Aesthetics		<b>Agriculture and Forest</b>		Air Quality
			Resources		
×	<b>Biological Resources</b>	*	<b>Cultural Resources</b>	*	Geology and Soils
	<b>Greenhouse Gas Emissions</b>		<b>Hazards and Hazardous</b>	×	Hydrology and Water Quality
			Materials		
	Land Use and Planning		Mineral Resources	×	Noise
	Population and Housing		<b>Public Services</b>		Recreation
×	Transportation & Circulation	*	Tribal Cultural		<b>Utilities and Service Systems</b>
	•		Resources		·
	Mandatory Findings of				
	Significance				

# D. DETERMINATION

On the	e 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 courenvironment, there will not be a significant effect project have been made by or agreed to by the appropriate DECLARATION will be prepared.	in this case because revisions in the						
	I find that the Proposed Project MAY have a sign an ENVIRONMENTAL IMPACT REPORT is requ							
	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 coulenvironment, because all potentially significant effection in an earlier EIR pursuant to applicable standards, a pursuant to that earlier EIR, including revisions or upon the proposed project, nothing further is required.	ects (a) have been analyzed adequately and (b) have been avoided or mitigated mitigation measures that are imposed						
Signat	ture	Date						
CI.								
	tian Murdock	Ton.						
rinte	ed Name	For						

#### E. BACKGROUND AND INTRODUCTION

This Initial Study/Mitigated Negative Declaration (IS/MND) identifies and analyzes the potential environmental impacts of the 1335 Adobe Drive Residential Project (proposed project). The information and analysis presented in this document are organized in accordance with the order of the CEQA checklist in Appendix G of the CEQA Guidelines. If the analysis provided in this document identifies potentially significant environmental effects of the project, mitigation measures that should be applied to the project are prescribed.

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

In July 1980, the City of Pacifica adopted the City of Pacifica General Plan. The City is currently in the process of updating their General Plan. In March of 2014, the City of Pacifica released a Draft General Plan Update and associated Draft Environmental Impact Report (EIR). However, the Draft General Plan Update and associated Draft EIR have not yet been adopted or certified by the City. Therefore, the analysis contained within this IS/MND relies primarily on the guidelines and information contained within the adopted 1980 General Plan.

#### F. PROJECT DESCRIPTION

A description of the proposed project, including the location and setting, components, and discretionary actions, is provided below.

#### **Project Location and Setting**

The proposed project site consists of an 18,344-sf lot located at 1335 Adobe Drive in the Linda Mar neighborhood of the City of Pacifica, California, San Mateo County (see Figure 1 and Figure 2). The site is identified by Assessor's Parcel Number (APN) 023-222-080. The adopted General Plan designates the site as HDR, and the site is zoned R-3-G.

The site is currently vacant and regularly disked. The eastern portion of the site contains a small number of trees, including a Coast Redwood located near the center of the site, and the remainder of the site consists of moderate to highly disturbed ruderal grasses, with the exception of a small graveled area in the western corner of the site. The site has experienced a moderate level of disturbance as a result of human activity. An existing five-foot wide utility easement parallels and is directly adjacent to the southeast boundary of the site. A second utility easement is located within the eastern portion of the site.

Figure 1 Regional Project Location

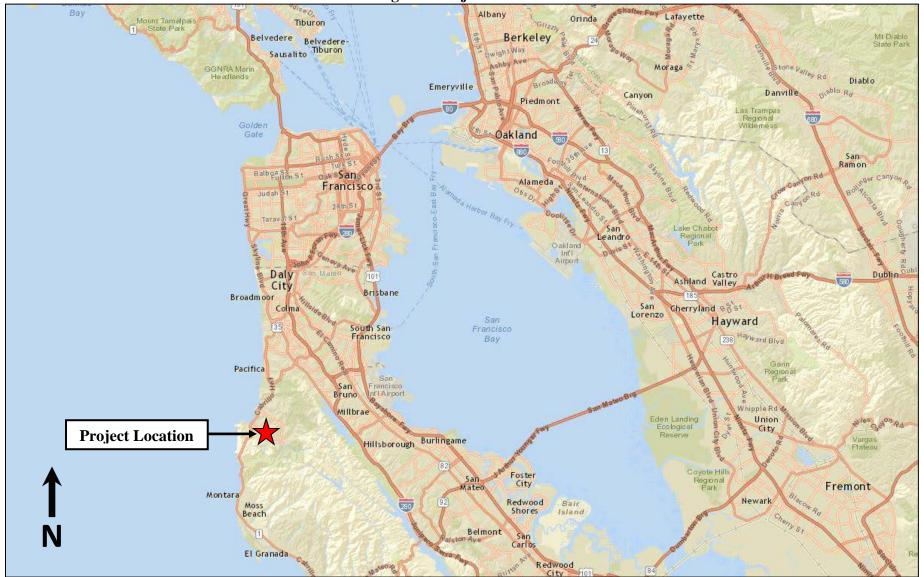


Figure 2 Project Vicinity Map



The site is bordered on the northeast and southeast sides by a wooden fence, and by an existing two-story apartment building to the southwest. The northwest side of the site fronts Adobe Drive, which includes sidewalks on both sides of the roadway. Linda Mar Boulevard, a four-lane arterial roadway, intersects Adobe Drive approximately 130 ft east of the project frontage.

Existing surrounding land uses include a limousine rental company (SF Rides) and a small shopping center (Adobe Plaza) to the north, apartments, townhomes, and single-family residences to the west, the Sanchez Adobe County Park to the south, and a single-family residential home to the northeast. The portion of the Sanchez Adobe County Park adjacent to the proposed project site includes a small parking lot associated with the park. The Alma Heights Middle School and High School is located approximately 420 feet to the southeast of the site and the Alma Heights Christian Elementary School is located approximately 175 feet to the east along Seville Drive.

#### **Project Components**

The proposed project would include development of three clustered townhome buildings on the existing 0.43-acre parcel. In addition, the project would include four public open space areas, storm drainage and utility improvements, a central paved road/driveway, and uncovered parking areas (see Figure 3, Tentative Map). The various project components are discussed in further detail below.

#### Multi-Family Development

The proposed project would include construction of three townhome buildings with a total of seven units. The first building would be 4,929 sf containing two units; the second building would be 2,746 sf containing one unit; and the third building would be 10,460 sf containing four units. The proposed building elevations are shown in Figure 4 below. Habitable living space for the individual units would range from 1,674 sf to 2,226 sf.

#### Parking and Access

Access to the seven units would be provided by a proposed court (Adobe Court) which would extend from Adobe Drive through the center of the proposed project site. The project would include vehicle parking in the form of seven attached garages associated with each of the seven proposed units. In addition, the project would include uncovered surface parking in the form of two guest spaces at the north end of Adobe Court, as well as a third guest spot, an American Disabilities Act (ADA) parking space, and an ADA loading zone located along the west side of Adobe Court adjacent to a proposed open space area (see Figure 5).

#### Open Space and Landscaping

The proposed project would include four public open space areas (see Figure 5). The largest area would be approximately 800 sf and would be located on the eastern portion of the site. A second 484 sf area would be located on the north side of the site between two of the proposed buildings. Both the 800 sf and the 484 sf areas would include rain gardens. The other two areas would be located directly adjacent to the existing sidewalk on the portion of the site fronting Adobe Drive.

The project would feature landscaping throughout the open space areas, along the edges of Adobe Court, and along the edges of the proposed parking areas (see Figure 6).

Figure 3 Tentative Map

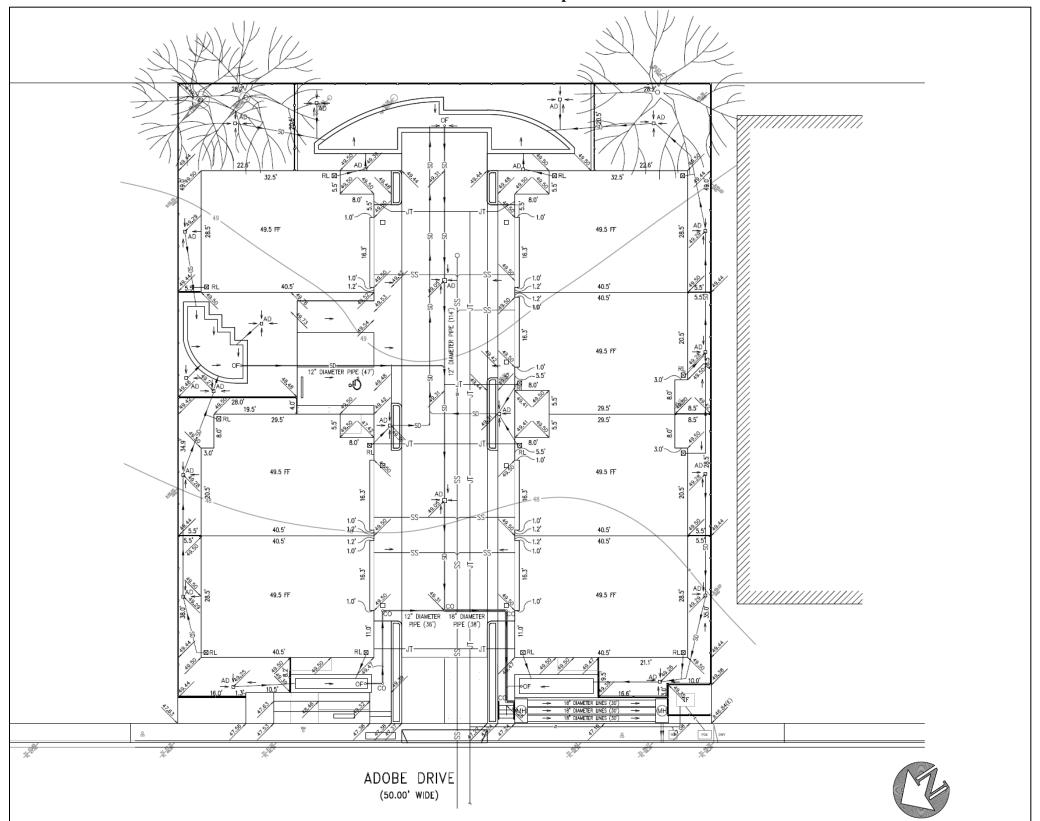


Figure 4
Proposed Building Elevations



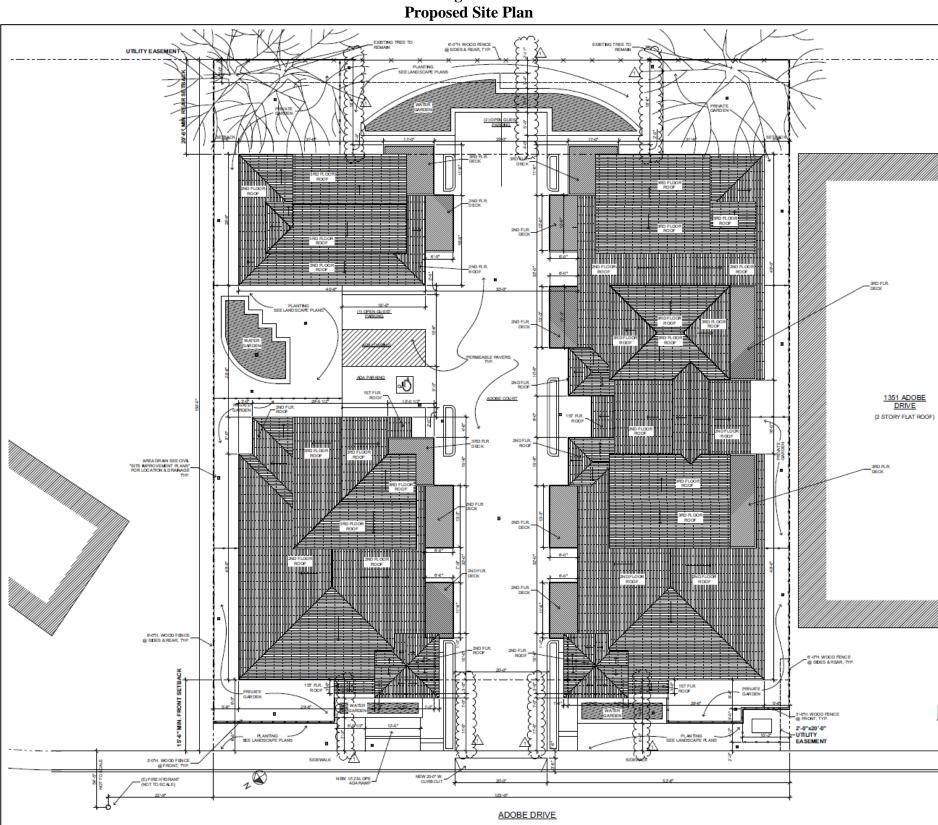
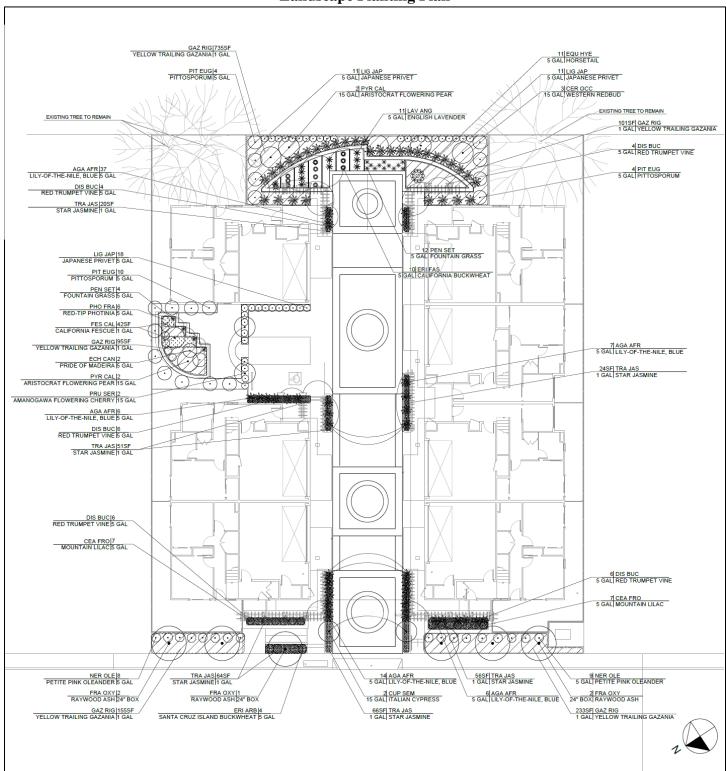


Figure 5 Proposed Site Plan

Figure 6 Landscape Planting Plan



Water, Sewer, and Stormwater Infrastructure

Sewer service for the proposed project would be provided by the City by way of a proposed connection to the existing eight-inch sanitary sewer line underneath Adobe Drive. Water service would be provided by the North Coast County Water District (NCCWD) through a connection to the existing water main adjacent to the northeast side of the roadway.

The proposed project would include stormwater infrastructure to manage and treat all runoff from all on-site impervious areas created by the project. Site runoff would be routed through a system of rain gardens designed to treat stormwater, and into a set of three 18-inch pipes located in the western portion of the site.

The project would include a new Public Service, Private Storm Drainage, and Private Sanitary Sewer Easement underneath the proposed Adobe Court.

#### **Discretionary Actions**

In addition to adoption of the IS/MND, implementation of the proposed project would require the following discretionary actions by the City of Pacifica:

- Approval of a Tentative Subdivision Map;
- Approval of a Use Permit and Site Development Permit; and
- Heritage Tree Removal Authorization.

#### G. ENVIRONMENTAL CHECKLIST

The following Checklist contains the environmental checklist form presented in Appendix G of the CEQA Guidelines. The checklist form is used to describe the impacts of the proposed project. A discussion follows each environmental issue identified in the checklist. Included in each discussion are project-specific mitigation measures recommended as appropriate 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 no mitigation has been identified. If any potentially significant impacts are identified, an EIR must be prepared.

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

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

**No Impact:** The project would not have any impact.

I.	AESTHETICS. buld the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a.	Have a substantial adverse effect on a scenic vista?			*	
b.	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?			*	
c.	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 nighttime views in the area?			*	

#### **Discussion**

a. Examples of typical scenic vistas would include mountain ranges, ridgelines, or bodies of water as viewed from a highway, public space, or other area designated for the express purpose of viewing and sightseeing. In general, a project's impact to a scenic vista would occur if development of the project would substantially change or remove a scenic vista. The City's General Plan does not contain any policies that specifically address scenic vistas, nor does the adopted General Plan define or identify any scenic vistas within the vicinity of the project site. Policy 3 in the Community Design Element of the General Plan sets the goal of protecting the City's irreplaceable scenic and visual amenities, but does not define or identify specific scenic vistas.

The project site is relatively flat and is not located along a ridgeline or on a hillside, and is surrounded by existing development. Thus, the site is not located within the vicinity of a designated scenic vista, and a *less-than-significant* impact regarding scenic vistas would occur.

- b. The City does not contain an Officially Designated Scenic Highway. Highway 1, which is located approximately 0.54 mile west of the proposed project site, is an Eligible State Scenic Highway, but is not officially designated. The project site is not visible from Highway 1, and would not negatively affect scenic resources associated with the roadway. Therefore, the proposed project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway. As such, a *less than significant* impact would occur.
- c. The proposed project site is currently vacant and undeveloped, and, as such, development of the site with three multi-family townhome buildings would change the existing visual setting. However, the surrounding area is developed with commercial and residential

<sup>1</sup> California Scenic Highway Mapping System. *San Mateo County*. Available at: http://www.dot.ca.gov/hq/LandArch/16\_livability/scenic\_highways/. Accessed January 3, 2017.

uses, and the proposed project would be considered compatible and consistent with such uses. In addition, various landscaping features would be included along the project frontage and throughout the proposed on-site walkways and open space areas. Nevertheless, the project represents a substantial change in the character of the site, and further analysis is required to ensure that such a change does not have a negative impact on public views in the surrounding area.

#### **Visual Simulations**

Visual simulations were prepared for the proposed project to aid in evaluating the potential visual impacts of the proposed project to the surrounding areas (see Figure 7 through Figure 14). The visual simulations include before and after views of the proposed project site, including all proposed landscaping improvements, from views in the surrounding area. Details regarding the visual simulation are provided below.

View of Site from Linda Mar Boulevard Looking West

Figure 7 and Figure 8 present the existing and potential future views of the site looking west from Linda Mar Boulevard. Linda Mar Boulevard experiences a moderate amount of traffic on a daily basis, and, thus, the roadway provides views of the proposed project site to a large number of drivers travelling westward. In addition, the site is visible to pedestrians and bicyclists. However, as shown in the figures, the project would be largely blocked from view by the existing foliage lining the Adobe Sanchez County Park parking lot. Furthermore, it is important to note that views of the project site from drivers, pedestrians, and bicyclists travelling on Linda Mar Boulevard would not be permanent views, but would only be passing views. Accordingly, such viewers would not be expected to be significantly sensitive to changes in the visual character or quality of the project site, as views would only be temporary as they pass the site. Overall, the visual character of the area from the viewpoint would not be substantially degraded with implementation of the proposed project.

View of Site from Sanchez Adobe County Park Looking Northwest

Figure 9 and Figure 10 present the existing and potential future views of the site looking northwest from the Sanchez Adobe County Park parking lot. The site is separated from the parking lot by a wooden fence, and, thus, the existing views from the parking lot primarily consist of the existing apartment buildings located south and west of the site. Existing vegetation on the edge of the parking lot partially screens views beyond the fence. As shown in Figure 10, the post-project view from the parking lot would consist of a partially-obstructed view of the second and third floors of the proposed buildings. While the post-project view would reduce the openness of the views of the site from the parking lot, the project would be consistent with the existing urban development in the area, and would not detract from the overall visual character of the area.

Figure 7
Existing View of Site from Linda Mar Boulevard Looking West



Figure 8
View of Proposed Project from Linda Mar Boulevard Looking West



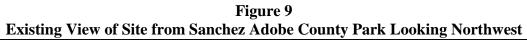




Figure 10
View of Proposed Project from Sanchez Adobe County Park Looking Northwest







Figure 12 View of Proposed Project from Adobe Plaza Looking South



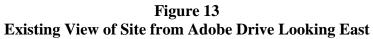




Figure 14 View of Proposed Project from Adobe Drive Looking East



#### View of Site from Adobe Plaza Looking South

Figure 11 and Figure 12 present the existing and potential future views of the site looking south from the Adobe Plaza parking lot. Currently, the site is largely blocked from view by the single-family residence northeast of the site and landscaping features associated with the residence. As shown in Figure 12, the third floor of the proposed townhomes, as well as a portion of the project frontage, would be visible from the parking lot. However, given the partial screening of the proposed buildings offered by the existing single-family residence, the project would not dominate the general aesthetic environment of the area. In addition, views of the of the ridgeline behind the project site would be mostly unobstructed. Therefore, while the project would be clearly visible to shoppers at the shopping center, the natural backdrop provided by the surrounding hillsides would be unaffected. Consequently, views of the area afforded to shoppers at Adobe Plaza, as well as drivers travelling through the nearby intersection, would not be substantially degraded as a result of the proposed project.

#### View of Site from Adobe Drive Looking East

Figure 13 and Figure 14 present the existing and potential future views of the site looking east from Adobe Drive. Drivers, bicyclists, and pedestrians travelling on the roadway are afforded prominent views of the site. Currently, such views consist of a chain link fence surrounding the site as well as the existing on-site vegetation. The backdrop of the site consists primarily of a wooded hillside located east of the site. Following project implementation, the existing chain-link fence would be removed and the proposed townhomes would be clearly visible from the street. However, views of the wooded hillside would be retained, and would complement the new development. In addition, landscaping would be provided alongside the sidewalk fronting the project. Overall, the project would increase the aesthetic value of the site and would blend with existing residential development in the area.

#### Conclusion

As shown in the photo simulations, implementation of the proposed project would result in noticeable changes to the visual character of the area; however, modifications to the visual character or quality of the site and surrounding area as a result of the proposed project would not be considered a substantial degradation. In addition, the proposed project would include landscaping and other design aspects to enhance the aesthetic character of the site and the surrounding area. Visual consistency of the project design, and compliance with all requirements of the City Municipal Code, would be required by the City. Therefore, the proposed project would not substantially degrade the existing visual character or quality of the site and its surroundings, and a *less-than-significant* impact would occur.

d. The proposed project site is currently vacant and does not include permanent structures. Accordingly, sources of light and glare do not exist on the project site. The proposed project would introduce new sources of light and glare to the project site in the form of

three townhome buildings. Sources of light would include, but are not limited to, exterior and interior lighting associated with the proposed building, car headlights, and lighting associated with the guest parking area. The proposed buildings could potentially produce daytime glare as a result of light reflecting off of windows.

However, due to the predominantly developed nature of the area, the increase in light and glare sources would not be expected to substantially increase the potential for sky glow. The light and glare associated with the proposed project site would be typical of small residential developments, and would be consistent with the surrounding developed area. In addition, the project site has been planned by the City for high-density residential uses.

The adopted City of Pacifica General Plan does not currently contain any policies specific to light and glare impacts. However, the Pacifica Design Guidelines require that exterior lighting is subdued and enhances building design. In addition, the Guidelines prohibit use of lighting which creates glare for occupants or neighbors. Compliance with the Pacifica Design Guidelines would ensure that the project would not introduce sources of light or glare which would pose a hazard or nuisance to neighboring development. As such, a *less-than-significant* impact would occur relating to creation of a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

<sup>&</sup>lt;sup>2</sup> City of Pacifica. *Design Guidelines* [pg. 3]. Revised April 1990.

	AGRICULTURE AND FOREST RESOURCES. uld the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a.	Convert Prime Farmland, Unique Farmland, or				
	Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the				•
	Farmland Mapping Program of the California	Ш	Ш	Ш	•
	Resources Agency, to non-agricultural use?				
b.	Conflict with existing zoning for agricultural use, or	П	П	П	*
	a Williamson Act contract?			Ш	•
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 on the San Mateo County Important Farmland 2014 map. The site is surrounded by existing residential and commercial uses and is not used for agricultural operations. Given the setting of the project site, agricultural operations would not be compatible with the site. Therefore, development of the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use, or involve other changes in the existing environment which could individually or cumulatively result in loss of Farmland to non-agricultural use. Thus, *no impact* would occur.
- b. The project site is not under Williamson Act contract, nor is the site zoned for agricultural use. The current zoning designation for the project site is R-3-G. Therefore, the project would have *no impact* with respect to conflicting with existing zoning for agricultural use or Williamson Act contracts.
- c,d. The proposed 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]). In addition, the project would not involve other changes in the existing environment which, due to their location or nature, could individually or cumulatively result in loss of forest land or Farmland to non-agricultural use. Thus, a *less-than-significant* impact would occur.

	. AIR QUALITY. uld the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less- Than- Significant Impact	No Impact
a.	Conflict with or obstruct implementation of the applicable air quality plan?			*	
b.	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 Pacifica 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<sub>2.5</sub>), and State particulate matter 10 microns in diameter (PM<sub>10</sub>) 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<sub>2.5</sub> federal AAQS. Nonetheless, the Bay Area must continue to be designated as nonattainment for the federal PM<sub>2.5</sub> AAQS until such time as the BAAQMD submits a redesignation request and a maintenance plan to the USEPA, and the USEPA approves the proposed redesignation.

In compliance with regulations, due to the nonattainment designations of the area, the BAAQMD periodically prepares and updates air quality plans that provide emission reduction strategies to achieve attainment of the AAQS, including control strategies to reduce air pollutant emissions through regulations, incentive programs, public education, and partnerships with other agencies. The current air quality plans are prepared in cooperation with the Metropolitan Transportation Commission (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 2017 Clean Air Plan (CAP), adopted on April 19, 2017. The 2017 CAP was developed as a multi-

pollutant plan that provides an integrated control strategy to reduce ozone, PM, toxic air contaminants (TACs), and greenhouse gases (GHGs). Although a plan for achieving the State PM<sub>10</sub> standard is not required, the BAAQMD has prioritized measures to reduce PM in developing the control strategy for the 2017 CAP. The control strategy serves as the backbone of the BAAQMD's current PM control program.

The aforementioned air quality plans contain mobile source controls, stationary source controls, and transportation control measures to be implemented in the region to attain the State and federal AAQS within the SFBAAB. Adopted BAAQMD rules and regulations, as well as the thresholds of significance, have been developed with the intent to ensure continued attainment of AAQS, or to work towards attainment of AAQS for which the area is currently designated nonattainment, consistent with applicable air quality plans. The BAAQMD's established significance thresholds associated with development projects for emissions of the ozone precursors reactive organic gases (ROG) and oxides of nitrogen (NO<sub>x</sub>), as well as for PM<sub>10</sub>, and PM<sub>2.5</sub>, 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 construction emissions of ROG, NO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub>, a project would be considered to conflict with or obstruct implementation of the BAAQMD's air quality planning efforts. The City, as lead agency, has chosen to use the BAAQMD's thresholds of significance for evaluation of the proposed project.

Table 1 BAAQMD Thresholds of Significance								
	Construction	Oper	ational					
	Average Daily	Average Daily	Maximum Annual					
Pollutant	Emissions (lbs/day)	Emissions (lbs/day)	Emissions (tons/year)					
ROG	54	54	10					
NO <sub>x</sub>	54	54	10					
PM <sub>10</sub> (exhaust)	82	82	15					
PM <sub>2.5</sub> (exhaust)	54	54	10					
Source: BAAQMD, C	Source: BAAQMD, CEQA Guidelines, 2017.							

The proposed project's construction and operational emissions were quantified using the California Emissions Estimator Model (CalEEMod) software version 2016.2.1 – 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, 9<sup>th</sup> Edition, vehicle mix, trip length, average speed, etc. Where project-specific information is available, such information should be applied in the model. The land use "condo/townhouse" was applied to the model based on the known characteristics of the proposed residential structures. Specific construction information applied to the modeling for the proposed project included that 0.43 acres of land would be disturbed during grading activities. The site does not contain existing structures, and, thus, demolition was not included in the modeling. All CalEEMod results are included in the Appendix.

The proposed project's required compliance with the 2016 Building Energy Efficiency

Standards (2016 Standards) contained in the California Building Standards Code was assumed in the modeling. Building Energy Efficiency Standards are updated on an approximately three-year cycle. In accordance with the update cycle, the 2016 Building Standards took effect on January 1, 2017. The 2016 Building Energy Efficiency Standards include energy efficiency standards set forth in the Building Energy Efficiency Program. The 2016 Standards expand upon energy efficiency measures from the previous 2013 Building Energy Efficiency Standards (2013 Standards) and are estimated to result in a 28 percent reduction in energy consumption from the 2013 Standards for residential structures.<sup>3</sup> Adherence to the 2016 Standards is assumed for the purposes of this analysis.

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

#### **Construction Emissions**

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

Table 2 Maximum Construction Emissions (lbs/day)							
Proposed Project Threshold of							
Pollutant ROG	Emissions 2.51	Significance 54	Exceeds Threshold? NO				
NO <sub>X</sub>	13.19	54	NO				
PM <sub>10</sub> (exhaust)	0.86	82	NO				
PM <sub>10</sub> (fugitive)	0.93	None	N/A				
PM <sub>2.5</sub> (exhaust)	0.80	54	NO				
PM <sub>2.5</sub> (fugitive)	0.45	None	N/A				
Source: CalEEMod, Janu	ary 2017 (see Appendix).						

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

- 1. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- 2. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- 3. All vehicle speeds on unpaved roads shall be limited to 15 mph.
- 4. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

State of California Energy Commission. *Adoption Hearing*. June 10, 2015.

- 5. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- 6. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
- 7. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

The proposed project's required implementation of the BAAQMD's Basic Construction Mitigation Measures listed above would help to further minimize any construction-related fugitive PM emissions.

#### **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.

Table 3							
	Unmitigated	l Maximum O	perational E	missions			
Pollutant	Proposed Proj	ject Emissions	Threshold o	f Significance	Exceeds		
	lbs/day	tons/yr	lbs/day	tons/yr	Threshold?		
ROG	3.22	0.07	54	10	NO		
$NO_X$	0.32	0.04	54	10	NO		
PM <sub>10</sub> (exhaust)	0.55	0.00	82	15	NO		
PM <sub>10</sub> (fugitive)	0.20	0.03	None	None	N/A		
PM <sub>2.5</sub> (exhaust)	0.55	0.00	54	10	NO		
PM <sub>2.5</sub> (fugitive)	0.05	0.01	None	None	N/A		
Source: CalEEMod	, January 2017 (se	ee Appendix).					

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.

#### **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 not result in emissions above the applicable thresholds of significance for ROG, NO<sub>X</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>, respectively, 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. Because the proposed project would not result in construction related or operational emissions of air pollutants in excess of BAAQMD's thresholds of significance, the proposed project would not be considered to conflict with or obstruct the implementation of any regional air quality plans. Therefore, the proposed project would not contribute to the region's nonattainment status for ozone or PM or contribute substantially to the violation of an air quality standard, and a *less-than-significant* impact would result.

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. Sensitive receptors are typically defined as facilities where sensitive receptor population groups (i.e., children, the elderly, the acutely ill, and the chronically ill) are likely to be located. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, playgrounds, childcare centers, retirement homes, convalescent homes, hospitals, and medical clinics. The nearest existing sensitive receptors would be the apartment complex directly adjacent to the western boundary of the site and the single-family residence northeast of the site. Alma Heights Christian Elementary School is located approximately 150 feet east of the site.

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. It should be noted that issues related to airborne asbestos and lead contaminants are typically associated with demolition of structures containing such materials. Given the project site is absent of any existing structures, airborne asbestos and lead would not pose a risk to workers or future residents at the project site.

#### **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.).

As discussed in the Transportation/Traffic section of this IS/MND, the proposed project would not conflict with any applicable congestion management programs. Additionally, traffic counts for the area completed as part of a Transportation Impact Analysis (TIA) prepared for the project showed that all of the intersections in the project area experience traffic levels far below 44,000 vehicles per hour. As such, the proposed project would not increase traffic volumes at an affected intersection to more than 44,000 vehicles per hour. Furthermore, areas where vertical and/or horizontal mixing is limited due to tunnels, underpasses, or similar features do not exist in the project area. As such, the proposed project would not be expected to 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, freeways and high traffic roads, distribution centers, and rail yards. The CARB

<sup>&</sup>lt;sup>4</sup> RKH Civil and Transportation Engineering. *Transportation Impact Analysis, Adobe Drive Condominiums, Pacifica, California* [pg. 5]. November 7, 2015.

has identified diesel particulate matter (DPM) from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Health risks 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.

As part of the ongoing California Building Industry Association v. Bay Area Air Quality Management District case, the California Supreme Court granted limited review to the question: 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? In the opinion published on December 17, 2015, the Supreme Court looked closely at the language and legislative intent in CEQA, and found that CEQA does not provide "enough of a basis to suggest that the term 'environmental effects' [...] is meant, as a general matter, to encompass these broader considerations associated with the health and safety of a project's future residents or users." Based on the Supreme Court opinion, it would be considered appropriate to evaluate a project's potentially significant exacerbating effects on existing environmental hazards – effects that arise because the project brings "development and people into the area affected." The Supreme Court stated that even in those specific instances where evaluation of a project's potentially significant exacerbating effects on existing environmental hazards is appropriate, the evaluation of how future residents or users could be affected by the exacerbated conditions is still compelled by the project's impact on the environment, and not the environment's impact on the project.<sup>5</sup>

The proposed project would not involve any land uses or operations that would be considered major sources of TACs, including DPM. As such, the proposed project would not generate any substantial pollutant concentrations during operations, and thus operation of the project would not be considered to exacerbate any existing environmental affects related to TAC emissions. However, short-term, construction-related activities could result in the generation of TACs, specifically DPM, from on-road haul trucks and off-road equipment exhaust emissions. However, construction is temporary and occurs over a relatively short duration in comparison to the operational lifetime of the proposed project. All construction equipment and operation thereof would be regulated per the In-Use Off-Road Diesel Vehicle Regulation, which is intended to help reduce emissions associated with off-road diesel vehicles and equipment, including DPM. Project construction would also be required to comply with all applicable BAAQMD rules and regulations, particularly associated with permitting of air pollutant sources.

Because construction equipment on-site would 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 both

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Alameda County Superior Court. California Building Industry Association v. Bay Area Air Quality Management District. A135335 and A136212. Filed August 12, 2016.

the concentration of emissions and the duration of exposure, where the higher the concentration and/or the longer the period of time that a sensitive receptor is exposed to pollutant concentrations would correlate to a higher health risk. 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. Therefore, construction of the proposed project would not be expected to expose nearby sensitive receptors to substantial pollutant concentrations.

#### Conclusion

Based on the above discussion, the proposed project would not expose any sensitive receptors to substantial concentrations of localized CO, TACs from existing stationary sources, DPM from construction or traffic activity, airborne asbestos, and/or airborne lead. Therefore, the proposed project would result in a *less-than-significant* impact related to the exposure of sensitive receptors to substantial concentrations of pollutants.

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. The proposed project is residential in nature, and residential land uses are not typically associated with the creation of substantial objectionable odors. As a result, the proposed project operations would not create any objectionable odors that would affect a substantial number of people.

Although less common, diesel fumes associated with substantial diesel-fueled equipment and heavy-duty trucks, such as from construction activities, freeway traffic, or distribution centers, could be found to be objectionable. As such, the proposed project activities could cause diesel fumes, which could be considered objectionable, during the temporary construction period. Although diesel fumes from construction equipment are often found to be objectionable, construction is temporary and construction equipment would operate intermittently throughout the course of a day, would be restricted to the hours of 7:00 AM to 7:00 PM, Monday through Friday, and 9:00 AM to 5:00 PM on Saturday and Sunday. In addition, all construction equipment and operation thereof would be regulated per the In-Use Off-Road Diesel Vehicle Regulation. Project construction would also be required to comply with all applicable BAAQMD rules and regulations, particularly associated with permitting of air pollutant sources. The aforementioned regulations would help to minimize air pollutant emissions as well as any associated odors. Considering the short-term nature of construction activities and the regulated and intermittent nature of the operation of construction equipment, construction of the proposed project would not be expected to create objectionable odors affecting a substantial number of people.

It should be noted that BAAQMD regulates objectionable odors through Regulation 7, Odorous Substances, which does not become applicable until the Air Pollution Control Officer (APCO) receives odor complaints from ten or more complainants within a 90-day period. Once effective, Regulation 7 places general limitation on odorous substances and specific emission limitations on certain odorous compounds, which remain effective until such time that citizen complaints have not been received by the APCO for one year. The limits of Regulation 7 become applicable again when the APCO receives odor complaints from five or more complainants within a 90-day period. Thus, although not anticipated, if odor complaints are made after the proposed project is developed, the BAAQMD would ensure that such odors are addressed and any potential odor effects reduced to less than significant.

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

	. BIOLOGICAL RESOURCES. buld the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less- Than- Significant Impact	No Impact
a.	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		*		
b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. 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. The proposed project site consists of a 0.43-acre parcel located in the Linda Mar neighborhood of the City of Pacifica. The surrounding area is highly developed. The eastern portion of the site contains a small number of trees and a large stump, while the remainder of the site consists predominantly of ruderal grasses and a few scattered manzanita shrubs. The site is moderately disturbed.

A query of CNDDB was performed in order to determine the potential plant and wildlife species that could occur within the proposed project site area. The search area for the query was comprised of the Montara Mountain Quad and the five surrounding Quads. The CNDDB query results indicated 114 special-status plant and wildlife species that could potentially occur in the project's extended area, including San Francisco gartersnake, which is recorded as occurring throughout the entirety of the Montara

Mountain Quad. However, none of the returned species, including San Francisco gartersnake, have been recorded specifically within the vicinity of the proposed project. Habitat requirements of the returned species include, but are not limited to, chaparral, coastal shrub, coastal dunes, cismontane woodland, and wetlands. The proposed project site consists primarily of ruderal grasses and does not contain any such habitat. While some of the species have grassland habitat requirements, the disturbed ruderal grasses present on-site do not provide adequate habitat for such species.

### Conclusion

The site does not provide suitable habitat for special-status plants. Due to moderate levels of disturbance on-site, the urban setting of the site, and the absence of suitable habitat, special-status wildlife species do not have the potential to occur at the site on more than a very occasional or transitory basis. However, the existing on-site trees that would be removed as part of the proposed project could provide habitat to migratory or nesting birds.

Birds and their nests are protected under California Fish and Game Code (Sections 3503, 3503.5, 3513), and the Migratory Bird Treaty Act (MBTA). The proposed project would include removal of trees during construction, and, thus, could result in impacts to nesting birds. Without implementation of the following mitigation measures, which require preconstruction raptor and nesting surveys and a construction buffer, development of the proposed project could have a substantial adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special-status in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. Therefore, the proposed project could result in a *potentially significant* impact.

### Mitigation Measure(s)

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

IV-1(a). Prior to initiation of ground disturbing activities, if construction is expected to occur during the raptor nesting season (February 1 to August 31), a pre-construction raptor survey shall be performed to determine if active raptor nests are present in the trees adjacent to the site. The survey shall be conducted by a qualified biologist not more than ten days prior to the onset of construction activities. If construction activities cease for longer than two weeks, a subsequent pre-construction survey shall be conducted. If active raptor nests are not found on or within 500 feet of the project site, further mitigation is not necessary. In addition, if construction activities are proposed to occur during the non-breeding season (September 1 to January 31), a survey is not required and further studies are not necessary. However, if active raptor nests are found on or within 500 feet of the site, the project applicant shall implement Mitigation Measure IV-1b. The pre-construction raptor surveys within 500 feet of the

site shall be conducted to the extent the surveyor can reasonably obtain permission from property owners to enter adjacent properties (in cases where the survey cannot be completed from the public right-of-way). The pre-construction raptor survey(s) shall be submitted to the City of Pacifica Planning Department.

- IV-1(b). During construction, ground disturbing activities shall not occur within 500 feet of the active raptor nest(s) until the young have fledged or until the biologist has determined that the nest is not active any longer. If construction activities cause the nesting bird(s) to vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest, then the exclusionary buffer shall be increased, as determined by the qualified biologist, such that activities are far enough from the nest to stop the agitated behavior. The exclusionary buffer shall remain in place until the young have fledged or as otherwise determined by a qualified biologist.
- IV-1(c). Prior to initiation of ground disturbing activities, if any vegetation removal is expected to occur as a result of the project during the typical avian nesting season (February 1 to August 31), a pre-construction survey shall be performed to determine if active migratory bird nests are present in the trees adjacent to the site. The survey shall be conducted by a qualified biologist not more than ten days prior to the onset of vegetation removal. If construction activities cease for longer than two weeks, a subsequent pre-construction survey shall be conducted. The pre-construction migratory bird survey shall be conducted to the extent the surveyor can reasonably obtain permission from property owners to enter adjacent properties (in cases where the survey cannot be completed from the public right-of-way). The pre-construction survey shall be submitted to the City of Pacifica Planning Department.

If active migratory bird nests are not noted during the survey, further mitigation shall not be required. If active migratory bird nests are found on-site, disturbance or removal of the nest shall be avoided until the young have fledged and the nest is not active any longer.

It should be noted that extensive buffers, such as those recommended for nesting raptors, are not necessary for nesting avian species protected solely by the Migratory Bird Treaty Act. Depending on the bird species, site conditions, and the proposed construction activities near an active nest, a smaller buffer could be prescribed, as determined by the biologist, but in no case less than 25 feet. However, if construction activities cause the nesting bird(s) to vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest, then an exclusionary buffer shall be increased, as determined by the qualified biologist, such that activities are far enough from the nest to stop the agitated behavior. The

exclusionary buffer shall remain in place until the chicks have fledged or as otherwise determined by a qualified biologist.

Alternatively, vegetation removal could be scheduled to avoid all potential impacts. Vegetation removal conducted between September 1 and January 31 will prevent impacts to nesting birds and unfledged young.

- b,c,d. The surface of the proposed project site consists primarily of ruderal grasses. The site does not contain riparian habitat or wetland features, and does not contain waterways that would provide habitat for fish. Furthermore, the site is located in a highly-developed area and is surrounded by existing urban development. The site does not constitute a wildlife corridor or nursery site. Therefore, the proposed project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. In addition, the project would not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act, 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. As such, a *less-than-significant* impact would occur.
- The proposed project site contains eight trees, seven of which would be removed as part e. of the proposed development. Chapter 12 of Title 4 of the City Municipal Code (Preservation of Heritage Trees) includes regulations designed to preserve and protect heritage trees on private or city-owned property. In general, heritage trees are defined as any trees within the City of Pacifica, exclusive of eucalyptus, which have a trunk with a circumference of 50 inches (approximately 16 inches in diameter) or more, measured at 24 inches above the natural grade. Sections 4-12.02 and 4-12.03 of the Municipal Code provide a complete definition of a heritage tree. Per Sections 4-12.07 and 4-12.08 of the Municipal Code, tree protection plans are required when engaging in new construction within the drip-line of a heritage tree. The plan must be prepared by a qualified arborist, horticulturist, landscape architect or other qualified person. The City requires issuance of a tree removal permit prior to removal of heritage trees. All of the seven trees that would be removed as part of the proposed project meet the City's definition of heritage trees. Therefore, the proposed project could conflict with the City's Heritage Tree Ordinance, and a *potentially significant* impact could occur.

# Mitigation Measure(s)

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

IV-2. Prior to issuance of a grading or building permit, the project applicant shall obtain tree removal permits from the City of Pacifica Planning Department for any heritage trees to be removed. The project applicant shall obtain authorization from the City of Pacifica Planning Commission as part of the project permits/entitlements for any heritage trees requiring

removal. Prior to issuance of a certificate of occupancy, the project applicant shall complete planting of any replacement trees required as part of the tree removal permit. In addition, the project applicant shall prepare and submit a tree protection plan prior to the approval of tree removal permits in accordance with the City Municipal Code, Sections 4-12.02 through 4-12.11, and prior to commencement of any construction activity shall implement any tree protection measures identified to protect trees which will not be removed during construction.

f. Adopted Habitat Conservation Plans or Natural Community Conservation Plans which include the proposed project site do not exist. Therefore, the proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan, and *no impact* would occur.

	CULTURAL RESOURCES. ould the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less- Than- Significant Impact	No Impact
a.	Cause a substantial adverse change in the significance of a historical resource 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 dedicated cemeteries.		*		

The following discussion is based on a cultural resources investigation prepared for the proposed project by Tom Origer & Associates.<sup>6</sup>

a. Historical resources are typically features that are associated with the lives of historically important persons and/or historically significant events, or that embody the distinctive characteristics of a type, period, region or method of construction. Historic-period site indicators generally include: fragments of glass, ceramic, and metal objects; milled and split lumber; and structure and feature remains such as building foundations and discrete trash deposits (e.g., wells, privy pits, dumps).

The proposed project site does not contain any permanent structures that could be considered historical resources pursuant to Section 15064.5 of the CEQA Guidelines. As discussed in greater detail below, Tom Origer & Associates conducted multiple excavations on the project site to evaluate subsurface archaeological resources associated with a portion of archaeological site CA-SMA-71; however, the investigation did not yield any artifacts of historical significance. Therefore, the proposed project would not cause a substantial adverse change in the significance of a historical resource, and a *less-than-significant* impact would occur.

b-d. Per Tom Origer & Associates, the proposed project has been subjected to several phases of archaeological study. The earliest study of the property was conducted by Garcia and Associates in 2001 and consisted of archival research and field survey. Archival research showed that two resources were recorded on the immediately adjacent Sanchez Adobe Park. The two resources, the Sanchez Adobe building and archaeological site CA-SMA-71, are listed on the National Register. The archaeological site is thought to represent the remains of the village of Pruristac. The 2001 field survey resulted in the identification of

Tom Origer & Associates. Investigations at a portion of Site CA-SMA-71 within the parcel at 1335 Adobe Drive, Pacifica, San Mateo, California. May 11, 2018.

potential archaeological site indicators, predominantly consisting of marine shell. Based on the proximity of the known resources and field observations, it was concluded that the potential to encounter prehistoric and historic period archaeological deposits on the proposed project site was relatively high, and Garcia and Associates recommended that an archaeologist be present for all ground disturbing activities.

Garcia and Associates conducted archaeological monitoring of geotechnical borings later in 2001. Two borings were placed in the northwest corner of the proposed project site. Artifacts were not recovered from the geotechnical cores; however, it was maintained that the potential to encounter archaeological resources was high. It was reasoned that resources may be buried under alluvial or colluvial deposits, or obscured due to recent disturbances on the property (i.e., building demolition, tree removal). Recommendations included archaeological monitoring of ground disturbing activity and archaeological testing to definitively determine the presence or absence of archaeological phenomena on the lot. In 2005, Scott Bryme, Ph.D., prepared a site record form that shows the southeastern portion of proposed project site being located within the boundary of CA-SMA-71.

Following the aforementioned studies, Archaeo-Tec conducted a study of the project site in 2003. Subsurface investigation at CA-SMA-71 consisted of the excavation of 19 auger holes placed throughout the parcel and one two-meter square excavation unit. It was stated that conclusive evidence of the presence of a prehistoric archaeological deposit was present on the surface and that a subsurface archaeological deposit extended across most of the property. The area lacking archaeological evidence was the northwestern portion of the proposed project site, the same area Dr. Bryme had previously concluded lacked archaeological evidence.

In June of 2017, ground-penetrating radar was conducted on the site under contract with Tom Origer & Associates in order to identify possible subsurface archaeological resources. Analysis of GPR data revealed 12 possible feature locations. The features exhibited characteristics that were interpreted by Dr. Byram including the following: adobe wall foundations, pits, buried strata, and midden lamina. Subsequent to completion of the GPR study, eight units were excavated on the project site in 2018, including 50x50 centimeter units, 50x100 centimeter units, and one-meter square units, from which 15 archaeological specimens were obtained: seven obsidian waste flakes and eight chert waste flakes. Midden soils were not observed in any of the eight units. Analysis of the limited collection unearthed found evidence of Upper Emergent and Lower Emergent period use and early- to midstage tool-making in the part of the site that was excavated. Shell specimens were predominantly *Mytilus ca/ifornianus*, with lesser amounts of *Ba/anus*, and *Macoma nasuta*, which are marine shellfish species common to the coast and bays of California. A detailed summary of the archaeological materials as a result of the excavations is provided in the text of the 2018 cultural resource investigation.

Excavation of six units within the proposed project site found that the archaeological deposit is a shallow and sparse part of site CA-SMA-71. The investigation conducted by Tom Origer & Associates was designed to evaluate the importance of the deposit within

the project site. Because the site deposit's integrity was compromised by the addition of abundant modern items and the yield of archaeological specimens was sparse, the deposit within the proposed project site cannot convey its importance in prehistory and is considered a noncontributing component to CA-SMA-71. Therefore, pursuant to CEQA Guidelines 15064.5(b), development of the proposed residential project would not have an effect that may cause a substantial adverse change in the significance of the site. Per Tom Origer & Associates, further study is not recommended for the small part of the site where archaeological resources were recovered. However, because the adjacent Sanchez Adobe Park is known to contain human skeletal remains, Tom Origer & Associates recommended that archaeological and Native American monitors be present during ground disturbing activities associated with the project.

Based on the above, development of the proposed project would not cause a substantial adverse change in the significance of site CA-SMA-71. Nonetheless, human remains could be uncovered during ground-disturbing activities associated with construction of the proposed project. Therefore, the project could result in a *potentially significant* impact with respect to causing a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5 and/or disturbing human remains.

#### Mitigation Measure(s)

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

V-1. During ground-disturbing activities associated with development of the proposed project, archaeological and Native American monitors shall be present at the site. In the event of the accidental discovery or recognition of any human remains, further excavation or disturbance of the find or any nearby area reasonably suspected to overlie adjacent human remains shall not occur until compliance with the provisions of CEOA Guidelines Section 15064.5(e)(1) and (2) has occurred. The Guidelines specify that in the event of the discovery of human remains other than in a dedicated cemetery, no further excavation at the site or any nearby area suspected to contain human remains shall occur until the County Coroner has been notified to determine if an investigation into the cause of death is required. If the Coroner determines that the remains are Native American, then, within 24 hours, the Coroner must notify the Native American Heritage Commission, which in turn will notify the most likely descendants who may recommend treatment of the remains and any grave goods. If the Native American Heritage Commission is unable to identify a most likely descendant or most likely descendant fails to make a recommendation within 24 hours after notification by the Native American Heritage Commission, or the landowner or his authorized agent rejects the recommendation by the most likely descendant and mediation by the Native American Heritage Commission fails to provide a measure acceptable to the landowner, then the landowner or his authorized representative shall rebury the human remains and grave goods with

appropriate dignity at a location on the property not subject to further disturbances. If human remains are encountered, a copy of the resulting County Coroner report noting any written consultation with the Native American Heritage Commission shall be submitted as proof of compliance to the City of Pacifica Planning Department.

V-2. If any prehistoric or historic artifacts, or other indications of cultural deposits, such as historic privy pits or trash deposits, are found once ground disturbing activities are underway, all work within the vicinity of the find(s) shall cease and the find(s) shall be immediately evaluated by a qualified archaeologist. If the find is determined to be a historical or unique archaeological resource, contingency funding and a time allotment to allow for implementation of avoidance measures or appropriate mitigation shall be made available (CEQA Guidelines Section 15064.5). Work may continue on other parts of the project site while historical or unique archaeological resource mitigation takes place (Public Resources Code Sections 21083 and 21087).

The requirements of mitigation measures V-1 and V-2 shall be included via notation on all project improvement plans and building permit plans.

	GEOLOGY AND SOILS. uld the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less- Than- Significant Impact	No Impact
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	П	П	*	
	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	П	*	П	
	liquefaction?			••	
	iv. Landslides?	Ш	Ш	*	Ш
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			*	
0	18-1B of the Uniform Building Code? Have soils incapable of adequately supporting the				
e.	use of septic tanks or alternative wastewater				**
	disposal systems where sewers are not available for	Ш		Ш	*
	the disposal of waste water?				

The following discussion is based on the Geotechnical Investigation prepared for the proposed project by Romig Engineers, Inc.<sup>7</sup>

a.i-ii. According to the Geotechnical Investigation, known faults have not been mapped within or adjacent to the proposed project site, and the site is not located within a State of California Earthquake Fault Zone, an area where the potential for fault rupture is considered probable. The closest known active faults are the San Gregorio and San Andreas faults, which are located approximately 1.9 miles southwest and 3.4 miles northeast of the site, respectively. Thus, the likelihood of surface rupture occurring due to active faulting at the site is low.

However, the San Francisco Bay Area (SF Bay Area) is an active seismic region. Historically, the SF Bay Area has experienced large, destructive earthquakes in 1838,

Romig Engineers, Inc. Geotechnical Investigation, 7-Unit Townhome Development, 1335 Adobe Drive, Pacifica, California, 94044. July 2015.

1868, 1906, and 1989. The faults considered most likely to produce large earthquakes in the area include the San Andreas, San Gregorio, Hayward, and Calaveras faults. Of the four faults, the Hayward and Calaveras faults are nearest to the site. The faults are located approximately 22 and 31 miles northeast of the site, respectively.

The Working Group On California Earthquake Probabilities, a panel of experts that are periodically convened to estimate the likelihood of future earthquakes based on the latest science and ground motion prediction modeling, concluded there is a 72 percent chance of at least one earthquake of Magnitude 6.7 or larger occurring in the SF Bay Area before 2045. <sup>8</sup> The likelihood of the Hayward Fault producing an earthquake greater than or equal to magnitude 6.7 in the SF Bay Area is estimated at 14 percent, while the likelihood of the San Andreas and Calaveras faults producing such an earthquake is estimated at approximately six and seven percent, respectively.

All structures included in the proposed project would be designed in accordance with the adopted edition of the California Building Code (CBC) requirements in place at the time of construction. Structures built according to the seismic design provisions of current building codes 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. Given the project's adherence to the CBC requirements, the proposed project would not expose people or structures to substantial adverse effects including the risk of loss, injury, or death involving the rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zone Map, or strong seismic ground shaking. Therefore, the proposed project would have a *less-than-significant* impact.

- a.iv. Seismically-induced landslides are triggered by earthquake ground shaking. The risk of landslide hazard is greatest in areas with steep, unstable slopes. The proposed project site and immediate site vicinity are located in an area that slopes gently downward to the west. Due to the absence of steep slopes on or near the site, landslides are not likely to occur on- or off-site as a result of the proposed project. Thus, the proposed project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides, and a *less-than-significant* impact would occur.
- a.iii. c. The proposed project's potential effects related to seismic-related ground failure, including liquefaction, as well as the potential for on- or off-site, lateral spreading, subsidence, or collapse, are discussed below.

### Liquefaction and Subsidence

Severe ground shaking during an earthquake can cause loose to medium dense granular soils to densify. If the granular soils are below the ground water table, their densification

<sup>&</sup>lt;sup>8</sup> Romig Engineers, Inc. Geotechnical Investigation, 7-Unit Townhome Development, 1335 Adobe Drive, Pacifica, California, 94044 [pg. 5]. July 2015.

can cause increases in pore water pressure, which can lead to soil softening, liquefaction, and ground deformation. Soils most prone to liquefaction are saturated, loose to medium dense, silty sands and sandy silts with limited drainage, and, in some cases, sands and gravels that are interbedded with, or that contain, seams or layers of impermeable soil. The Geotechnical Investigation included an evaluation of existing on-site soils and an analysis of the potential for liquefaction occurrence on-site.

Site reconnaissance and subsurface exploration were performed on June 30, 2015 as part of the Geotechnical Investigation. Subsurface exploration was performed using a Mobile B-40 truck-mounted drill rig equipped with 8-inch diameter hollow-stem augers. Three exploratory borings were advanced to depths ranging from 20 to 35 feet. The borings were labeled Boring EB-1, EB-2, and EB-3. The results of the three borings are discussed below.

At the location of Boring EB-1, which was advanced near the southern portion of the site, soils included approximately 9.5 feet of stiff sandy lean clay of low to moderate plasticity underlain by 10 feet of stiff fat clay of high plasticity. At a depth of approximately 19.5 feet, the fat clay was underlain by stiff sandy lean clay and medium dense to dense clayey sand extending to the maximum depth of the boring (30 feet). The clayey sand was generally encountered between depths of about 23.5 to 28.5 feet. At the location of Boring EB-2, which was advanced near the east corner of the site, stiff to very stiff sand lean clay of low to moderate plasticity was encountered. The clay extended to the maximum depth explored (20 feet). At the location of Boring EB-3, which was advanced near the north corner of the site, stiff sandy lean clay varying in low to high plasticity was encountered. The clay extended to the maximum depth explored (35 feet). In addition, some medium dense clayey sand was encountered between depths of approximately 11.0 to 14.5 feet and 22.0 to 24.5 feet.

In order to evaluate the potential for earthquake-induced liquefaction of the soils at the site, the Geotechnical Investigation included a liquefaction analysis of the boring results discussed above. The results of the analysis indicate that the medium dense clayey sands encountered in Borings EB-1 and EB-3 are susceptible to liquefaction when subjected to a peak ground acceleration (PGA) of 0.804g. Based on the results of the analysis, a total settlement of up to approximately 1.75 inches could occur within such soils during severe ground shaking events. According to the Geotechnical Investigation, differential settlement on the order of approximately one inch across a horizontal distance of approximately 50 feet is possible from liquefaction during seismic shaking. Therefore, mitigation would be required to ensure proper construction of foundations resistant to subsidence effects.

### Lateral Spreading

Lateral spreading is associated with terrain near free faces such as excavations, channels, or open bodies of water. Because the topography of the proposed project site does not include steep slopes, and because steep slopes or other related features do not exist nearby, the potential for lateral spreading within the site is low.

## Conclusion

Based on the above discussion, the proposed project would not result in lateral spreading. However, the project would be located on soils that are at risk for liquefaction. Without implementation of proper mitigation, subsidence could occur as a result of such liquefaction, and the integrity of the proposed structures could be compromised. Therefore, a *potentially significant* impact could occur.

### Mitigation Measure(s)

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

- VI-1. All grading and foundation plans for the development shall be designed by a Civil and Structural Engineer and reviewed and approved by the 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 Investigation are properly incorporated and utilized in the project design.
- b. The project site currently consists primarily of ruderal grasses and limited amount of vegetation. Development of the proposed project would cause substantial ground disturbance of top soil. The ground disturbance would be primarily limited to the areas proposed for grading and excavation, including the residential building pads as well as stormwater, sewer, and water infrastructure improvements. After grading and excavation, and prior to overlaying the disturbed ground surfaces with impervious surfaces and structures, the potential exists for wind and water erosion to occur, which could adversely affect downstream storm drainage facilities.

Without implementation of appropriate Best Management Practices (BMPs) related to prevention of soil erosion during construction, development of the project could result in a *potentially significant* impact with respect to soil erosion.

# Mitigation Measure(s)

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

VI-2. Prior to issuance of a grading permit, the project applicant shall submit, for review and approval by the City Engineer, an erosion control plan that utilizes standard construction practices to limit erosion effects during construction of the proposed project. The erosion control plan shall be inspected, modified, and/or remediated during the rainy season in order to comply with regulatory requirements. Measures shall include, but are not limited to, the following:

- Hydro-seeding;
- Placement of erosion control measures within drainageways and ahead of drop inlets;
- The temporary lining (during construction activities) of drop inlets with "filter fabric" (a specific type of geotextile fabric);
- The placement of straw wattles along slope contours;
- Directing subcontractors to a single designation "wash-out" location (as opposed to allowing them to wash-out in any location they desire);
- The use of siltation fences; and
- The use of sediment basins and dust palliatives.
- d. Expansive soils shrink/swell when subjected to moisture fluctuations, which can cause heaving and cracking of slabs-on-grade, pavements, and structures founded on shallow foundations. Building damage due to volume changes associated with expansive soils can be reduced by performing proper moisture conditioning and compaction of fill materials within selected ranges to reduce their swell potential, and using structurally reinforced "rigid" mats or post-tensioned mats designed to resist the deflections associated with soil expansion.

The proposed project would be subject to the requirements of the CBC, which includes provisions related to expansive soils. In addition, the Geotechnical Report includes specific recommendations regarding the use of non-expansive fill on-site. Without implementation of the recommendations contained in the Geotechnical Investigation, a *potentially significant* impact could occur related to being located on expansive soils.

### Mitigation Measure(s)

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

### *VI-3. Implement Mitigation Measure VI-1.*

e. The proposed project would connect to the City's existing sewer system, and would not require the use of a septic tank or other alternative waste water disposal method. Therefore, *no impact* would occur related to having soils incapable of adequately supporting the use of septic tanks or alternate waste water disposal systems.

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

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

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

A number of regulations currently exist related to GHG emissions, predominantly Assembly Bill (AB 32), Executive Order S-3-05, and Senate Bill (32). AB 32 sets forth a statewide GHG emissions reduction target of 1990 levels by 2020. Executive Order S-3-05 sets forth a transitional reduction target of 2000 levels by 2010, the same target as AB 32 of 1990 levels by 2020, and further builds upon the AB 32 target by requiring a reduction to 80 percent below 1990 levels by 2050. SB 32 also builds upon AB 32 and sets forth a transitional reduction target of 40 percent below 1990 levels by 2030. In order to implement the statewide GHG emissions reduction targets, local jurisdictions are encouraged to prepare and adopt area-specific GHG reduction plans and/or thresholds of significance for GHG emissions.

A discussion applicable BAAQMD thresholds related to GHG emissions, as well as the City's Climate Action Plan (CAP), is provided below.

### BAAQMD Thresholds

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<sub>2</sub>e/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 City of Pacifica, as lead agency, has chosen to use the BAAQMD thresholds of significance for the analysis within this document, as the thresholds are supported by substantial evidence.

The proposed project's operational GHG emissions were quantified using CalEEMod under the same assumptions as presented in the Air Quality section of this IS/MND. The proposed project's required compliance with the current California Building Energy Efficiency Standards Code was assumed in the modeling. In addition, the CO<sub>2</sub> intensity factor within the model was adjusted to reflect the Pacific Gas & Electric Company (PG&E)'s anticipated progress towards statewide renewable portfolio standards goals. All CalEEMod results are included in the appendix to this IS/MND.

According to the CalEEMod results, the proposed project would result in operational GHG emissions as shown in Table 4.

Table 4 Unmitigated Project Operational GHG Emissions					
Emission Source Annual GHG Emissions (MTCO <sub>2</sub> e/yr)					
Area	0.56				
Energy	14.78				
Mobile	34.99				
Solid Waste	1.62				
Water	1.27				
TOTAL ANNUAL GHG EMISSIONS	53.22				
Source: CalEEMod, 2017 (see appendix).					

As shown in the table, the proposed project would result in operational GHG emissions below the 1,100 MT CO<sub>2</sub>e/yr threshold. Therefore, the proposed project would not result in operational impacts related to GHG emissions.

It should be noted that neither the City nor BAAQMD have adopted a threshold of significance for construction-related GHG emissions. Construction GHG emissions are a one-time release and are, therefore, not typically expected to generate a significant contribution to global climate change. Based on such, and due to the size of the proposed project and typical construction activities associated with buildout of the project, construction emissions would not have a significant impact on the environment. In addition, construction of the proposed project would not conflict with any applicable

plan, policy or regulation adopted for the purpose of reducing the emissions of GHG.

## Climate Action Plan

The City of Pacifica has adopted a CAP that is intended to guide reduction of GHG emissions associated with existing operations and future development in the City. Based on the GHG emission reduction targets for the City, the City's estimated Business As Usual GHG emissions, and the projected population of the City, the CAP sets forth per capita GHG emissions reduction targets. At the year 2020, the CAP's per capita GHG emission reduction target is 3.0 MTCO<sub>2</sub>e/yr per person. The CAP also includes a per capita GHG emission reduction target for the year 2050 of 0.8 MTCO<sub>2</sub>e/yr per person. Therefore, in order to demonstrate compliance with the CAP, the proposed project would have to show consistency with the City CAP's GHG emission reduction per capita targets.

The regulatory environment associated with climate change continues to become more stringent, and technological advancements for the reduction of GHG emissions are ever-evolving. Because the impact of legislation and policy that has yet to come is impossible to predict, an accurate prediction of 2050 project-related emissions is not possible. Accordingly, the future regulations that may be in place in the year 2050 could substantially reduce project emissions at that time, but are currently unknown and cannot be reasonably predicted or quantified. Furthermore, the proposed project would be built out and would have been fully operational for a number of years by 2050. Accordingly, this analysis focuses on the proposed project's compliance with the 2020 per capita GHG emission reduction target set forth in the City's CAP.

As discussed above, the proposed project's construction and operational emissions were quantified using CalEEMod in order to determine consistency with established BAAQMD GHG emission thresholds. The modeling assumed an operational year of 2019 based on phasing information provided by the project applicant. However, in order to determine consistency with the City's CAP, the project's operational GHG emissions have been modeled for the year 2020.

According to CalEEMod results, the proposed project would result in operational GHG emissions of 56.30 MTCO<sub>2</sub>e/yr for the year 2020. According to the City's Housing Element, the average persons per household in the City is 2.65. Based on the City's average persons per household and the proposed project's seven units, approximately 19 new residents would be associated with the proposed project. Accordingly, the proposed project's per capita 2020 GHG emissions would be 2.96 MTCO<sub>2</sub>e/yr per person in the year 2020, which would be below the 3.0 MTCO<sub>2</sub>e/yr per person GHG emission reduction target for 2020 set forth in the City's CAP. Therefore, the proposed project would be considered consistent with the City CAP's GHG emission reduction per capita targets.

<sup>&</sup>lt;sup>9</sup> City of Pacifica. *Housing Element: 2015-2023* [pg. 7]. Adopted May 11, 2015.

## Conclusion

Based on the above, the proposed project would be consistent with the City's adopted CAP. In addition, the estimated annual operational and construction GHG emissions would be below the applicable BAAQMD thresholds of significance. Therefore, 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. Accordingly, the proposed project would have a *less-than-significant* impact related to GHG emissions and global climate change.

	II. HAZARDS AND HAZARDOUS  MATERIALS.  buld the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			*	
b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?			*	
c.	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			*	
d.	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			*	
e.	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard 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?			*	

a,b,d. The following discussion addresses potential hazards associated with existing site conditions, as well as the potential use of hazardous materials during operation of the project.

# Existing Site Conditions and Associated Hazards

The proposed project site is currently vacant and does not contain any existing permanent structures. Per a memo prepared for the project site by Archeo-Tec consulting archaeologists, the proposed project site was previously developed with a structure since

the mid-20<sup>th</sup> century. <sup>10</sup> However, the structure was demolished circa 2000. The site does not contain wells, septic systems, chemicals, or any other potentially hazardous materials that could pose a risk to humans or the environment. The presence of undiscovered hazardous materials on the site is highly unlikely given the existing site usage.

Surrounding development consists of residential development and a small commercial plaza (Adobe Plaza). Adobe Plaza contains a small market (Sun Valley Dairy), an acupuncture center, a mobile phone dealership, and other similar commercial developments. None of the commercial developments would be anticipated to handle significant quantities of hazardous materials. In addition, the site area is not included in the California Department of Toxic Substances Control EnviroStor Database.<sup>11</sup>

The California State Water Resources Control Board GeoTracker system contains records for sites that require cleanup, such as Leaking Underground Storage Tank (LUST) Sites, Department of Defense Sites, and Cleanup Program Sites. GeoTracker also contains records for permitted facilities such as Irrigated Lands, Oil and Gas production, operating Permitted USTs, and Land Disposal Sites. According to the GeoTracker database, a LUST site is located approximately 1,000 feet southeast of the proposed project site at the Pacifica Fire Department Station #2 on Linda Mar Blvd. However, cleanup of the LUST site has been completed as of 2012, and, thus, the LUST site would not pose a hazard to future residents residing at the proposed project site. Overall, the proposed project site does not contain any existing hazards or hazardous materials.

# Uses Associated with the Proposed Project

During construction, all on-site personnel would be required to use, store, and transport hazardous materials in compliance with federal, State, and local regulations. Significant risks to the public or workers are not expected with the assumption that such products would be used, transported, and disposed of properly in accordance with the handling instructions on their labels and in accordance with all applicable regulations.

During operation, the proposed residential uses would not involve the routine transport, use, or dispose of hazardous materials, or present a reasonably foreseeable release of hazardous materials. Hazardous materials associated with the residential uses would consist mostly of typical household-type cleaning products, which would be utilized in small quantities and in accordance with label instructions.

# Conclusion

Hazardous materials have not been noted within the proposed project site area, and the site is not likely to contain existing undiscovered hazardous materials. During

Archeo-Tec. Review of Previous Archaeological Investigations and Recommendations for Further Archaeological Investigation at 1335 Adobe Drive, City of Pacifica, San Mateo County, California. May 15, 2015

California Department of Toxic Substances Control. *Hazardous Waste and Substances Site List*. Available at: http://www.dtsc.ca.gov/SiteCleanup/Cortese\_List.cfm. Accessed December 14, 2016.

construction and operation of the proposed project, small quantities of hazardous materials may be used. However, such substances would be handled appropriately and would be typical of similar residential developments. Overall, the proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment. In addition, the project would not be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Thus, a *less-than-significant* impact would occur.

- c. The school nearest the project site, Alma Heights Christian School, is located approximately 150 feet to the east of the project site across Linda Mar Blvd. However, the proposed single-family residential uses would not involve the routine transport, use, or dispose of hazardous materials, or present a reasonably foreseeable release of hazardous materials. Therefore, a *less-than-significant* impact would occur.
- e,f. The nearest airport relative to the proposed project site, Half Moon Bay Airport, is located approximately five miles south of the site. In addition, the project site is located approximately 5.7 miles west of San Francisco International Airport. According to the San Mateo County Comprehensive Airport Land Use Compatibility Plan (ALUCP), the site is not located within an Airport Safety Zone for Half Moon Bay Airport, and, thus, would not be significantly affected by the airport. Per the Comprehensive Airport Land Use Plan for the Environs of San Francisco International Airport (SFO Plan), the proposed project site does not lie within designated Safety Compatibility Zones or forecasted noise contours for the airport. Therefore, the proposed project would not result in a safety hazard for people residing or working in the project area, and a *less-than-significant* impact would occur.
- g. Implementation of the proposed project site would not result in any modifications to the existing roadway system and would not interfere with potential evacuation or response routes used by emergency response teams. Emergency vehicle access to the site would be provided by the proposed internal roadway (Adobe Court) connecting to Adobe Drive. During project development, all construction equipment would be staged on-site so as to prevent obstruction of Adobe Drive. In addition, the project would not conflict with policies outlined in the adopted General Plan and the General Plan Update for managing emergency situations. Therefore, the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, and a *less-than-significant* impact would occur.
- h. The proposed project site is located in a highly-developed area and is not adjacent to wildlands. Per the CAL FIRE Fire and Resources Assessment Program, the proposed project is not located in a Very High Fire Hazard Severity Zone (VHFHSZ). Overall, the

<sup>&</sup>lt;sup>12</sup> San Mateo County. Comprehensive Airport Land Use Compatibility Plan. December 1996.

<sup>&</sup>lt;sup>13</sup> City/County Association of Governments of San Mateo County, California. *Comprehensive Airport Land Use Plan for the Environs of San Francisco International Airport*. July 2012.

project would result in a *less-than-significant* impact related to exposure of people or structures to the risk of loss, injury or death involving wildland fires.

IX. HYDROLOGY AND WATER QUALITY. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements?		*		
<ul> <li>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</li> </ul>			*	
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 onor 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?			*	

a,c-f. All municipalities within San Mateo County (and the County itself) are required to develop more restrictive surface water control standards for new development projects to comply with Provision C.3 of the RWQCB Municipal Regional Stormwater NPDES Permit order No. R2-2015-0049. The San Mateo Countywide Water Pollution Prevention

Program developed a C.3 Stormwater Technical Guidance document for implementing the RWQCB Municipal Regional Stormwater NPDES Permit C.3 requirements, known as the C.3 Standards. The City of Pacifica has adopted the County C.3 Stormwater Standards, which require new development and redevelopment projects that create or alter 10,000 or more square feet of impervious area to contain and treat all stormwater runoff from the project site. Given that the proposed project would create approximately 10,683 square feet of impervious area, the project is a C.3 regulated project, the proposed project would be subject to the requirements of the RWQCB, including the C.3 Standards, which are included in the City's NPDES General Permit.

Consistent with C.3 requirements, the proposed project would include a series of coordinated Low Impact Development (LID) Site Design Measures to remove pollutants, slow runoff, and release runoff to the downstream storm drain system at a level comparable to the pre-development flow volume. The proposed project would include five C.3 areas or Drainage Management Areas (DMAs), each of which would contain a rain garden area for water quality treatment purposes, except for DMA-E, which would include 2,770 sf of pervious pavement and function as a self-treating area (see Figure 15). Runoff from the rooftops of the proposed structures as well as a majority of the proposed private and public open space areas would drain to DMA-A, -B, -C, and -D. The four DMAs would be sized for treatment and flow control of runoff. Runoff from Adobe Court and the proposed parking areas, as well as a portion of the proposed landscaped areas, would be collected at DMA-E. The pervious pavement within DMA-E would allow for runoff to infiltrate underlying soils in a manner similar to what currently occurs on-site. The proposed LID features would be designed to the standards for bio-retention treatment systems and pervious pavement detailed in Section 6.1, Bioretention Areas, and Section 6.6, Pervious Pavement, of the C.3 Stormwater Technical Guidance.

A C.3 Development Review Checklist has been prepared for the proposed project and subsequently peer reviewed by Balance Hydrologics, Inc.<sup>15</sup> The peer review concluded that the proposed bio-treatment facilities would provide sufficient area sizing to meet water quality and flow control requirements of the C.3 regulations. Prior to final design, the project applicant would be required by the City to provide additional information regarding groundwater depth and infiltration capacity of on-site soils.

In order to ensure that the proposed project's rain gardens and pervious pavement areas continue to adequately treating runoff following project implementation, long-term maintenance of the LID features would be necessary. Consequently, the San Mateo Countywide Pollution Prevention Program would require the project applicant to prepare a maintenance plan and enter into a maintenance agreement with the applicable municipality to assure long-term maintenance of the proposed treatment measures. <sup>16</sup>

Balance Hydrologics, Inc. Peer Review of C.3 Stormwater Compliance for the 1335 Adobe Drive Project, City of Pacifica. January 7, 2017.

San Mateo Countywide Water Pollution Prevention Program. *C.3 Stormwater Technical Guidance* [pg. 8-1 to 8-12]. June 2016.

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San Mateo Countywide Water Pollution Prevention Program. *C.3 Stormwater Technical Guidance*. June 2016.

Additionally, 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

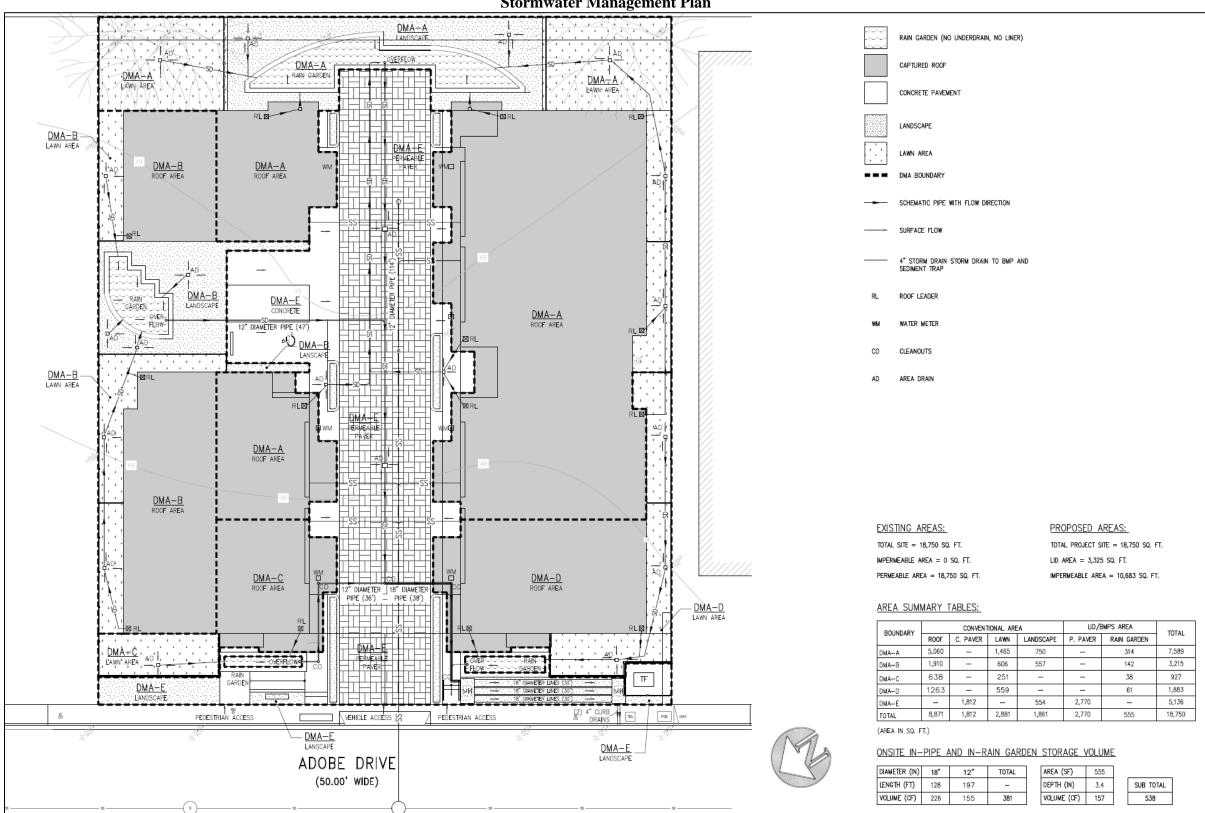


Figure 15 Stormwater Management Plan

impervious surfaces and structures, the potential exists for wind and water erosion to discharge sediment, urban pollutants, and/or residual pesticides into stormwater runoff, which would adversely affect water quality. The State Water Resources Control Board (SWRCB) regulates stormwater discharges associated with construction activities where clearing, grading, or excavation results in a land disturbance of one (1) or more acres. The project site is 0.43 acres, and, thus, construction activities would not be regulated by the SWRCB. However, the San Mateo Countywide Pollution Prevention Program provides a list construction BMPs. All applicable from the list BMPs are required for projects involving construction within the County. Should the project applicant fail to implement BMPs, pollutants from construction activities could runoff into local waterways and degrade water quality.

Because the proposed project would comply with C.3 standards, the proposed project would not substantially alter the existing drainage pattern of the site or area in a manner which would result in erosion, siltation, or flooding on- or off-site, or 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. However, should the project fail to implement construction BMPs and develop a maintenance plan for the proposed LID Site Design Measures, the proposed project could violate water quality standards or waste discharge requirements and could substantially degrade water quality. As such, a *potentially significant* impact would occur.

### Mitigation Measure(s)

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

- IX-1. During construction, the contractor shall implement BMPs to reduce pollutants in stormwater discharges to the maximum extent practicable, which may include but are not necessarily limited to the following practices, or other BMPs identified in the California Stormwater Quality Association (CASQA) Construction BMP Handbook.
  - Temporary erosion control measures (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) shall be employed to control erosion from disturbed areas;
  - Inactive construction areas (previously graded areas inactive for 10 days or more) that could contribute sediment to waterways shall be covered or treated with nontoxic soil stabilizers;

San Mateo Countywide Water Pollution Prevention Program. *Construction Best Management Practices*. Available at: http://www.cityofpacifica.org/depts/planning/stormwater\_compliance/default.asp. Accessed January 4, 2017.

- Exposed stockpiles of dirt or other loose, granular construction materials that could contribute sediment to waterways shall be enclosed or covered;
- The contractor shall ensure that no earth or organic material will be deposited or placed where it may be directly carried into a stream, marsh, slough, lagoon, or body of standing water;
- The following types of materials shall not be rinsed or washed into the streets, shoulder areas, or gutters: concrete, solvents and adhesives, thinners, paints, fuels, sawdust, dirt, gasoline, asphalt and concrete saw slurry, and heavily chlorinated water; and
- Grass or other vegetative cover shall be established on the construction site as soon as possible after disturbance.
- IX-2. The applicant shall submit, with the application of building permits, a draft Stormwater Facilities and Maintenance Plan, including detailed maintenance requirements and a maintenance schedule for the review and approval by the City of Pacifica Planning Department. Typical routine maintenance consists of the following:
  - *Inlets and outlets shall be inspected for erosion or plugging.*
  - Clear any obstructions and remove accumulation of sediment. Examine rock or other materials used as a splash pad and replenish as necessary.
  - Inspect slopes for evidence of erosion and correct as necessary.
  - Examine vegetation to verify health and suitability for use as erosion control.
  - Replenish mulch as necessary, remove fallen leaves and debris, prune large shrubs or trees, and mow turf areas.
  - Abate any potential vectors by filling holes in the ground, in and around the swale, and by ensuring that water does not pool for longer than 48 hours following a storm.
  - Mosquito larvicides shall be applied only when absolutely necessary and then only by a licensed contractor.
  - Observe soil at the bottom of the filter for percolation throughout the system. If portions of the swale or filter do not drain within 48 hours after the end of the storm, the soil should be tilled and replanted.
  - Examine the vegetation to ensure that it is healthy and dense enough to provide filtering and to protect soils from erosion. Replace dead plants and remove invasive vegetation.

at

- b. The proposed project would receive water service from the NCCWD. The NCCWD does not currently rely on groundwater wells for water supply. <sup>18</sup> As such, groundwater supplies would not be used to serve the proposed project. In addition, although the proposed project would introduce new impervious areas, the proposed project would include rain gardens and pervious pavement that would allow for a moderate amount of rainfall to percolate into the underlying soils and contribute towards groundwater recharge. Therefore, the proposed project would not 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, and impacts would be *less than significant*.
- g-i. According to the October 16, 2012 FEMA Flood Insurance Rate Maps (FIRM), Panel ID 06081C0128E, the proposed project site is located within Flood Hazard Zone X, which is described by FEMA as an area of minimal flood hazard, usually above the 500-year flood level. Thus, development of the proposed project would not place housing within a 100-year flood hazard zone nor place structures within a 100-year floodplain that would impede or redirect flood flows, and restrictions on development or special requirements associated with flooding are not requisite for the project. Furthermore, the site is not located near a dam or levee and would not be inundated in the event of failure of such structures. Overall, the proposed project would not expose people or structures to a risk of loss, injury, or death involving flooding, including flooding as a result of a failure of a levee or dam, and impacts would be *less than significant*.
- j. A tsunami is a series of sea waves most commonly caused by an earthquake beneath the sea floor. As the waves enter shallow water, they may rise rapidly, causing property damage, injury, and potentially loss of life. The proposed project site is located approximately 0.9 mile from the ocean. However, according to the City's tsunami inundation zone map, the proposed project is not at risk for inundation by tsunami. 19

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. The project site is located over three miles west of the nearest closed body of water, San Andreas Lake, and, as such, would not be expected to be risk of inundation from seiche.

Mudflow events are caused by a combination of factors, including soil type, soil profile, precipitation, and slope. Mudflow may be triggered by heavy rainfall that the soil is not able to sufficiently drain or absorb. Mudflows typically occur in mountainous or hilly terrain. The project site is relatively flat and is not located along a ridgeline, on a hillside, or in an open space area. In addition, the site is located in a highly-developed area. Therefore, the project site would not be expected to be risk of inundation from mudflow.

North Coast County Water District. 20-Year Long-Term Water Master Plan. February 2016.

City of Pacifica. *Tsunami Preparedness*. Available http://www.cityofpacifica.org/depts/police/natural\_disasters/tsunami.asp. Accessed December 14, 2016.

Overall, the proposed project would result in a *less-than-significant* impact related to inundation by seiche, tsunami, or mudflow.

	LAND USE AND PLANNING. ould the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
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?				*

- a. The proposed project would include the development of seven residential units on a vacant parcel. The surrounding area consists predominantly of residential development. Because the proposed project would be consistent with both the adopted General Plan and the General Plan Update, and because the site is surrounded by other similar residential development, the proposed project would not be considered to physically divide an established community, and a *less than significant* would occur.
- b. The proposed project site is designated by the adopted General Plan as High Density Residential and zoned R-3-G. High Density Residential land use designates an average of 16 to 21 dwelling units per acre (du/ac). The development of the proposed project would result in seven units on 0.43 acres, or 16.27 du/ac, and, thus, would be consistent with the existing land use designation.

The proposed project would be consistent with the development regulations for the R-3-G zoning designation as described in Section 9-4.652 of the City Municipal Code. Permitted uses within R-3-G-zoned areas include duplexes and multiple-family dwellings. Single-family dwellings within the R-3-G zoning district are permitted conditionally and require use permit approval. Thus, the proposed townhomes in the two-unit and four-unit buildings would be considered permitted uses as duplexes and multiple-family dwellings, respectively. The proposed 2,746-sf single-family dwelling would be subject to review by the City as a conditional use.

Overall, the project would not 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. As a result, a *less-than-significant* impact would occur.

c. The City is not located within the boundaries of any HCP or NCP; therefore, the proposed project would have *no impact* related to conflict with the provisions of an

adopted HCP, NCCP, or other approved local, regional, or State habitat conservation plan.

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

a,b. The State Division of Mines and Geology, indicates that the proposed project site does not contain any identified mineral resources of regional or Statewide significance (Mineral Resource Zone [MRZ] 2).<sup>20</sup> The General Plan recognizes the existence of mineral resources at the Pacifica Quarry, but does not address mineral resources elsewhere in the City. Overall, construction of the proposed project would not result in the loss of any known mineral resources or 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, and a *less-than-significant* impact would occur.

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Division of Mines and Geology. Generalized Mineral Land Classification Map of the South San Francisco Bay Production/Consumption Region. Published 1996.

	I. NOISE. ould the project result in:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
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?			*	

- a,c. The following discussion is based on an Environmental Noise Assessment (ENA) prepared by j.c. brennan and associates, Inc. for the proposed project.<sup>21</sup> The following terms are referenced in the ENA:
  - Decibel (dB): A unit of sound energy intensity. An A-weighted decibel (dBA) is a decibel corrected for the variation in frequency response to the typical human ear at commonly encountered noise levels. All references to decibels (dB) in this report will be A-weighted unless noted otherwise.
  - Day-Night Average Level (Ldn): The average sound level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 PM to 7:00 AM) hours.
  - Community Noise Equivalent Level (CNEL): The average sound level over a 24 hour period, with a penalty of 5 dB applied to noise occurring during daytime hours (7:00 AM to 10:00 PM) and a penalty of 10 dB applied to noise occurring during nighttime hours (10:00 PM to 7:00 AM).

j.c. brennan and associates, Inc. Adobe Drive Townhomes, City of Pacifica, California. August 22, 2017.

- Equivalent Sound Level (L<sub>eq</sub>): The average sound level over a given time-period.
- $\bullet$  Maximum Sound Level ( $L_{max}$ ): The maximum sound level over a given time-period.
- Median Sound Level ( $L_{50}$ ): The sound level exceeded 50 percent of the time a given time-period.

### **Existing Conditions**

Sensitive noise receptors in the project vicinity, as well as the existing noise environment of the project area, are discussed below.

### Sensitive Noise Receptors

Some land uses are considered more sensitive to ambient noise levels than others. Land uses often associated with sensitive receptors generally include residences, schools, libraries, hospitals, and passive recreational areas. Noise sensitive land uses are typically given special attention in order to achieve protection from excessive noise. Sensitivity is a function of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities involved.

In the immediate vicinity of the project site, sensitive land uses include the Sanchez Adobe County Park and Historical Site to the southeast, multi-family residential uses located along Adobe Drive to the south of the site and the single-family residential home located at the corner of Adobe Drive and Linda Mar Boulevard northeast of the site. In addition, the Alma Heights Middle School and High School is located approximately 420 feet to the southeast of the site, and the Alma Heights Christian Elementary School is located approximately 175 feet to the east along Seville Drive.

### Existing On-Site Ambient Noise Levels

In order to quantify existing ambient noise levels in the vicinity of the project site, short-term noise level measurements and continuous 24-hour noise level measurements were conducted as part of the noise analysis on the project site (see Figure 16 for noise measurement locations). The noise level measurements were conducted between January 5 and 6, 2017. Larson Davis Laboratories (LDL) Model 820 and 824 precision integrating sound level meters were used for the ambient noise level measurement survey. The meters were calibrated before and after use with an LDL Model CAL200 acoustical calibrator to ensure the accuracy of the measurements. Table 5 and Table 6 below provide a summary of the noise measurement results. As shown in the tables, the L<sub>dn</sub> at Site A was recorded as 54 dB for the continuous 24-hour noise level measurements.



Figure 16 Noise Measurement Locations

# Table 5 **Summary of Ambient Noise Level Measurements from** the Continuous 24-hour Noise Measurement Site

			Av	Average Measured Hourly Noise Levels (dBA)					
			Daytime (7 AM to 10 PM)			Nightim	e (10 PM 1	to 7 AM)	
Site	Date	L <sub>dn</sub>	$L_{eq}$	$L_{50}$	L <sub>max</sub>	$\mathbf{L}_{eq}$	$L_{50}$	L <sub>max</sub>	
Α	January 5-6, 2017	54	50	48	66	46	41	61	
Source: i.c. brennan and associates. Inc. 2017									

Table 6					
<b>Summary of Ambient Noise Level Measurements from</b>					
the Short-term Noise Measurement Sites					

		Average Measured Hourly Noise Levels (dB)					
Site	Date	$\mathbf{L}_{eq}$	$L_{50}$	$\mathbf{L}_{max}$	Time		
1	January 5, 2017	48	52	70	12:00 PM		
	January 6, 2017	46	52	65	11:00 AM		
2	January 5, 2017	47	53	74	12:30 PM		
	January 6, 2017	48	55	67	11:30 PM		
Source: j.c. brennan and associates, Inc., 2017.							

# Existing Roadway Noise Levels

To predict noise levels due to traffic, the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used. To calculate L<sub>dn</sub>, average daily traffic (ADT) volume data was adjusted based on the assumed day/night distribution of traffic on the project roadways. Traffic volumes for existing conditions were obtained in the form of peak hour intersection movements.

Table 7 Existing Traffic Noise Levels						
		Noise	<b>Distance from</b>	<b>Distance to Contours (feet)</b>		
		Levels	Centerline	70	65	60
Roadway	Segment	$(L_{dn}, dB)$	(feet)	L <sub>dn</sub> dB	L <sub>dn</sub> dB	L <sub>dn</sub> dB
Linda Mar Boulevard	Peralta Road to Adobe Drive	61.1	75	29	41	89
Linda Mar Boulevard	South of Adobe Drive	60.5	75	18	38	81
Adobe Drive	Rosita Drive to Linda Mar Boulevard	54.0	75	6	14	30
SR 1	Linda Mar Boulevard to Crespi Drive	68.5	75	60	129	278
SR 1	South of Linda Mar Boulevard	65.8	75	39	85	183
SR 1	North of Crespi Drive	68.5	75	59	128	275

Note:

Distances to traffic noise contours are measured in feet from the centerlines of the roadways.

Source: j.c. brennan and associates, Inc., 2017.

The PM peak hour traffic volumes were compiled into segment volumes and converted into daily traffic volumes. Truck usage and vehicle speeds on the local area roadways were estimated from field observations. Table 7 above summarizes the modeled existing traffic noise levels along each roadway segment in the project area.

### Significance Thresholds

The City's adopted General Plan does not establish specific noise limits for noise-generating uses. The City is currently in the process of preparing a General Plan Update and associated EIR; however, neither have been adopted. The noise level standards and guiding policies in the proposed City of Pacifica General Plan Update are consistent with the State guidelines for determining land use compatibility. Therefore, the goals, policies, and implementation measures contained within the Noise Element of the General Plan Update are used for the purposes of this analysis.

According to the ENA, based on the applicable State and local regulations regarding noise, including the State Building Code, the City's General Plan Update, General Plan Update EIR, and Noise Ordinance, the proposed project would be considered to result in a potentially significant impact related to noise if any of the following would occur:

- Exceedances of the City's 65 L<sub>dn</sub> dB threshold for residential single-family or multi-family land uses at the exterior of the proposed residential units or the backyards of the nearby single-family residences;
- Interior noise levels in excess of 45 dB CNEL/L<sub>dn</sub> in any habitable room; or
- Exceedances of the noise level performance standards for stationary noise sources provided in Table 8 below.

Table 8							
Noise Level Performance Standards for Stationary Noise Sources							
$\begin{array}{c cccc} Time & L_{eq} \ dB & L_{max} \ dB \end{array}$							
7:00 AM to 10:00 PM	50	70					
10:00 PM to 7:00 AM 45 65							
Source: j.c. brennan and associate	es, Inc., 2017.						

### Future Noise Environnent and Impacts Discussion

Traffic noise levels were predicted at locations that are assumed to be typical residential outdoor use areas along each roadway segment in the project area. Table 9 shows the predicted traffic noise level increases on the local roadway network for the Background conditions (Existing Plus Approved Projects) as compared to the Background Plus Project conditions. Table 10 shows the predicted traffic noise level increases on the local roadway network for the "Cumulative No Project" as compared to the "Cumulative Plus Project" conditions.

	Table 9											
	Background and Background Plus Project Traffic Noise Levels											
		Distance				В	ackgroun	d	Background Plus Project			
		from	Traffic No	oise Levels (L	<sub>ln</sub> , dB)	Distance	to Conto	urs (feet)	Distance	Distance to Contours (feet)		
		Centerline		Background		70	65	60	70	65	60	
Roadway	Segment	(feet)	Background	Plus Project	Change	L <sub>dn</sub> dB	L <sub>dn</sub> dB	L <sub>dn</sub> dB	L <sub>dn</sub> dB	L <sub>dn</sub> dB	L <sub>dn</sub> dB	
Linda Mar Boulevard	Peralta Road to Adobe Drive	75	61.1	61.2	0	29	41	89	29	41	89	
Linda Mar Boulevard	South of Adobe Drive	75	60.6	60.6	0	18	38	81	18	38	81	
Adobe Drive	Rosita Drive to Linda Mar Boulevard	75	54.5	54.5	0	6	14	30	6	14	30	
SR 1	Linda Mar Boulevard to Crespi Drive	75	68.6	68.7	+0.1	60	129	278	60	129	278	
SR 1	South of Linda Mar Boulevard	75	66.0	66.0	0	39	85	183	39	85	183	
SR 1	North of Crespi Drive	75	68.7	68.7	0	59	128	275	59	128	275	

Note:

Distances to traffic noise contours are measured in feet from the centerlines of the roadways.

Source: j.c. brennan and associates, Inc., 2017.

	Table 10										
	Cumulative No Project and Cumulative Plus Project Traffic Noise Levels										
		Distance					lative No l	•		ative Plus	•
		from	Traffic N	oise Levels (L	<sub>dn</sub> , dB)	Distance	to Conto	urs (feet)	<b>Distance to Contours (feet)</b>		
		Centerline	Cumulative	Cumulative		70	65	60	70	65	60
Roadway	Segment	(feet)	No Project	Plus Project	Change	L <sub>dn</sub> dB	L <sub>dn</sub> dB	L <sub>dn</sub> dB	L <sub>dn</sub> dB	L <sub>dn</sub> dB	L <sub>dn</sub> dB
Linda Mar Boulevard	Peralta Road to Adobe Drive	75	61.3	61.3	0	20	42	91	20	43	92
Linda Mar Boulevard	South of Adobe Drive	75	60.7	60.7	0	18	39	83	18	39	8/3
Adobe Drive	Rosita Drive to Linda Mar Boulevard	75	54.7	54.8	+0.1	7	15	33	7	16	34
SR 1	Linda Mar Boulevard to Crespi Drive	75	68.8	68.9	+0.1	63	135	292	63	136	292
SR 1	South of Linda Mar Boulevard	75	66.3	66.3	0	42	91	196	42	91	196
SR 1	North of Crespi Drive	75	69.0	69.0	0	64	138	298	64	138	298

Note:

Distances to traffic noise contours are measured in feet from the centerlines of the roadways.

Source: j.c. brennan and associates, Inc., 2017.

The actual distances to noise level contours may vary from the distances predicted by the FHWA model due to roadway curvature, grade, shielding from local topography or structures, elevated roadways, or elevated receivers. The distances reported in Table 9 and Table 10 provide conservative estimates of noise exposure along the project-area roadways. As shown in the tables, the project would result in changes to traffic noise levels between 0.0 and 0.1  $L_{dn}$  dB under both Background Plus Project and Cumulative Plus Project conditions. As shown in Table 5, the existing ambient noise level at the project site were determined to be 54  $L_{dn}$  dB. Therefore, the noise level at the exterior of the proposed residential units would remain below the 65  $L_{dn}$  dB threshold following construction and operation of the proposed project.

Given that the proposed buildings would be expected to provide a 25-dB exterior-to-interior noise level reduction, typical interior noise levels at the buildings are expected to be less than 45 dB CNEL/ $L_{dn}$ . Therefore, interior noise levels at the proposed residences would comply with the Title 24 interior noise level standard of 45 dB CNEL, and a less-than-significant impact would occur.

### Conclusion

Based on the above, traffic noise associated with the proposed project would not result in the exposure of persons to or generation of noise levels in excess of standards established in the General Plan Update, or applicable standards of other agencies, and would not cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. Therefore, a *less-than-significant* impact would occur.

b. Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities in inches per second. Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of peak particle velocities. Per the noise analysis, the threshold for damage to architectural structures is 0.2 inches per second, peak particle velocity (in/sec PPV) or greater, and continuous vibrations of 0.1 in/sec PPV or greater would likely cause annoyance to sensitive receptors. For ancient monuments, an upper limit of 0.08 in/sec PPV is recommended.

The primary vibration-generating activities associated with the project would occur during grading and construction of building foundations and infrastructure associated with utilities. Table 11 below presents typical vibration levels that could be expected from construction equipment at various distances. The most significant source of ground-borne vibrations during project construction would be the use of vibratory compactors. As shown in Table 11, vibratory compactors would generate typical vibration levels of 0.070 in/sec at a distance of 50 feet.

Construction activities involving vibratory compactors would occur at a distance of 50 feet from the nearest residential building, and, thus, vibration associated with such activities would not be perceptible to residents of the building and would not cause

structural damage to the building itself. Because the vibration level would be below the 0.2 in/sec PPV threshold for structural damage and 0.1 in/sec PPV for human annoyance, groundborne vibrations would not be perceptible to residents of the buildings and would not damage existing structures. It should be noted that nearby buildings associated with the Sanchez Adobe County Park and Historical Site could be particularly sensitive to vibration and, thus, application of the 0.08 in/sec PPV threshold for ancient monuments is recommended. Per the ENA, the nearest buildings are located a minimum of 100 feet from the project site boundaries and approximately 160 feet from the center of the project site. Given the considerable intervening distance between the buildings and the proposed project site, the buildings would be exposed to vibration levels of less than 0.02 in/sec PPV during project construction.

Table 11 Vibration Levels for Various Construction Equipment								
Type of Equipment Peak Particle Velocity at 25 Peak Particle Velocity at 5 feet (inches/second) feet (inches/second)								
Large Bulldozer	0.089	0.029						
Loaded Trucks	0.076	0.025						
Small Bulldozer	0.003	0.000						
Auger/drill Rigs	0.089	0.029						
Jackhammer	0.035	0.011						
Vibratory Hammer	0.070	0.023						
Vibratory Compactor/roller	0.210	0.070						
Source: j.c. brennan and associates,	Inc., 2017.							

Based on the above, vibration levels associated with construction of the proposed project would not be perceptible to nearby sensitive receptors. Therefore, a *less-than-significant* impact would occur related to exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

d. During project construction, heavy equipment would be used for site preparation, grading, paving, and building construction, which would increase ambient noise levels when in use. Noise impacts resulting from construction depend on the noise generated by various pieces of construction equipment, the timing and duration of noise generating activities, and the distance between construction noise sources and noise-sensitive areas. Noise levels from typical construction equipment are shown in Table 8.

As shown in Table 8, activities involved in construction would generate maximum noise levels ranging from 76 to 90 dB at a distance of 50 feet. In addition to noise related to onsite construction equipment, noise would be generated by increased project-related truck traffic on area roadways during the construction phase.

The majority of the construction would occur at distances between 50 and 100 feet from the nearest noise-sensitive receptors. Existing noise-sensitive receptors include residences

adjacent to the south property line and across Adobe Drive, the Sanchez Adobe County Park and Historical Site Park Ranger Residence to the south, and the Alma Heights Christian Elementary School located approximately 175 feet south of the site. Construction-related activity is predicted to generate exterior noise levels ranging from approximately 76 dB to 90 dB  $L_{max}$  at the nearest residences, between 72 dB and 84 dB  $L_{max}$  at the Park Ranger residence, and between 65 dB and 79 dB at the Alma Heights Christian Elementary School.

	Table 12 Typical Construction Equipment Noise										
	Pre	dicted Noise	Levels, L <sub>max</sub>	dB		s to Noise rs (feet)					
Type of Equipment	Noise Level at 50 feet	Noise Level at 200 feet	Noise Level at 400 feet	70 dB L <sub>max</sub>	65 dB L <sub>max</sub>						
Backhoe	78	72	66	60	126	223					
Compactor	83	77	71	65	223	397					
Compressor (air)	78	72	66	60	126	223					
Concrete Saw	90	84	78	72	500	889					
Dozer	82	76	70	64	199	354					
Dump Truck	76	70	64	58	100	177					
Excavator	81	75	69	63	177	315					
Generator	81	75	69	63	177	315					
Jackhammer	89	83	77	71	446	792					
Pneumatic Tools	85	79	73	67	281	500					
Source: j.c. brennar	n and associat	es, Inc., 2017.									

Some cumulative noise may occur when the Sanchez Adobe County Park and Historical Site Visitors Center is constructed. However, the cumulative increase would generally occur at the County Park and Historical Site, and the Visitors Center construction would be the dominant noise source at the County Park and Historical Site. Increases in noise levels at other sensitive receptors in the project area would temporarily increase between 1 and 2 dB  $L_{\rm max}$ .

Noise associated with construction activities would occur intermittently, and would be limited to the hours of 7:00 AM to 7:00 PM, Monday through Friday, and 9:00 AM to 5:00 PM on Saturdays and Sundays per Section 8-7.5.07 of the City's Municipal Code. However, given the proximity of the nearby residential buildings to the proposed construction activities, noise levels at nearby noise-sensitive receptors could substantially increase above existing levels without the project. Implementation of the following mitigation measure would prevent the occurrence of a *potentially significant* impact related to a substantial temporary or periodic increase in ambient noise levels.

### Mitigation Measure(s)

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

- XII-1. The following criteria shall be included in the grading plan and building permit plans submitted by the project applicant for review and approval by the City of Pacifica Planning Department prior to issuance of grading and building permits:
  - Noise-generating construction activities, including truck traffic coming to and from the site for any purpose, shall be limited to the hours of 7:00 AM to 7:00 PM on weekdays, and 9:00 AM to 5:00 PM on Saturday and Sundays;
  - All equipment driven by internal combustion engines shall be equipped with mufflers which are in good working condition and appropriate for the equipment;
  - The construction contractor shall utilize "quiet" models of air compressors and other stationary noise sources where the technology exists;
  - At all times during project grading and construction, stationary noise-generating equipment shall be located as far as practical from noise-sensitive receptors;
  - Unnecessary idling of internal combustion engines shall be prohibited;
  - Owners and occupants of residential and non-residential properties located with 300 feet of the construction site shall be notified of the construction schedule in writing; and
  - The construction contractor shall designate a "noise disturbance coordinator" who shall be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and institute reasonable measures as warranted to correct the problem. A telephone number for the disturbance coordinator shall be conspicuously posted at the construction site.
- e,f. The project site is located approximately five miles north of the nearest airport, the Half Moon Bay Airport, and is located approximately 5.7 miles west of the San Francisco International Airport. The project area is not addressed by Airport Land Use Plans created for either airport. Given the substantial distance between the airports and the project site, exterior and interior noise levels resulting from aircraft would be compatible with the proposed project. Therefore, a *less-than-significant* impact would occur related to exposing people residing or working in the project area to excessive noise levels associated with airports.

	II. POPULATION AND HOUSING. puld the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
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 directly induce a relatively modest amount of population growth in the area through the proposed construction of seven residential units. In 2010, the average household size in the City was 2.65. Thus, the proposed project would be estimated to house approximately 19 residents, a portion of which could represent new residents in the City.

However, the proposed project would be consistent with the land use designation for the site, and, thus, would be consistent with the buildout anticipated for the area in the adopted General Plan and General Plan Update. Therefore, the proposed project would result in a *less-than-significant* impact with respect to induction of population growth in the area.

b,c. The proposed project site does not contain existing development, and, thus, would not result in the displacement of any people or housing. In addition, the project would introduce seven additional residential units to the City's housing stock. Therefore, the proposed project would not be considered to displace substantial numbers of existing housing or people, necessitating the construction of replacement housing elsewhere, and a *less-than-significant* impact would occur.

<sup>&</sup>lt;sup>22</sup> City of Pacifica. *Housing Element*: 2015-2023 [pg. 7]. Adopted May 11, 2015.

Wo imp phy or p con env	v. PUBLIC SERVICES.  Full the project result in substantial adverse physical pacts associated with the provision of new or exically altered governmental facilities, need for new physically altered governmental facilities, the astruction of which could cause significant prironmental impacts, in order to maintain acceptable evice ratios, response times or other performance fectives for any of the public services:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less- Than- Significant Impact	No Impact
a.	Fire protection?			×	
b.	Police protection?			*	
c.	Schools?			×	
d.	Parks?			×	
e.	Other Public Facilities?			*	

### **Discussion**

a. In 2003, the cities of Daly City, Brisbane, and Pacifica collaborated to form the North County Fire Authority (NCFA) through a Joint Powers Authority agreement. The NCFA provides fire protection and medical emergency services in the City of Pacifica as well as the other two communities. Under the NCFA, fire stations and fire companies are strategically located throughout the three communities, which provide rapid assistance for medical, fire or other hazardous situations. The nearest fire station relative to the proposed project site is Fire Station #2, located at 1100 Linda Mar Blvd. Station #2 is located approximately 1,000 feet southeast of the project site. Due to the close proximity of the station to the proposed project site, response times at the site would be extremely short. The project would be required to comply with all NCFA standard conditions of approval related to provision of fire flow, roadway widths, etc.

Because the NCFA would provide adequate fire protection services to proposed project, and because the proposed project would be required to include adequate fire safety design elements, the project would result in a *less-than-significant* impact with respect to substantial adverse effects to fire protection services.

b. The Pacifica Police Department provides police protection services throughout the City. Police Department services to the area would not be changed as a result of the proposed project, and the proposed project would be served by the Police Department. The proposed project would include only seven residential units, and, thus, would not have a significant impact on existing police protection resources. Therefore, the project would result in a *less-than-significant* impact with respect to resulting 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 police protection services.

c. The project site is located within the Pacifica School District and the Jefferson Union High School District. Because the proposed project would include residential land uses, the project applicant would be required to pay the appropriate school district impact fees. Proposition 1A/Senate Bill No. 50 prohibits local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any "[...] legislative or adjudicative act...involving ...the planning, use, or development of real property" (Government Code 65996(b)). Satisfaction of the Proposition 1A/Senate Bill No. 50 statutory requirements by a developer is deemed to be "full and complete mitigation."

Because the proposed project would comply with Proposition 1A/Senate Bill No. 50 through the payment of school impact fees, the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities. Therefore, the project would result in a *less-than-significant* impact with respect to resulting 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 performance objectives for schools.

d. The proposed project would involve the development of seven residential dwelling units on 0.43 acre of land. The project would not include dedicated park areas. Per Section 10-1.803 of the Pacifica Municipal Code, the project applicant would be required to pay a park dedication in-lieu fee to the City. The fee would be used by the City to fund upkeep and development of parks throughout the City, and would offset any potential adverse effects to parks as a result of the proposed project.

Payment of the park dedication in-lieu fee would ensure that the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered park facilities. Therefore, the proposed project would result in a *less-than-significant* impact with respect to resulting 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 performance objectives for public parks.

e. The City contains two public libraries: The Pacifica-Sharp Park Library and the Pacifica-Sanchez Library. The libraries constitute two branches of the San Mateo County Library (SMCL) system. Per a 1999 Joint Powers Authority (JPA) agreement, the City is responsible for funding maintenance of the two libraries. The proposed project includes a total of seven residential dwelling units. Consequently, the project would not result in a substantial increase in demand for library services, and a *less-than-significant* impact would occur with respect to resulting 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 performance objectives for libraries or other public facilities.

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

### **Discussion**

a,b. The proposed project would include development three clustered townhomes totaling seven residential units. Recreational or park facilities are not proposed as part of the proposed project.

The proposed project site is located directly adjacent to the Sanchez Adobe Historic Site, a San Mateo County Park. In addition, the site is located 0.38 miles southeast of the Oddstad City Park. As discussed in Section XIV, Public Services, of this IS/MND, payment of a park dedication in-lieu fee in accordance with Section 10-1.803 of the Pacifica Municipal Code would offset deterioration of existing recreational facilities. Because the proposed project would not be expected to substantially increase the use of existing parks or recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated, and the project would not include or require the construction or expansion of recreational facilities, a *less-than-significant* impact would occur.

	TI. TRANSPORTATION AND CIRCULATION. uld the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less- Than- Significant Impact	No Impact
a.	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?			*	
b.	Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?			*	
c. d.	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?  Substantially increase hazards due to a design				*
u.	features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?		*		
e.	Result in inadequate emergency access?		*		
f.	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?			*	

### **Discussion**

a,b. The following discussion is based on the TIA prepared for the proposed project by RKH Civil and Transportation Engineering and peer-reviewed by Abrams Associates. <sup>23, 24</sup>

Based on the project's trip generation and the potential for traffic impacts, the TIA designated three signalized intersections for analysis (see Figure 17):

<sup>&</sup>lt;sup>23</sup> RKH Civil and Transportation Engineering. *Transportation Impact Analysis, Adobe Drive Condominiums, Pacifica, California.* November 7, 2015.

Abrams Associates. Peer Review of the Adobe Drive Condominiums TIA. January 6, 2017.

**LOCATION MAP** 

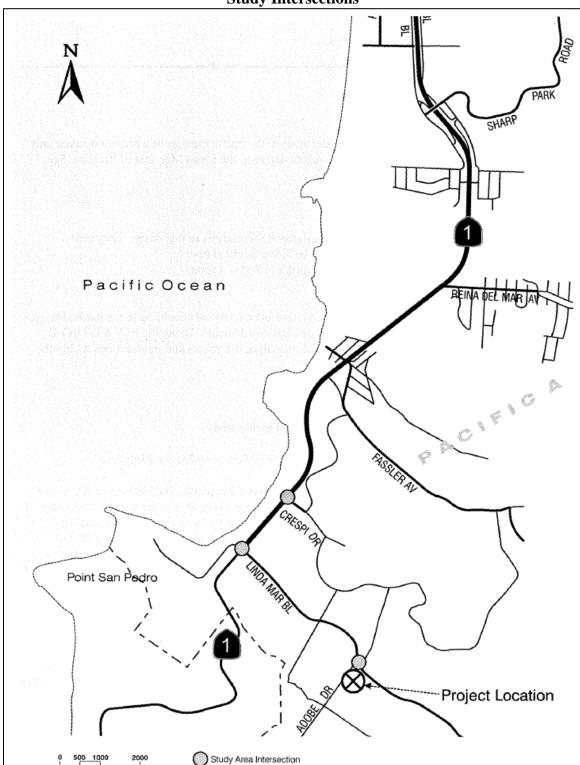


Figure 17
Study Intersections

Source: RKH, 2015.

Scale in feet (meters)

- 1. Linda Mar Boulevard and Adobe Drive/Seville Drive;
- 2. Route 1 and Linda Mar Boulevard/San Pedro Avenue; and
- 3. Route 1 and Crespi Drive.

The three designated study area intersections were analyzed per the methodologies contained in the 2010 edition of the *Highway Capacity Manual*. A traffic network model was created to analyze the streets and intersections within the project study area using the PTV VISTRO 41 program.

Four scenarios were developed and analyzed in the TIA:

- 1. **Existing Conditions** Current (2015) traffic volumes within the study area.
- 2. **Background Conditions (Existing + Approved Projects)** Background traffic is the traffic expected to be present at the time the project is ready for occupancy. Such traffic consists of existing traffic plus traffic expected to be generated by developments that are approved, but were not built and occupied at the time the traffic counts were taken.
- 3. **Project Conditions** (Existing + Approved + Project) Project trips were estimated based on the proposed land use. Such trips were added to Background Conditions traffic in order to obtain the Project Conditions traffic scenario. In addition, an Existing + Project scenario was analyzed.
- 4. Near-Term Cumulative Conditions (Existing + Approved + Project + Future Development) Cumulative traffic is the traffic expected to be occur through 2020. It consists of existing traffic, trips from Approved Projects, trips from the project, and trips from future development projects within the study area.

### Analysis Methodology

The operations of roadway facilities are described with the term level of service (LOS). LOS is a qualitative description of how well or how poorly a traffic facility (a street or an intersection) is operating. Six levels of service are defined, ranging from LOS A (best operating conditions) to LOS F (worst operating conditions). LOS E corresponds to operations "at capacity". When volumes exceed capacity, stop-and-go conditions result and operations are designated LOS F. Definitions for each LOS are presented in Table 13 below.

	Table 13	
LOS	LOS Definitions for Signalized Intersections  Description	Delay (in seconds)
A	Conditions of free flow; speed is controlled by driver's desires, stipulated speed limits, or physical roadway conditions.	< 10.0
В	Conditions of stable flow; operating speeds beginning to be restricted; minimal restrictions on maneuverability from other vehicles.	>10.0 to 20.0
С	Conditions of stable flow; speeds and maneuverability more closely restricted; occasional backups behind left-turning vehicles at intersections.	>20.0 to 35.0
D	Conditions approach unstable flow; tolerable speeds can be maintained, but temporary restrictions may cause extensive delays; little freedom to maneuver; comfort and convenience low; at intersections some motorists, especially those making left turns, may wait through one or more signal changes.	>35.0 to 55.0
Е	Conditions approach capacity; unstable flow with stoppages of momentary duration; maneuverability severely limited.	>55.0 to 80.0
F	Forced flow conditions; stoppages for long periods; low operating speeds. Delays at intersections average 60 seconds or more.	>80.0
Source: F	RKH, 2015.	

For signalized intersections in the City of Pacifica, the proposed project would create a significant adverse impact on traffic conditions at the intersection if, for any peak hour:

- The level of service at the intersection degrades from an acceptable LOS D or better under background conditions to an unacceptable LOS E or F under project conditions:
- If the intersection is already operating at an unacceptable LOS E, and the addition of project traffic causes the critical movement delay at the intersection to increase by two or more seconds and the critical demand-to-capacity (V /C) ratio to increase by more than 0.010; or
- If the intersection is already operating at an unacceptable LOS F, and the addition of project traffic causes the critical movement delay at the intersection to increase by one or more seconds and the V/C to increase by more than 0.010.

An exception to the above standards applies when the addition of project traffic reduces the amount of average delay for critical movements. Under such conditions, the threshold of significance is an increase in the critical V /C value of more than 0.010.

Certain roadways and intersections within the County of San Mateo are covered by a Congestion Management Program (CMP). <sup>25</sup> The CMP provides specific LOS standards for such roadways and intersections, including SR 1, which was included for analysis in

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<sup>&</sup>lt;sup>25</sup> City/County Association of Governments of San Mateo County. Final San Mateo County Congestion Management Program 2015 [pg. 3-5]. November 2015.

the TIA, as noted below. As of 2015, the LOS standard for the SR 1 roadway in the vicinity of the project is LOS E. The CMP defines a significant increase in congestion as a change in the measured level of service to any level worse than the specified LOS standard. Therefore, if the proposed project were to result in such a change, the project would conflict with the CMP.

### **Existing Roadway Network**

The following local roadways were included in the analysis:

- State Route 1 The portion of State Route (SR) 1 within the study area is a four-lane divided highway which runs north-south.
- Linda Mar Boulevard Linda Mar Boulevard is a four-lane east-west arterial street. The street does not allow parking between Route I and Adobe Drive. East of Adobe Drive, the street includes a varying number of lanes, and parking is allowed on some portions of the street.
- Adobe Drive Adobe Drive is a two-lane collector street with parking generally allowed on both sides of the street.

### **Existing Conditions**

Using the analysis methods contained in the 2010 Highway Capacity Manual, the LOS for each intersection was calculated for the Existing Conditions scenario. For the purposes of determining the reasonable worst-case impacts of traffic on the surrounding street network from the proposed project, the trips generated by the proposed project were estimated for the peak commute hour. For the Existing Conditions scenario, as well as the other scenarios discussed in this section, the TIA defined the peak hour of traffic as the hours from 7:00 AM to 9:00 PM (AM Peak Hour) and 4:00 PM to 6:00 PM (PM Peak Hour) on an average weekday. The results of the LOS calculations are summarized in Table 14 below.

Table 14 Intersection LOS – Existing Conditions								
	Peak		Existing					
Signal Controlled Intersection	Hour	V/C	Delay	LOS				
Linda Mar Blvd. and Adobe Dr.	AM	0.283	8.20	A				
1. Ellida iviai Bivd. alid Adobe Di.	PM	0.261	7.29	A				
2. SR 1 and Linda Mar Blvd. / San	AM	0.525	20.89	C				
Pedro Ave.	PM	0.526	22.81	C				
2 CD 1 and Crasni Dr	AM	0.652	21.40	C				
3. SR 1 and Crespi Dr.	PM	0.570	12.31	В				

Note: Delay is Average Control Delay in seconds per vehicle.

Source: RKH, 2015.

As shown in Table 14, all of the study intersections operated under acceptable conditions (LOS D or better) during the weekday AM and PM peak hours.

### **Background Conditions**

Background Conditions are traffic conditions which are expected to occur immediately prior to the completion and occupancy of the proposed project. Traffic from developments that are approved and/or expected to be completed and occupied prior to the occupation of the proposed project were added to existing traffic volumes to create the scenario.

According to the TIA, future projects of significant size that would generate quantifiable traffic through any of the study area intersections are not currently expected. An analysis of traffic growth on SR 1 and the other study area roadways over the past ten years revealed that peak hour traffic on SR 1 has grown 29 percent, and that Annual Average Daily Traffic (AADT) has grown 3 percent. Based on an analysis of peak hour traffic counts at the three study area intersections between 2006 and 2015, the growth in traffic at the intersections has remained constant or increased 2 to 5 percent.

Using the analysis methods contained in the 2010 Highway Capacity Manual, the LOS for each intersection was calculated for the Background Conditions scenario. As shown in Table 15 below, the LOS at all study intersections remains unchanged under the Background Conditions Scenario.

Table 15 Intersection LOS – Background Conditions								
	Peak		Existing		Ba	ackgrour	nd	
Signal Controlled Intersection	Hour	V/C	Delay	LOS	V/C	Delay	LOS	
1. Linda Mar Blvd. and Adobe	AM	0.283	8.20	A	0.285	8.21	A	
Dr.	PM	0.261	7.29	A	0.263	7.29	A	
2. SR 1 and Linda Mar Blvd. /	AM	0.525	20.89	C	0.538	21.29	C	
San Pedro Ave.	PM	0.526	22.81	C	0.535	23.19	C	
2 CD 1 and Creami Dr	AM	0.652	21.40	C	0.674	24.26	С	
3. SR 1 and Crespi Dr.	PM	0.570	12.31	В	0.591	12.83	В	

Note: Delay is Average Control Delay in seconds per vehicle.

Source: RKH, 2015.

### **Project Conditions**

The proposed project would result in the construction of seven residential units. According to the TIA, the proposed project is estimated to generate approximately three vehicle trips during the AM peak hour and four trips during the PM peak hour (see Table 16).

Table 16 Project Trip Generation											
AM Peak Hour PM Peak Ho											
Land Use/Category	Size	In	Out	Total	In	Out	Total				
Residential Condominium/Townhouse	7 units	1	2	3	3	1	4				
Source: RKH, 2015.				•		•					

Anticipated project vehicle trips were distributed on the basis of current travel patterns and traffic volumes. The assumed vehicle trip distribution is shown on Figure 18.

The results of the LOS calculations for the Project Conditions scenario are shown in Table 17 below. As shown in the table, project-generated traffic would have a minimal effect on the delay at the study intersections. The increase in delay would not significantly worsen the LOS over that of the Background Conditions scenario.

		Inter	section		le 17 Projec	t Condi	itions				
Signal		Ba	ckgrou	nd		<b>Project</b>		Existing + Project			
Controlled	Peak										
Intersection	Hour	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	
1. Linda Mar	AM	0.285	8.21	Α	0.287	8.22	A	0.284	8.21	Α	
Blvd. and Adobe Dr.	PM	0.263	7.29	A	0.265	7.29	A	0.262	7.29	A	
2. SR 1 and	AM	0.538	21.29	С	0.539	21.30	С	0.526	20.91	С	
Linda Mar Blvd. / San Pedro Ave.	PM	0.535	23.19	С	0.536	23.22	С	0.527	22.83	С	
3. SR 1 and	AM	0.674	24.26	С	0.674	24.29	С	0.652	21.75	С	
Crespi Dr.	PM	0.591	12.83	В	0.591	12.84	В	0.571	12.32	В	

Note: Delay is Average Control Delay in seconds per vehicle.

Source: RKH, 2015.

### Near-Term Cumulative Conditions

The Cumulative Conditions scenario includes the traffic that is expected to exist in the proposed project area through the year 2020. According to the TIA, three developments could occur subsequent to the development of the proposed project within the Near-Term Cumulative scenario:

- An 11-lot single family residential development on Higgins Way;
- A four-unit motel at 500 San Pedro Avenue; and
- A mixed-use development at 505 San Pedro Avenue.

CRESPI CABRILLO ES Point San Pedro LINDA MAR AREA 8% 0% **5**% **PROJECT VEHICLE** -AM Street Peak Hour -PM Street Peak Hour TRIP DISTRIBUTION

Figure 18
Study Intersections

Source: RKH, 2015.

In addition to factoring in traffic from the three potential developments, a background growth factor was applied to the Existing Conditions scenario traffic volumes accordingly:

- SR 1 through traffic 1.1314; and
- Local street traffic 1.0253.

The combination of the three potential developments and the background growth factors represent the anticipated traffic conditions for the year 2020. The results of the LOS calculations for the Near-Term Cumulative Conditions scenario are shown in Table 18 below. As shown in the table, the proposed project would result in a significant impact to any of the study intersections.

Table 18 Intersection LOS – Near-Term Cumulative Conditions													
Peak Cumulative Cumulative + Projec													
<b>Signal Controlled Intersection</b>	Hour	V/C	Delay	LOS	V/C	Delay	LOS						
1. Linda Mar Blvd. and Adobe	AM	0.294	8.30	A	0.296	8.30	A						
Dr.	PM	0.209	7.49	A	0.210	7.49	A						
2. SR 1 and Linda Mar Blvd. /	AM	0.562	22.20	C	0.563	22.22	C						
San Pedro Ave.	PM	0.613	26.79	C	0.614	26.81	C						
2 SD 1 and Crasni Dr	AM	0.715	27.69	C	0.716	27.79	C						
3. SR 1 and Crespi Dr.	PM	0.626	13.64	В	0.627	13.65	В						

Source: RKH, 2015.

### Conclusion

The proposed project would not cause a decrease in the LOS of any of the study intersections. In addition, the (V /C) ratio at each of the intersections would not increase by more than 0.010 under the Project Conditions or Near-Term Cumulative Conditions scenarios. Therefore, the proposed project would not conflict with standards for signalized intersection traffic conditions established by the City. While the peer review of the TIA noted that a different trip generation rate (detached single family housing) may have been more appropriate for the project given the size and scale of the proposed buildings, the alternate trip generation rate would not affect any of the conclusions made in the TIA. Because the project would not result in impacts to intersections along SR 1, the project would not be anticipated to decrease the LOS of the SR1 roadway. Thus, the project would not conflict with the San Mateo County CMP. Therefore, the proposed project would not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, and would not conflict with an applicable CMP. Consequently, a *less-than-significant* impact would occur.

The proposed project site is located approximately five miles north of Half Moon Bay c. Airport and 5.7 miles west of San Francisco International Airport. Given that the project site is not located adjacent to an existing airport, and the project would not include construction of any structures that would require alteration of air traffic patterns, a change in air traffic patterns at either airport is not anticipated. Therefore, a *no impact* would occur.

d,e. The proposed project would not result in any sharp curves, dangerous intersections, or incompatible uses that would substantially increase hazards on the site or in the immediate vicinity. The proposed internal driveway (Adobe Court) would not include a turnaround. However, the peer review of the TIA determined that such a turnaround would not likely be necessary given the length of the driveway. Access to the site will be from Adobe Drive via a single 20-foot wide center roadway. Vehicles exiting the site would have adequate comer sight distance when entering Adobe Drive. However, should the on-site walls, fencing, signs, or landscaping adjacent to Adobe Drive obscure sight lines, such sight distance could be reduced. In addition, the site plans for the proposed project do not specify lighting for Adobe Court. The TIA recommends that the driveway be lighted to the Illuminating Engineering Society of North America (IESNA) minimum standards for residential streets in order to ensure proper visibility on-site.

Sufficient emergency access is determined by factors such as number of access points, roadway width, and proximity to fire stations. Given the size and scale of the proposed project, the single proposed access point would provide adequate access to all seven proposed units. Adobe Court would meet the minimum width required to safely accommodate all emergency vehicles. In addition, the proposed project would be required to conform to all relevant City design standards.

Therefore, the proposed project would not result in inadequate emergency access. However, should the site lines exiting the driveway be obscured by landscaping features, and should the proper lighting not be provided for Adobe Court, the project could substantially increase hazards due to design features. Thus, a *potentially significant* impact would occur.

- XVI-1. Prior to issuance of a building permit, the site plans shall demonstrate that site lines for vehicles exiting the driveway are not obscured by walls, fencing, signs, or landscaping. The site line analysis shall be prepared by a qualified professional engineer, subject to review and approval by the City Engineer. If recommended as part of the site line analysis, on-street parking at the project frontage along Adobe Drive shall be limited within the sight safety area, in accordance with traffic safety standards.
- XVI-2. Prior to completion of construction activities, the project applicant shall demonstrate that the proposed on-site driveway includes street lighting meeting the recommendations included in the TIA. Proof of such lighting shall be submitted to the City of Pacifica Planning Department.
- f. Given the size of the proposed project (seven units), substantial impacts to public transit, bicycle, or pedestrian facilities are unlikely. In addition, the project would not conflict

with existing bikeways outlined in the Pacifica Bicycle Plan. <sup>26</sup> The project would retain the existing sidewalk along the site frontage on Adobe Drive. Therefore, the project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. Thus, a *less-than-significant* impact would occur.

<sup>&</sup>lt;sup>26</sup> City of Pacifica. *Pacifica Bicycle Plan*. March 2000.

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

### **Discussion**

a,b. As discussed in Section V, Cultural Resources, of this IS/MND, the southeastern portion of proposed project site is located within the boundary of archaeological site CA-SMA-71. As part of a cultural resources investigation, Tom Origer & Associates conducted multiple excavations on the project site to evaluate subsurface archaeological resources associated with a portion of archaeological site CA-SMA-71. Materials recovered through the investigation included Native American materials; however, based on consultation with tribal representatives regarding potential tribal concerns, none of the recovered materials were identified as Tribal Cultural Resources pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. Furthermore, Native American tribes in the project region have not requested notification from the City of new development projects (pursuant to AB52). The City, as a lead agency, has not identified any Tribal Cultural Resources on the site.

Nonetheless, the possibility exists that previously undiscovered Tribal Cultural Resources could be uncovered during ground-disturbing activities associated with construction of the proposed project. Therefore, the proposed project could result in a substantial adverse change in the significance of a tribal cultural resource, and a *potentially significant* impact could occur.

# Mitigation Measure(s)

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

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

	VIII. UTILITIES AND SERVICE SYSTEMS. ould the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
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 proposed project would receive sewer services from the City. The City's wastewater is treated at the Calera Creek Water Recycling Plant (CCWRP), located approximately two miles north of the project site. The annual average daily wastewater flow in the City is 3.1 million gallons per day (gpd). <sup>27</sup> The CCWRP was designed to handle an annual average daily wastewater flow of 4.0 million gpd, and is anticipated to have enough capacity to accommodate buildout of the General Plan.

The sewage generated at the project site would flow through the on-site sewer system and to a new connection with the existing eight-inch sewer line underlying Adobe Drive. Buildout of the project site has been anticipated by the General Plan, and, as such, sufficient capacity exists at the CCWRP to handle wastewater from the proposed project. In addition, residents of the proposed development would be required to pay an annual sewer charge based on upon water consumption rates for each unit per Chapter 6 of the

<sup>&</sup>lt;sup>27</sup> City of Pacifica. Redevelopment of the Beach Boulevard Property Environmental Impact Report. October 2012.

City Municipal Code. Such charges would help to ensure that adequate capacity is available to serve the project's projected demand for services.

Therefore, the proposed project would not exceed any wastewater treatment requirements of the applicable Regional Water Quality Control Board, require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, or result in a determination by the wastewater treatment provider which serves or may serve the project that adequate capacity is not available to serve the project's projected demand. Thus, a *less-than-significant* impact would occur.

- c. Development of the proposed project would result in an increase in impervious surfaces on the project site, which would increase the amount of stormwater runoff generated on the project site from existing levels. However, as discussed in Section IX, Hydrology and Water Quality, of this IS/MND, the project would be required to comply with C.3 Standards and includes appropriate site design measures, source controls, and hydraulically-sized stormwater treatment facilities to remove pollutants, slow runoff, and release runoff to the downstream storm drain system at a level comparable to the predevelopment flow volume. As stated in Section IX, the existing stormwater drainage system infrastructure would have sufficient capacity to handle the stormwater flows from the proposed project, and alterations to the existing stormwater infrastructure in the vicinity of the project site would not be necessary. Because the proposed project would not require the construction of new off-site stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects, a *less-than-significant* impact would occur.
- d. As noted in Section IX, Hydrology and Water Quality, the proposed project would receive water service from the NCCWD. The NCCWD is estimated to have sufficient water supplies to serve the City through the year 2036 given buildout of the General Plan. <sup>28</sup> The proposed project would be consistent with the General Plan, and, thus, would not exceed the demand previously anticipated for the site. Accordingly, the proposed project would not require or result in the construction of new water facilities or the expansion of existing facilities, as sufficient water supplies are available to adequately serve the proposed project. Therefore, a *less-than-significant* impact would occur.
- f,g. Solid waste collection services for the City are provided by Recology of the Coast, a Division of Recology. Services provided to the City by Recology include curbside pick-up of garbage, recyclables, and green waste. Solid waste is disposed of at the Ox Mountain Landfill. The proposed project would generate solid waste associated with construction activities and project operations. Construction debris would be disposed of in accordance with applicable federal, State, and local regulations and standards.

The proposed project would include the development of seven multifamily residential units. Based on a conservative solid waste generation rate of 8.6 lbs/dwelling unit/day, the project would generate approximately 60 lbs of solid waste per day during

North Coast County Water District. 20-Year Long-Term Water Master Plan. February 2016.

operation.<sup>29</sup> At a rate of 60 lbs per day, the project would not generate a substantial amount of solid waste such that the capacity available to serve the project would be exceeded. In addition, the project would be consistent with the General Plan, and, thus, would be not exceed the solid waste demand previously anticipated for the site in the General Plan. Therefore, the proposed project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs and would comply with federal, state, and local statutes and regulations related to solid waste. Thus, a *less-than-significant* impact would occur.

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Cal Recycle. *Estimated Solid Waste Generation Rates*. Available at: https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates. Accessed December 28, 2016.

XE	X. MANDATORY FINDINGS OF SIGNIFICANCE.	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a.	Does the project have the potential to 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?			*	
c.	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)?			×	
d.	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			*	

### **Discussion**

- a. As discussed in the Biological Resources section of this IS/MND, the proposed project site is of low habitat value given the disturbed nature of the site as well as the site's location within an urbanized area of the City of Pacifica. Nevertheless, the development of the proposed project has the potential to affect birds protected by the MBTA. 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 (see Mitigation Measures IV-1[a] through IV-1[c], V-1, and V-2). 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,c. The proposed project involves the development of a vacant lot in a developed area of the City of Pacifica. The proposed project would be consistent with the General Plan land use designation and zoning for the project site and, as such, the proposed project was included in the cumulative analysis of City buildout in the City General Plan. The project would not conflict with long-term environmental goals of the General Plan. Applicable policies from the General Plan would be implemented as part of the proposed project, as well as the project-specific mitigation measures included in this IS/MND, to ensure any potential impacts of the proposed project would be individually limited and not cumulatively considerable. As demonstrated in this IS/MND, all potential environmental impacts that could occur as a result of project implementation would be reduced to a less-

than-significant level with implementation of project-specific mitigation measures and compliance with applicable General Plan policies. Therefore, the proposed project does not have the potential to achieve short-term, to the disadvantage of long-term, environmental goals. In addition, when viewed in conjunction with other closely related past, present, or reasonably foreseeable future projects, the project would not result in impacts that are individually limited, but cumulatively considerable. As such, a *less-than-significant* impact would occur.

d. The proposed project could expose humans to hazards relating to seismic ground shaking and residing in structures located on an unstable geologic unit. During construction, the project could potentially expose neighboring noise-sensitive receptors to excess noise levels. However, this IS/MND includes mitigation measures that would reduce any potential impacts to less-than-significant levels. Furthermore, the proposed project would be designed in accordance with all applicable building standards and codes to ensure adequate safety is provided for the future residents of the proposed project. Therefore, impacts related to environmental effects that could cause adverse effects on human beings would be *less-than-significant*.

# **APPENDIX**

# AIR QUALITY AND GHG MODELING RESULTS

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# 1335 Adobe Drive Bay Area AQMD Air District, Annual

# 1.0 Project Characteristics

### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	7.00	Dwelling Unit	0.43	7,775.00	20

### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	64
Climate Zone	5			Operational Year	2019
Utility Company	Pacific Gas & Electric Cor	mpany			
CO2 Intensity (lb/MWhr)	409.81	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - Intensity Factors for CO2 adjusted based on PG&E RPS reductions.

Land Use - \*Applicant provided

Construction Phase - \*Applicant provided

Grading - \*applicant provided

Energy Use -

Energy Mitigation -

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Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	100.00
tblConstructionPhase	NumDays	2.00	5.00
tblConstructionPhase	NumDays	1.00	5.00
tblConstructionPhase	PhaseEndDate	4/1/2018	9/21/2018
tblConstructionPhase	PhaseEndDate	4/1/2018	9/7/2018
tblConstructionPhase	PhaseEndDate	4/1/2018	4/13/2018
tblConstructionPhase	PhaseEndDate	4/1/2018	4/20/2018
tblConstructionPhase	PhaseEndDate	4/1/2018	4/6/2018
tblConstructionPhase	PhaseStartDate	4/2/2018	5/7/2018
tblConstructionPhase	PhaseStartDate	4/2/2018	4/23/2018
tblConstructionPhase	PhaseStartDate	4/2/2018	4/9/2018
tblConstructionPhase	PhaseStartDate	4/2/2018	4/16/2018
tblGrading	AcresOfGrading	0.00	0.43
tblGrading	AcresOfGrading	2.50	0.00
tblLandUse	BuildingSpaceSquareFeet	7,000.00	7,775.00
tblLandUse	LandUseSquareFeet	7,000.00	7,775.00
tblLandUse	LotAcreage	0.44	0.43
tblProjectCharacteristics	CO2IntensityFactor	641.35	409.81
tblProjectCharacteristics	OperationalYear	2018	2019

# 2.0 Emissions Summary

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# 1335 Adobe Drive - Bay Area AQMD Air District, Annual

# 2.1 Overall Construction <a href="Unmitigated Construction">Unmitigated Construction</a>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.1326	0.7296	0.5420	8.5000e- 004	5.4600e- 003	0.0469	0.0524	1.9600e- 003	0.0438	0.0458	0.0000	76.2250	76.2250	0.0195	0.0000	76.7113
Maximum	0.1326	0.7296	0.5420	8.5000e- 004	5.4600e- 003	0.0469	0.0524	1.9600e- 003	0.0438	0.0458	0.0000	76.2250	76.2250	0.0195	0.0000	76.7113

# **Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Year		tons/yr										MT/yr					
2018	0.1326	0.7296	0.5420	8.5000e- 004	5.4600e- 003	0.0469	0.0524	1.9600e- 003	0.0438	0.0458	0.0000	76.2249	76.2249	0.0195	0.0000	76.7112	
Maximum	0.1326	0.7296	0.5420	8.5000e- 004	5.4600e- 003	0.0469	0.0524	1.9600e- 003	0.0438	0.0458	0.0000	76.2249	76.2249	0.0195	0.0000	76.7112	

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

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-2-2018	7-1-2018	0.4306	0.4306
2	7-2-2018	9-30-2018	0.3982	0.3982
		Highest	0.4306	0.4306

# 2.2 Overall Operational

# **Unmitigated Operational**

	ROG	NOx	СО	SO2	Fugitive 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	0.0536	9.8000e- 004	0.0745	5.0000e- 005		3.4700e- 003	3.4700e- 003		3.4700e- 003	3.4700e- 003	0.3191	0.2160	0.5351	6.0000e- 004	2.0000e- 005	0.5563
Energy	1.0600e- 003	9.0500e- 003	3.8500e- 003	6.0000e- 005		7.3000e- 004	7.3000e- 004	     	7.3000e- 004	7.3000e- 004	0.0000	17.4344	17.4344	6.9000e- 004	2.9000e- 004	17.5393
Mobile	0.0190	0.0359	0.1886	3.9000e- 004	0.0337	4.1000e- 004	0.0341	9.0100e- 003	3.8000e- 004	9.3900e- 003	0.0000	34.9383	34.9383	2.2000e- 003	0.0000	34.9934
Waste						0.0000	0.0000		0.0000	0.0000	0.6536	0.0000	0.6536	0.0386	0.0000	1.6193
Water						0.0000	0.0000	<del></del>     	0.0000	0.0000	0.1447	0.6458	0.7905	0.0149	3.6000e- 004	1.2706
Total	0.0736	0.0459	0.2669	5.0000e- 004	0.0337	4.6100e- 003	0.0383	9.0100e- 003	4.5800e- 003	0.0136	1.1175	53.2345	54.3520	0.0570	6.7000e- 004	55.9789

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# 2.2 Overall Operational

# **Mitigated Operational**

	ROG	NOx	СО	SO2	Fugitive 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	0.0536	9.8000e- 004	0.0745	5.0000e- 005		3.4700e- 003	3.4700e- 003		3.4700e- 003	3.4700e- 003	0.3191	0.2160	0.5351	6.0000e- 004	2.0000e- 005	0.5563	
Energy	7.9000e- 004	6.7500e- 003	2.8700e- 003	4.0000e- 005		5.5000e- 004	5.5000e- 004		5.5000e- 004	5.5000e- 004	0.0000	14.6883	14.6883	6.4000e- 004	2.4000e- 004	14.7769	
Mobile	0.0190	0.0359	0.1886	3.9000e- 004	0.0337	4.1000e- 004	0.0341	9.0100e- 003	3.8000e- 004	9.3900e- 003	0.0000	34.9383	34.9383	2.2000e- 003	0.0000	34.9934	
Waste	;	       				0.0000	0.0000		0.0000	0.0000	0.6536	0.0000	0.6536	0.0386	0.0000	1.6193	
Water	; ! ! !	       				0.0000	0.0000		0.0000	0.0000	0.1447	0.6458	0.7905	0.0149	3.6000e- 004	1.2706	
Total	0.0734	0.0436	0.2660	4.8000e- 004	0.0337	4.4300e- 003	0.0381	9.0100e- 003	4.4000e- 003	0.0134	1.1175	50.4884	51.6058	0.0570	6.2000e- 004	53.2164	

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.37	5.01	0.37	4.00	0.00	3.90	0.47	0.00	3.93	1.32	0.00	5.16	5.05	0.09	7.46	4.93

# 3.0 Construction Detail

### **Construction Phase**

### 1335 Adobe Drive - Bay Area AQMD Air District, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/2/2018	4/6/2018	5	5	
2	Grading	Grading	4/9/2018	4/13/2018	5	5	
3	Paving	Paving	4/16/2018	4/20/2018	5	5	
4	Building Construction	Building Construction	4/23/2018	9/7/2018	5	100	
5	Architectural Coating	Architectural Coating	5/7/2018	9/21/2018	5	100	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0.43

Acres of Paving: 0

Residential Indoor: 15,744; Residential Outdoor: 5,248; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

# **Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	1.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	5.00	1.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

# **3.1 Mitigation Measures Construction**

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#### 1335 Adobe Drive - Bay Area AQMD Air District, Annual

3.2 Site Preparation - 2018

<u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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
Oli Roda	1.9600e- 003	0.0244	0.0106	2.0000e- 005		1.0500e- 003	1.0500e- 003		9.6000e- 004	9.6000e- 004	0.0000	2.2288	2.2288	6.9000e- 004	0.0000	2.2461
Total	1.9600e- 003	0.0244	0.0106	2.0000e- 005	0.0000	1.0500e- 003	1.0500e- 003	0.0000	9.6000e- 004	9.6000e- 004	0.0000	2.2288	2.2288	6.9000e- 004	0.0000	2.2461

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/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	5.0000e- 005	4.0000e- 005	3.9000e- 004	0.0000	1.0000e- 004	0.0000	1.0000e- 004	3.0000e- 005	0.0000	3.0000e- 005	0.0000	0.0921	0.0921	0.0000	0.0000	0.0922
Total	5.0000e- 005	4.0000e- 005	3.9000e- 004	0.0000	1.0000e- 004	0.0000	1.0000e- 004	3.0000e- 005	0.0000	3.0000e- 005	0.0000	0.0921	0.0921	0.0000	0.0000	0.0922

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# 1335 Adobe Drive - Bay Area AQMD Air District, Annual

3.2 Site Preparation - 2018

<u>Mitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	1.9600e- 003	0.0244	0.0106	2.0000e- 005		1.0500e- 003	1.0500e- 003	 	9.6000e- 004	9.6000e- 004	0.0000	2.2288	2.2288	6.9000e- 004	0.0000	2.2461
Total	1.9600e- 003	0.0244	0.0106	2.0000e- 005	0.0000	1.0500e- 003	1.0500e- 003	0.0000	9.6000e- 004	9.6000e- 004	0.0000	2.2288	2.2288	6.9000e- 004	0.0000	2.2461

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	5.0000e- 005	4.0000e- 005	3.9000e- 004	0.0000	1.0000e- 004	0.0000	1.0000e- 004	3.0000e- 005	0.0000	3.0000e- 005	0.0000	0.0921	0.0921	0.0000	0.0000	0.0922
Total	5.0000e- 005	4.0000e- 005	3.9000e- 004	0.0000	1.0000e- 004	0.0000	1.0000e- 004	3.0000e- 005	0.0000	3.0000e- 005	0.0000	0.0921	0.0921	0.0000	0.0000	0.0922

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#### 1335 Adobe Drive - Bay Area AQMD Air District, Annual

3.3 Grading - 2018
Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					2.1100e- 003	0.0000	2.1100e- 003	1.0600e- 003	0.0000	1.0600e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6600e- 003	0.0236	0.0194	3.0000e- 005		1.5600e- 003	1.5600e- 003		1.4900e- 003	1.4900e- 003	0.0000	2.6520	2.6520	5.1000e- 004	0.0000	2.6648
Total	2.6600e- 003	0.0236	0.0194	3.0000e- 005	2.1100e- 003	1.5600e- 003	3.6700e- 003	1.0600e- 003	1.4900e- 003	2.5500e- 003	0.0000	2.6520	2.6520	5.1000e- 004	0.0000	2.6648

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e- 004	8.0000e- 005	7.7000e- 004	0.0000	2.0000e- 004	0.0000	2.0000e- 004	5.0000e- 005	0.0000	5.0000e- 005	0.0000	0.1842	0.1842	1.0000e- 005	0.0000	0.1844
Total	1.0000e- 004	8.0000e- 005	7.7000e- 004	0.0000	2.0000e- 004	0.0000	2.0000e- 004	5.0000e- 005	0.0000	5.0000e- 005	0.0000	0.1842	0.1842	1.0000e- 005	0.0000	0.1844

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#### 1335 Adobe Drive - Bay Area AQMD Air District, Annual

3.3 Grading - 2018

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					2.1100e- 003	0.0000	2.1100e- 003	1.0600e- 003	0.0000	1.0600e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	2.6600e- 003	0.0236	0.0194	3.0000e- 005		1.5600e- 003	1.5600e- 003	 	1.4900e- 003	1.4900e- 003	0.0000	2.6520	2.6520	5.1000e- 004	0.0000	2.6648
Total	2.6600e- 003	0.0236	0.0194	3.0000e- 005	2.1100e- 003	1.5600e- 003	3.6700e- 003	1.0600e- 003	1.4900e- 003	2.5500e- 003	0.0000	2.6520	2.6520	5.1000e- 004	0.0000	2.6648

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e- 004	8.0000e- 005	7.7000e- 004	0.0000	2.0000e- 004	0.0000	2.0000e- 004	5.0000e- 005	0.0000	5.0000e- 005	0.0000	0.1842	0.1842	1.0000e- 005	0.0000	0.1844
Total	1.0000e- 004	8.0000e- 005	7.7000e- 004	0.0000	2.0000e- 004	0.0000	2.0000e- 004	5.0000e- 005	0.0000	5.0000e- 005	0.0000	0.1842	0.1842	1.0000e- 005	0.0000	0.1844

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#### 1335 Adobe Drive - Bay Area AQMD Air District, Annual

3.4 Paving - 2018
Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	Γ/yr		
1	2.3000e- 003	0.0219	0.0181	3.0000e- 005		1.2800e- 003	1.2800e- 003		1.1800e- 003	1.1800e- 003	0.0000	2.4270	2.4270	6.8000e- 004	0.0000	2.4441
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.3000e- 003	0.0219	0.0181	3.0000e- 005		1.2800e- 003	1.2800e- 003		1.1800e- 003	1.1800e- 003	0.0000	2.4270	2.4270	6.8000e- 004	0.0000	2.4441

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	1.8000e- 004	1.4000e- 004	1.3900e- 003	0.0000	3.6000e- 004	0.0000	3.6000e- 004	9.0000e- 005	0.0000	1.0000e- 004	0.0000	0.3316	0.3316	1.0000e- 005	0.0000	0.3318
Total	1.8000e- 004	1.4000e- 004	1.3900e- 003	0.0000	3.6000e- 004	0.0000	3.6000e- 004	9.0000e- 005	0.0000	1.0000e- 004	0.0000	0.3316	0.3316	1.0000e- 005	0.0000	0.3318

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3.4 Paving - 2018

<u>Mitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	Γ/yr		
1	2.3000e- 003	0.0219	0.0181	3.0000e- 005		1.2800e- 003	1.2800e- 003		1.1800e- 003	1.1800e- 003	0.0000	2.4270	2.4270	6.8000e- 004	0.0000	2.4441
Paving	0.0000				 	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.3000e- 003	0.0219	0.0181	3.0000e- 005		1.2800e- 003	1.2800e- 003		1.1800e- 003	1.1800e- 003	0.0000	2.4270	2.4270	6.8000e- 004	0.0000	2.4441

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	1.8000e- 004	1.4000e- 004	1.3900e- 003	0.0000	3.6000e- 004	0.0000	3.6000e- 004	9.0000e- 005	0.0000	1.0000e- 004	0.0000	0.3316	0.3316	1.0000e- 005	0.0000	0.3318
Total	1.8000e- 004	1.4000e- 004	1.3900e- 003	0.0000	3.6000e- 004	0.0000	3.6000e- 004	9.0000e- 005	0.0000	1.0000e- 004	0.0000	0.3316	0.3316	1.0000e- 005	0.0000	0.3318

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# 3.5 Building Construction - 2018 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
	0.0542	0.5516	0.3876	5.7000e- 004		0.0354	0.0354		0.0326	0.0326	0.0000	52.0058	52.0058	0.0162	0.0000	52.4106
Total	0.0542	0.5516	0.3876	5.7000e- 004		0.0354	0.0354		0.0326	0.0326	0.0000	52.0058	52.0058	0.0162	0.0000	52.4106

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.6000e- 004	6.7000e- 003	1.7800e- 003	1.0000e- 005	3.3000e- 004	5.0000e- 005	3.8000e- 004	9.0000e- 005	5.0000e- 005	1.4000e- 004	0.0000	1.3265	1.3265	8.0000e- 005	0.0000	1.3284
Worker	1.0000e- 003	7.7000e- 004	7.7200e- 003	2.0000e- 005	1.9800e- 003	1.0000e- 005	1.9900e- 003	5.3000e- 004	1.0000e- 005	5.4000e- 004	0.0000	1.8422	1.8422	5.0000e- 005	0.0000	1.8436
Total	1.2600e- 003	7.4700e- 003	9.5000e- 003	3.0000e- 005	2.3100e- 003	6.0000e- 005	2.3700e- 003	6.2000e- 004	6.0000e- 005	6.8000e- 004	0.0000	3.1687	3.1687	1.3000e- 004	0.0000	3.1720

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3.5 Building Construction - 2018 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					ton	s/yr							MT	/yr		
	0.0542	0.5516	0.3876	5.7000e- 004		0.0354	0.0354		0.0326	0.0326	0.0000	52.0058	52.0058	0.0162	0.0000	52.4105
Total	0.0542	0.5516	0.3876	5.7000e- 004		0.0354	0.0354		0.0326	0.0326	0.0000	52.0058	52.0058	0.0162	0.0000	52.4105

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.6000e- 004	6.7000e- 003	1.7800e- 003	1.0000e- 005	3.3000e- 004	5.0000e- 005	3.8000e- 004	9.0000e- 005	5.0000e- 005	1.4000e- 004	0.0000	1.3265	1.3265	8.0000e- 005	0.0000	1.3284
Worker	1.0000e- 003	7.7000e- 004	7.7200e- 003	2.0000e- 005	1.9800e- 003	1.0000e- 005	1.9900e- 003	5.3000e- 004	1.0000e- 005	5.4000e- 004	0.0000	1.8422	1.8422	5.0000e- 005	0.0000	1.8436
Total	1.2600e- 003	7.4700e- 003	9.5000e- 003	3.0000e- 005	2.3100e- 003	6.0000e- 005	2.3700e- 003	6.2000e- 004	6.0000e- 005	6.8000e- 004	0.0000	3.1687	3.1687	1.3000e- 004	0.0000	3.1720

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# 3.6 Architectural Coating - 2018 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Archit. Coating	0.0547					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0149	0.1003	0.0927	1.5000e- 004		7.5300e- 003	7.5300e- 003	       	7.5300e- 003	7.5300e- 003	0.0000	12.7663	12.7663	1.2100e- 003	0.0000	12.7966
Total	0.0697	0.1003	0.0927	1.5000e- 004		7.5300e- 003	7.5300e- 003		7.5300e- 003	7.5300e- 003	0.0000	12.7663	12.7663	1.2100e- 003	0.0000	12.7966

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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- 004	1.5000e- 004	1.5400e- 003	0.0000	4.0000e- 004	0.0000	4.0000e- 004	1.1000e- 004	0.0000	1.1000e- 004	0.0000	0.3684	0.3684	1.0000e- 005	0.0000	0.3687
Total	2.0000e- 004	1.5000e- 004	1.5400e- 003	0.0000	4.0000e- 004	0.0000	4.0000e- 004	1.1000e- 004	0.0000	1.1000e- 004	0.0000	0.3684	0.3684	1.0000e- 005	0.0000	0.3687

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3.6 Architectural Coating - 2018 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					ton	s/yr							МТ	-/yr		
Archit. Coating	0.0547					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0149	0.1003	0.0927	1.5000e- 004		7.5300e- 003	7.5300e- 003	 	7.5300e- 003	7.5300e- 003	0.0000	12.7663	12.7663	1.2100e- 003	0.0000	12.7966
Total	0.0697	0.1003	0.0927	1.5000e- 004		7.5300e- 003	7.5300e- 003		7.5300e- 003	7.5300e- 003	0.0000	12.7663	12.7663	1.2100e- 003	0.0000	12.7966

# **Mitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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- 004	1.5000e- 004	1.5400e- 003	0.0000	4.0000e- 004	0.0000	4.0000e- 004	1.1000e- 004	0.0000	1.1000e- 004	0.0000	0.3684	0.3684	1.0000e- 005	0.0000	0.3687
Total	2.0000e- 004	1.5000e- 004	1.5400e- 003	0.0000	4.0000e- 004	0.0000	4.0000e- 004	1.1000e- 004	0.0000	1.1000e- 004	0.0000	0.3684	0.3684	1.0000e- 005	0.0000	0.3687

# 4.0 Operational Detail - Mobile

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# **4.1 Mitigation Measures Mobile**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Mitigated	0.0190	0.0359	0.1886	3.9000e- 004	0.0337	4.1000e- 004	0.0341	9.0100e- 003	3.8000e- 004	9.3900e- 003	0.0000	34.9383	34.9383	2.2000e- 003	0.0000	34.9934
Unmitigated	0.0190	0.0359	0.1886	3.9000e- 004	0.0337	4.1000e- 004	0.0341	9.0100e- 003	3.8000e- 004	9.3900e- 003	0.0000	34.9383	34.9383	2.2000e- 003	0.0000	34.9934

# **4.2 Trip Summary Information**

	Aver	rage Daily Trip Ra	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	40.67	39.69	33.88	91,368	91,368
Total	40.67	39.69	33.88	91,368	91,368

# 4.3 Trip Type Information

		Miles			Trip %		.,		e %
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
Condo/Townhouse	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

#### 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.566452	0.045204	0.186626	0.124693	0.020348	0.004929	0.011681	0.006406	0.001296	0.000623	0.027486	0.000775	0.003482

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# 5.0 Energy Detail

Historical Energy Use: N

# **5.1 Mitigation Measures Energy**

Exceed Title 24

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Electricity Mitigated		 				0.0000	0.0000		0.0000	0.0000	0.0000	6.8671	6.8671	4.9000e- 004	1.0000e- 004	6.9092
Electricity Unmitigated	fi	       	1			0.0000	0.0000		0.0000	0.0000	0.0000	6.9515	6.9515	4.9000e- 004	1.0000e- 004	6.9941
	7.9000e- 004	6.7500e- 003	2.8700e- 003	4.0000e- 005		5.5000e- 004	5.5000e- 004		5.5000e- 004	5.5000e- 004	0.0000	7.8213	7.8213	1.5000e- 004	1.4000e- 004	7.8677
Unmitigated	1.0600e- 003	9.0500e- 003	3.8500e- 003	6.0000e- 005		7.3000e- 004	7.3000e- 004		7.3000e- 004	7.3000e- 004	0.0000	10.4830	10.4830	2.0000e- 004	1.9000e- 004	10.5453

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# 5.2 Energy by Land Use - NaturalGas <u>Unmitigated</u>

	NaturalGa s 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					ton	s/yr							MT	/yr		
Condo/Townhous e	196443	1.0600e- 003	9.0500e- 003	3.8500e- 003	6.0000e- 005		7.3000e- 004	7.3000e- 004		7.3000e- 004	7.3000e- 004	0.0000	10.4830	10.4830	2.0000e- 004	1.9000e- 004	10.5453
Total		1.0600e- 003	9.0500e- 003	3.8500e- 003	6.0000e- 005		7.3000e- 004	7.3000e- 004		7.3000e- 004	7.3000e- 004	0.0000	10.4830	10.4830	2.0000e- 004	1.9000e- 004	10.5453

# **Mitigated**

	NaturalGa s 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					ton	s/yr							MT	/yr		
Condo/Townhous e	146565	7.9000e- 004	6.7500e- 003	2.8700e- 003	4.0000e- 005		5.5000e- 004	5.5000e- 004		5.5000e- 004	5.5000e- 004	0.0000	7.8213	7.8213	1.5000e- 004	1.4000e- 004	7.8677
Total		7.9000e- 004	6.7500e- 003	2.8700e- 003	4.0000e- 005		5.5000e- 004	5.5000e- 004		5.5000e- 004	5.5000e- 004	0.0000	7.8213	7.8213	1.5000e- 004	1.4000e- 004	7.8677

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5.3 Energy by Land Use - Electricity Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		MT	-/yr	
Condo/Townhous e	37396.2	6.9515	4.9000e- 004	1.0000e- 004	6.9941
Total		6.9515	4.9000e- 004	1.0000e- 004	6.9941

# **Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		МТ	-/yr	
Condo/Townhous e	36942.2	6.8671	4.9000e- 004	1.0000e- 004	6.9092
Total		6.8671	4.9000e- 004	1.0000e- 004	6.9092

# 6.0 Area Detail

# **6.1 Mitigation Measures Area**

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	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Mitigated	0.0536	9.8000e- 004	0.0745	5.0000e- 005		3.4700e- 003	3.4700e- 003		3.4700e- 003	3.4700e- 003	0.3191	0.2160	0.5351	6.0000e- 004	2.0000e- 005	0.5563
Unmitigated	0.0536	9.8000e- 004	0.0745	5.0000e- 005		3.4700e- 003	3.4700e- 003		3.4700e- 003	3.4700e- 003	0.3191	0.2160	0.5351	6.0000e- 004	2.0000e- 005	0.5563

# 6.2 Area by SubCategory Unmitigated

	ROG	NOx	СО	SO2	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					ton	s/yr							МТ	/yr		
Architectural Coating	5.4700e- 003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0304		i i			0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0162	3.7000e- 004	0.0222	4.0000e- 005		3.1800e- 003	3.1800e- 003		3.1800e- 003	3.1800e- 003	0.3191	0.1311	0.4502	5.1000e- 004	2.0000e- 005	0.4693
Landscaping	1.6000e- 003	6.1000e- 004	0.0522	0.0000	 	2.9000e- 004	2.9000e- 004		2.9000e- 004	2.9000e- 004	0.0000	0.0849	0.0849	8.0000e- 005	0.0000	0.0870
Total	0.0536	9.8000e- 004	0.0745	4.0000e- 005		3.4700e- 003	3.4700e- 003		3.4700e- 003	3.4700e- 003	0.3191	0.2160	0.5351	5.9000e- 004	2.0000e- 005	0.5563

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#### 1335 Adobe Drive - Bay Area AQMD Air District, Annual

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					ton	s/yr							МТ	/yr		
Architectural Coating	5.4700e- 003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0304					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0162	3.7000e- 004	0.0222	4.0000e- 005		3.1800e- 003	3.1800e- 003		3.1800e- 003	3.1800e- 003	0.3191	0.1311	0.4502	5.1000e- 004	2.0000e- 005	0.4693
Landscaping	1.6000e- 003	6.1000e- 004	0.0522	0.0000		2.9000e- 004	2.9000e- 004		2.9000e- 004	2.9000e- 004	0.0000	0.0849	0.0849	8.0000e- 005	0.0000	0.0870
Total	0.0536	9.8000e- 004	0.0745	4.0000e- 005		3.4700e- 003	3.4700e- 003		3.4700e- 003	3.4700e- 003	0.3191	0.2160	0.5351	5.9000e- 004	2.0000e- 005	0.5563

# 7.0 Water Detail

# 7.1 Mitigation Measures Water

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	Total CO2	CH4	N2O	CO2e
Category		MT	√yr	
Willigatou	0.7905	0.0149	3.6000e- 004	1.2706
Ommigatou	0.7905	0.0149	3.6000e- 004	1.2706

# 7.2 Water by Land Use Unmitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		МТ	-/yr	
Condo/Townhous e	0.456078 / 0.287528		0.0149	3.6000e- 004	1.2706
Total		0.7905	0.0149	3.6000e- 004	1.2706

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7.2 Water by Land Use

# **Mitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		MT	-/yr	
Condo/Townhous e	0.456078 / 0.287528		0.0149	3.6000e- 004	1.2706
Total		0.7905	0.0149	3.6000e- 004	1.2706

#### 8.0 Waste Detail

# 8.1 Mitigation Measures Waste

## Category/Year

	Total CO2	CH4	N2O	CO2e					
	MT/yr								
gatea	0.6536	0.0386	0.0000	1.6193					
Unmitigated	0.6536	0.0386	0.0000	1.6193					

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8.2 Waste by Land Use Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		МТ	-/yr	
Condo/Townhous e	3.22	0.6536	0.0386	0.0000	1.6193
Total		0.6536	0.0386	0.0000	1.6193

# **Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		МТ	-/yr	
Condo/Townhous e	3.22	0.6536	0.0386	0.0000	1.6193
Total		0.6536	0.0386	0.0000	1.6193

# 9.0 Operational Offroad

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

#### 1335 Adobe Drive - Bay Area AQMD Air District, Annual

# 10.0 Stationary Equipment

# **Fire Pumps and Emergency Generators**

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

#### **Boilers**

Environment Trans	Nivershau	Heat land /Day	Heat land Wear	Deiler Detine	Final Time
Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

#### **User Defined Equipment**

Equipment Type	Number
----------------	--------

# 11.0 Vegetation

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#### 1335 Adobe Drive - Bay Area AQMD Air District, Summer

# 1335 Adobe Drive Bay Area AQMD Air District, Summer

## 1.0 Project Characteristics

#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	7.00	Dwelling Unit	0.43	7,775.00	20

#### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	64	
Climate Zone	5			Operational Year	2019	
Utility Company	Pacific Gas & Electric	Company				
CO2 Intensity (lb/MWhr)	409.81	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity 0 (Ib/MWhr)	0.006	

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - Intensity Factors for CO2 adjusted based on PG&E RPS reductions.

Land Use - \*Applicant provided

Construction Phase - \*Applicant provided

Grading - \*applicant provided

Energy Use -

Energy Mitigation -

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Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	100.00
tblConstructionPhase	NumDays	2.00	5.00
tblConstructionPhase	NumDays	1.00	5.00
tblConstructionPhase	PhaseEndDate	4/1/2018	9/21/2018
tblConstructionPhase	PhaseEndDate	4/1/2018	9/7/2018
tblConstructionPhase	PhaseEndDate	4/1/2018	4/13/2018
tblConstructionPhase	PhaseEndDate	4/1/2018	4/20/2018
tblConstructionPhase	PhaseEndDate	4/1/2018	4/6/2018
tblConstructionPhase	PhaseStartDate	4/2/2018	5/7/2018
tblConstructionPhase	PhaseStartDate	4/2/2018	4/23/2018
tblConstructionPhase	PhaseStartDate	4/2/2018	4/9/2018
tblConstructionPhase	PhaseStartDate	4/2/2018	4/16/2018
tblGrading	AcresOfGrading	0.00	0.43
tblGrading	AcresOfGrading	2.50	0.00
tblLandUse	BuildingSpaceSquareFeet	7,000.00	7,775.00
tblLandUse	LandUseSquareFeet	7,000.00	7,775.00
tblLandUse	LotAcreage	0.44	0.43
tblProjectCharacteristics	CO2IntensityFactor	641.35	409.81
tblProjectCharacteristics	OperationalYear	2018	2019

# 2.0 Emissions Summary

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# 1335 Adobe Drive - Bay Area AQMD Air District, Summer

# 2.1 Overall Construction (Maximum Daily Emission)

#### **Unmitigated Construction**

	ROG	NOx	СО	SO2	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/d	day							lb/d	lay		
2018	2.5085	13.1857	9.8399	0.0152	0.9261	0.8606	1.5494	0.4454	0.8038	1.0402	0.0000	1,509.944 4	1,509.944 4	0.3868	0.0000	1,519.615 1
Maximum	2.5085	13.1857	9.8399	0.0152	0.9261	0.8606	1.5494	0.4454	0.8038	1.0402	0.0000	1,509.944 4	1,509.944 4	0.3868	0.0000	1,519.615 1

# **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/e	day							lb/d	lay		
2018	2.5085	13.1857	9.8399	0.0152	0.9261	0.8606	1.5494	0.4454	0.8038	1.0402	0.0000	1,509.944 4	1,509.944 4	0.3868	0.0000	1,519.615 1
Maximum	2.5085	13.1857	9.8399	0.0152	0.9261	0.8606	1.5494	0.4454	0.8038	1.0402	0.0000	1,509.944 4	1,509.944 4	0.3868	0.0000	1,519.615 1

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

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# 1335 Adobe Drive - Bay Area AQMD Air District, Summer

# 2.2 Overall Operational Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/d	lay		
Area	3.0930	0.0704	4.3839	7.3600e- 003		0.5431	0.5431		0.5431	0.5431	58.5959	26.9810	85.5770	0.0812	4.1400e- 003	88.8414
Energy	5.8000e- 003	0.0496	0.0211	3.2000e- 004		4.0100e- 003	4.0100e- 003	! ! !	4.0100e- 003	4.0100e- 003		63.3178	63.3178	1.2100e- 003	1.1600e- 003	63.6941
Mobile	0.1203	0.1905	1.0786	2.3200e- 003	0.1979	2.3100e- 003	0.2002	0.0527	2.1700e- 003	0.0549		231.6154	231.6154	0.0136	1	231.9555
Total	3.2191	0.3105	5.4835	0.0100	0.1979	0.5495	0.7473	0.0527	0.5493	0.6021	58.5959	321.9143	380.5102	0.0960	5.3000e- 003	384.4909

# **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/e	day							lb/d	day		
Area	3.0930	0.0704	4.3839	7.3600e- 003		0.5431	0.5431		0.5431	0.5431	58.5959	26.9810	85.5770	0.0812	4.1400e- 003	88.8414
Energy	4.3300e- 003	0.0370	0.0158	2.4000e- 004		2.9900e- 003	2.9900e- 003		2.9900e- 003	2.9900e- 003		47.2408	47.2408	9.1000e- 004	8.7000e- 004	47.5216
Mobile	0.1203	0.1905	1.0786	2.3200e- 003	0.1979	2.3100e- 003	0.2002	0.0527	2.1700e- 003	0.0549		231.6154	231.6154	0.0136	1	231.9555
Total	3.2176	0.2979	5.4782	9.9200e- 003	0.1979	0.5484	0.7463	0.0527	0.5483	0.6010	58.5959	305.8373	364.4332	0.0957	5.0100e- 003	368.3184

#### 1335 Adobe Drive - Bay Area AQMD Air District, Summer

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.05	4.06	0.10	0.80	0.00	0.19	0.14	0.00	0.19	0.17	0.00	4.99	4.23	0.31	5.47	4.21

#### 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	4/2/2018	4/6/2018	5	5	
2	Grading	Grading	4/9/2018	4/13/2018	5	5	
3	Paving	Paving	4/16/2018	4/20/2018	5	5	
4	Building Construction	Building Construction	4/23/2018	9/7/2018	5	100	
5	Architectural Coating	Architectural Coating	5/7/2018	9/21/2018	5	100	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0.43

Acres of Paving: 0

Residential Indoor: 15,744; Residential Outdoor: 5,248; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

1335 Adobe Drive - Bay Area AQMD Air District, Summer

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

# **Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	1.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	5.00	1.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

# **3.1 Mitigation Measures Construction**

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3.2 Site Preparation - 2018

<u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.7858	9.7572	4.2514	9.7600e- 003		0.4180	0.4180		0.3846	0.3846		982.7113	982.7113	0.3059		990.3596
Total	0.7858	9.7572	4.2514	9.7600e- 003	0.0000	0.4180	0.4180	0.0000	0.3846	0.3846		982.7113	982.7113	0.3059		990.3596

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	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	0.0211	0.0136	0.1675	4.4000e- 004	0.0411	2.8000e- 004	0.0414	0.0109	2.6000e- 004	0.0112		43.6782	43.6782	1.2800e- 003		43.7101
Total	0.0211	0.0136	0.1675	4.4000e- 004	0.0411	2.8000e- 004	0.0414	0.0109	2.6000e- 004	0.0112		43.6782	43.6782	1.2800e- 003		43.7101

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# 1335 Adobe Drive - Bay Area AQMD Air District, Summer

3.2 Site Preparation - 2018

<u>Mitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.7858	9.7572	4.2514	9.7600e- 003		0.4180	0.4180		0.3846	0.3846	0.0000	982.7113	982.7113	0.3059		990.3596
Total	0.7858	9.7572	4.2514	9.7600e- 003	0.0000	0.4180	0.4180	0.0000	0.3846	0.3846	0.0000	982.7113	982.7113	0.3059		990.3596

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
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	0.0211	0.0136	0.1675	4.4000e- 004	0.0411	2.8000e- 004	0.0414	0.0109	2.6000e- 004	0.0112		43.6782	43.6782	1.2800e- 003		43.7101
Total	0.0211	0.0136	0.1675	4.4000e- 004	0.0411	2.8000e- 004	0.0414	0.0109	2.6000e- 004	0.0112		43.6782	43.6782	1.2800e- 003		43.7101

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# 1335 Adobe Drive - Bay Area AQMD Air District, Summer

3.3 Grading - 2018
Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Fugitive Dust					0.8440	0.0000	0.8440	0.4236	0.0000	0.4236			0.0000			0.0000
Off-Road	1.0643	9.4295	7.7762	0.0120		0.6228	0.6228		0.5943	0.5943		1,169.350 2	1,169.350 2	0.2254		1,174.985 7
Total	1.0643	9.4295	7.7762	0.0120	0.8440	0.6228	1.4667	0.4236	0.5943	1.0179		1,169.350 2	1,169.350 2	0.2254		1,174.985 7

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day				lb/d	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	0.0421	0.0272	0.3350	8.8000e- 004	0.0822	5.5000e- 004	0.0827	0.0218	5.1000e- 004	0.0223		87.3564	87.3564	2.5500e- 003		87.4202
Total	0.0421	0.0272	0.3350	8.8000e- 004	0.0822	5.5000e- 004	0.0827	0.0218	5.1000e- 004	0.0223		87.3564	87.3564	2.5500e- 003		87.4202

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# 1335 Adobe Drive - Bay Area AQMD Air District, Summer

3.3 Grading - 2018

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/d	day							lb/d	lay		
Fugitive Dust					0.8440	0.0000	0.8440	0.4236	0.0000	0.4236			0.0000			0.0000
Off-Road	1.0643	9.4295	7.7762	0.0120		0.6228	0.6228		0.5943	0.5943	0.0000	1,169.350 2	1,169.350 2	0.2254		1,174.985 7
Total	1.0643	9.4295	7.7762	0.0120	0.8440	0.6228	1.4667	0.4236	0.5943	1.0179	0.0000	1,169.350 2	1,169.350 2	0.2254		1,174.985 7

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
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	0.0421	0.0272	0.3350	8.8000e- 004	0.0822	5.5000e- 004	0.0827	0.0218	5.1000e- 004	0.0223		87.3564	87.3564	2.5500e- 003		87.4202
Total	0.0421	0.0272	0.3350	8.8000e- 004	0.0822	5.5000e- 004	0.0827	0.0218	5.1000e- 004	0.0223		87.3564	87.3564	2.5500e- 003		87.4202

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3.4 Paving - 2018
Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Off-Road	0.9202	8.7447	7.2240	0.0113		0.5109	0.5109		0.4735	0.4735		1,070.137 2	1,070.137 2	0.3017		1,077.679 8
Paving	0.0000		i i			0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9202	8.7447	7.2240	0.0113		0.5109	0.5109		0.4735	0.4735		1,070.137 2	1,070.137 2	0.3017		1,077.679 8

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	lay		
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	0.0758	0.0490	0.6030	1.5800e- 003	0.1479	1.0000e- 003	0.1489	0.0392	9.2000e- 004	0.0401		157.2415	157.2415	4.5900e- 003		157.3563
Total	0.0758	0.0490	0.6030	1.5800e- 003	0.1479	1.0000e- 003	0.1489	0.0392	9.2000e- 004	0.0401		157.2415	157.2415	4.5900e- 003		157.3563

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3.4 Paving - 2018

<u>Mitigated Construction On-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Off-Road	0.9202	8.7447	7.2240	0.0113		0.5109	0.5109		0.4735	0.4735	0.0000	1,070.137 2	1,070.137 2	0.3017		1,077.679 8
Paving	0.0000		]   		 	0.0000	0.0000		0.0000	0.0000		I I I	0.0000			0.0000
Total	0.9202	8.7447	7.2240	0.0113		0.5109	0.5109		0.4735	0.4735	0.0000	1,070.137 2	1,070.137 2	0.3017		1,077.679 8

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
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	0.0758	0.0490	0.6030	1.5800e- 003	0.1479	1.0000e- 003	0.1489	0.0392	9.2000e- 004	0.0401		157.2415	157.2415	4.5900e- 003		157.3563
Total	0.0758	0.0490	0.6030	1.5800e- 003	0.1479	1.0000e- 003	0.1489	0.0392	9.2000e- 004	0.0401		157.2415	157.2415	4.5900e- 003		157.3563

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# 3.5 Building Construction - 2018 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Off-Road	1.0848	11.0316	7.7512	0.0114		0.7087	0.7087	1 1	0.6520	0.6520		1,146.532 3	1,146.532 3	0.3569		1,155.455 5
Total	1.0848	11.0316	7.7512	0.0114		0.7087	0.7087		0.6520	0.6520		1,146.532 3	1,146.532 3	0.3569		1,155.455 5

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	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	5.1600e- 003	0.1320	0.0334	2.8000e- 004	6.7700e- 003	1.0200e- 003	7.7900e- 003	1.9500e- 003	9.8000e- 004	2.9300e- 003		29.5498	29.5498	1.6200e- 003	       	29.5904
Worker	0.0211	0.0136	0.1675	4.4000e- 004	0.0411	2.8000e- 004	0.0414	0.0109	2.6000e- 004	0.0112		43.6782	43.6782	1.2800e- 003	       	43.7101
Total	0.0262	0.1456	0.2010	7.2000e- 004	0.0478	1.3000e- 003	0.0491	0.0128	1.2400e- 003	0.0141		73.2280	73.2280	2.9000e- 003		73.3005

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# 3.5 Building Construction - 2018 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/d	day							lb/c	lay		
	1.0848	11.0316	7.7512	0.0114		0.7087	0.7087	1 1	0.6520	0.6520	0.0000	1,146.532 3	1,146.532 3	0.3569		1,155.455 5
Total	1.0848	11.0316	7.7512	0.0114		0.7087	0.7087		0.6520	0.6520	0.0000	1,146.532 3	1,146.532 3	0.3569		1,155.455 5

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	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	5.1600e- 003	0.1320	0.0334	2.8000e- 004	6.7700e- 003	1.0200e- 003	7.7900e- 003	1.9500e- 003	9.8000e- 004	2.9300e- 003		29.5498	29.5498	1.6200e- 003		29.5904
Worker	0.0211	0.0136	0.1675	4.4000e- 004	0.0411	2.8000e- 004	0.0414	0.0109	2.6000e- 004	0.0112		43.6782	43.6782	1.2800e- 003		43.7101
Total	0.0262	0.1456	0.2010	7.2000e- 004	0.0478	1.3000e- 003	0.0491	0.0128	1.2400e- 003	0.0141		73.2280	73.2280	2.9000e- 003		73.3005

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# 1335 Adobe Drive - Bay Area AQMD Air District, Summer

# 3.6 Architectural Coating - 2018 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.0946					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	     	282.1171	
Total	1.3932	2.0058	1.8542	2.9700e- 003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171	

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 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
1 .	4.2100e- 003	2.7200e- 003	0.0335	9.0000e- 005	8.2100e- 003	6.0000e- 005	8.2700e- 003	2.1800e- 003	5.0000e- 005	2.2300e- 003		8.7356	8.7356	2.6000e- 004	, ! ! !	8.7420
Total	4.2100e- 003	2.7200e- 003	0.0335	9.0000e- 005	8.2100e- 003	6.0000e- 005	8.2700e- 003	2.1800e- 003	5.0000e- 005	2.2300e- 003		8.7356	8.7356	2.6000e- 004		8.7420

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#### 1335 Adobe Drive - Bay Area AQMD Air District, Summer

# 3.6 Architectural Coating - 2018 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/d	day							lb/d	lay		
Archit. Coating	1.0946					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e- 003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267	     	282.1171
Total	1.3932	2.0058	1.8542	2.9700e- 003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171

# **Mitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	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	4.2100e- 003	2.7200e- 003	0.0335	9.0000e- 005	8.2100e- 003	6.0000e- 005	8.2700e- 003	2.1800e- 003	5.0000e- 005	2.2300e- 003		8.7356	8.7356	2.6000e- 004		8.7420
Total	4.2100e- 003	2.7200e- 003	0.0335	9.0000e- 005	8.2100e- 003	6.0000e- 005	8.2700e- 003	2.1800e- 003	5.0000e- 005	2.2300e- 003		8.7356	8.7356	2.6000e- 004		8.7420

# 4.0 Operational Detail - Mobile

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# 1335 Adobe Drive - Bay Area AQMD Air District, Summer

# **4.1 Mitigation Measures Mobile**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	lay		
Mitigated	0.1203	0.1905	1.0786	2.3200e- 003	0.1979	2.3100e- 003	0.2002	0.0527	2.1700e- 003	0.0549		231.6154	231.6154	0.0136		231.9555
Unmitigated	0.1203	0.1905	1.0786	2.3200e- 003	0.1979	2.3100e- 003	0.2002	0.0527	2.1700e- 003	0.0549		231.6154	231.6154	0.0136	       	231.9555

# **4.2 Trip Summary Information**

	Avei	rage Daily Trip Ra	ite	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	40.67	39.69	33.88	91,368	91,368
Total	40.67	39.69	33.88	91,368	91,368

# 4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
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
Condo/Townhouse	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

#### 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.566452	0.045204	0.186626	0.124693	0.020348	0.004929	0.011681	0.006406	0.001296	0.000623	0.027486	0.000775	0.003482

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# 1335 Adobe Drive - Bay Area AQMD Air District, Summer

# 5.0 Energy Detail

Historical Energy Use: N

# **5.1 Mitigation Measures Energy**

Exceed Title 24

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	lay							lb/c	lay		
NaturalGas Mitigated	4.3300e- 003	0.0370	0.0158	2.4000e- 004		2.9900e- 003	2.9900e- 003		2.9900e- 003	2.9900e- 003		47.2408	47.2408	9.1000e- 004	8.7000e- 004	47.5216
NaturalGas Unmitigated	5.8000e- 003	0.0496	0.0211	3.2000e- 004		4.0100e- 003	4.0100e- 003		4.0100e- 003	4.0100e- 003		63.3178	63.3178	1.2100e- 003	1.1600e- 003	63.6941

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# 1335 Adobe Drive - Bay Area AQMD Air District, Summer

# 5.2 Energy by Land Use - NaturalGas <u>Unmitigated</u>

	NaturalGa s 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/d	day							lb/c	lay		
Condo/Townhous e	538.201	5.8000e- 003	0.0496	0.0211	3.2000e- 004		4.0100e- 003	4.0100e- 003		4.0100e- 003	4.0100e- 003		63.3178	63.3178	1.2100e- 003	1.1600e- 003	63.6941
Total		5.8000e- 003	0.0496	0.0211	3.2000e- 004		4.0100e- 003	4.0100e- 003		4.0100e- 003	4.0100e- 003		63.3178	63.3178	1.2100e- 003	1.1600e- 003	63.6941

#### **Mitigated**

	NaturalGa s 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/d	day							lb/d	day		
Condo/Townhous e	0.401547	4.3300e- 003	0.0370	0.0158	2.4000e- 004		2.9900e- 003	2.9900e- 003	1 1 1	2.9900e- 003	2.9900e- 003		47.2408	47.2408	9.1000e- 004	8.7000e- 004	47.5216
Total		4.3300e- 003	0.0370	0.0158	2.4000e- 004		2.9900e- 003	2.9900e- 003		2.9900e- 003	2.9900e- 003		47.2408	47.2408	9.1000e- 004	8.7000e- 004	47.5216

#### 6.0 Area Detail

# **6.1 Mitigation Measures Area**

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# 1335 Adobe Drive - Bay Area AQMD Air District, Summer

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	lay		
Mitigated	3.0930	0.0704	4.3839	7.3600e- 003		0.5431	0.5431		0.5431	0.5431	58.5959	26.9810	85.5770	0.0812	4.1400e- 003	88.8414
Unmitigated	3.0930	0.0704	4.3839	7.3600e- 003		0.5431	0.5431		0.5431	0.5431	58.5959	26.9810	85.5770	0.0812	4.1400e- 003	88.8414

# 6.2 Area by SubCategory

# **Unmitigated**

	ROG	NOx	СО	SO2	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/d	day							lb/d	day		
Architectural Coating	0.0300					0.0000	0.0000		0.0000	0.0000			0.0000	 		0.0000
Consumer Products	0.1664					0.0000	0.0000		0.0000	0.0000			0.0000		i i	0.0000
Hearth	2.8788	0.0636	3.8035	7.3300e- 003		0.5400	0.5400		0.5400	0.5400	58.5959	25.9412	84.5371	0.0802	4.1400e- 003	87.7760
Landscaping	0.0178	6.7200e- 003	0.5804	3.0000e- 005		3.1800e- 003	3.1800e- 003		3.1800e- 003	3.1800e- 003		1.0399	1.0399	1.0200e- 003		1.0654
Total	3.0930	0.0704	4.3839	7.3600e- 003		0.5431	0.5431		0.5431	0.5431	58.5959	26.9811	85.5770	0.0812	4.1400e- 003	88.8414

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#### 1335 Adobe Drive - Bay Area AQMD Air District, Summer

# 6.2 Area by SubCategory

#### **Mitigated**

	ROG	NOx	СО	SO2	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/e	day							lb/d	day		
Architectural Coating	0.0300					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1664					0.0000	0.0000	1 1 1 1	0.0000	0.0000			0.0000			0.0000
Hearth	2.8788	0.0636	3.8035	7.3300e- 003		0.5400	0.5400	1 1 1 1 1	0.5400	0.5400	58.5959	25.9412	84.5371	0.0802	4.1400e- 003	87.7760
Landscaping	0.0178	6.7200e- 003	0.5804	3.0000e- 005		3.1800e- 003	3.1800e- 003	1 1 1 1	3.1800e- 003	3.1800e- 003		1.0399	1.0399	1.0200e- 003		1.0654
Total	3.0930	0.0704	4.3839	7.3600e- 003		0.5431	0.5431		0.5431	0.5431	58.5959	26.9811	85.5770	0.0812	4.1400e- 003	88.8414

#### 7.0 Water Detail

# 7.1 Mitigation Measures Water

#### 8.0 Waste Detail

# **8.1 Mitigation Measures Waste**

# 9.0 Operational Offroad

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

# 10.0 Stationary Equipment

# 1335 Adobe Drive - Bay Area AQMD Air District, Summer

# **Fire Pumps and Emergency Generators**

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

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

#### **User Defined Equipment**

Equipment Type	Number
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# 11.0 Vegetation

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1335 Adobe Drive - Bay Area AQMD Air District, Winter

# 1335 Adobe Drive Bay Area AQMD Air District, Winter

# 1.0 Project Characteristics

#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	7.00	Dwelling Unit	0.43	7,775.00	20

#### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	64
Climate Zone	5			Operational Year	2019
Utility Company	Pacific Gas & Elec	etric Company			
CO2 Intensity	409.81	CH4 Intensity	0.029	N2O Intensity (lb/MWhr)	0.006

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - Intensity Factors for CO2 adjusted based on PG&E RPS reductions.

Land Use - \*Applicant provided

Construction Phase - \*Applicant provided

Grading - \*applicant provided

Energy Use -

Energy Mitigation -

1335 Adobe Drive - Bay Area AQMD Air District, Winter

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Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	100.00
tblConstructionPhase	NumDays	2.00	5.00
tblConstructionPhase	NumDays	1.00	5.00
tblConstructionPhase	PhaseEndDate	4/1/2018	9/21/2018
tblConstructionPhase	PhaseEndDate	4/1/2018	9/7/2018
tblConstructionPhase	PhaseEndDate	4/1/2018	4/13/2018
tblConstructionPhase	PhaseEndDate	4/1/2018	4/20/2018
tblConstructionPhase	PhaseEndDate	4/1/2018	4/6/2018
tblConstructionPhase	PhaseStartDate	4/2/2018	5/7/2018
tblConstructionPhase	PhaseStartDate	4/2/2018	4/23/2018
tblConstructionPhase	PhaseStartDate	4/2/2018	4/9/2018
tblConstructionPhase	PhaseStartDate	4/2/2018	4/16/2018
tblGrading	AcresOfGrading	0.00	0.43
tblGrading	AcresOfGrading	2.50	0.00
tblLandUse	BuildingSpaceSquareFeet	7,000.00	7,775.00
tblLandUse	LandUseSquareFeet	7,000.00	7,775.00
tblLandUse	LotAcreage	0.44	0.43
tblProjectCharacteristics	CO2IntensityFactor	641.35	409.81
tblProjectCharacteristics	OperationalYear	2018	2019

# 2.0 Emissions Summary

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#### 1335 Adobe Drive - Bay Area AQMD Air District, Winter

# 2.1 Overall Construction (Maximum Daily Emission)

#### **Unmitigated Construction**

	ROG	NOx	СО	SO2	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/d	day							lb/d	lay		
2018	2.5102	13.1915	9.8346	0.0151	0.9261	0.8606	1.5494	0.4454	0.8039	1.0402	0.0000	1,505.092 2	1,505.092 2	0.3869	0.0000	1,514.764 2
Maximum	2.5102	13.1915	9.8346	0.0151	0.9261	0.8606	1.5494	0.4454	0.8039	1.0402	0.0000	1,505.092 2	1,505.092 2	0.3869	0.0000	1,514.764 2

# **Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					lb/e	day							lb/d	day		
2018	2.5102	13.1915	9.8346	0.0151	0.9261	0.8606	1.5494	0.4454	0.8039	1.0402	0.0000	1,505.092 2	1,505.092 2	0.3869	0.0000	1,514.764 2
Maximum	2.5102	13.1915	9.8346	0.0151	0.9261	0.8606	1.5494	0.4454	0.8039	1.0402	0.0000	1,505.092 2	1,505.092 2	0.3869	0.0000	1,514.764 2

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

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# 1335 Adobe Drive - Bay Area AQMD Air District, Winter

2.2 Overall Operational Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Area	3.0930	0.0704	4.3839	7.3600e- 003		0.5431	0.5431		0.5431	0.5431	58.5959	26.9810	85.5770	0.0812	4.1400e- 003	88.8414	
Energy	5.8000e- 003	0.0496	0.0211	3.2000e- 004		4.0100e- 003	4.0100e- 003		4.0100e- 003	4.0100e- 003		63.3178	63.3178	1.2100e- 003	1.1600e- 003	63.6941	
Mobile	0.1078	0.2116	1.1310	2.1600e- 003	0.1979	2.3200e- 003	0.2002	0.0527	2.1800e- 003	0.0549		215.8950	215.8950	0.0142		216.2495	
Total	3.2065	0.3315	5.5359	9.8400e- 003	0.1979	0.5495	0.7473	0.0527	0.5493	0.6021	58.5959	306.1938	364.7897	0.0966	5.3000e- 003	368.7849	

# **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	3.0930	0.0704	4.3839	7.3600e- 003		0.5431	0.5431		0.5431	0.5431	58.5959	26.9810	85.5770	0.0812	4.1400e- 003	88.8414		
Energy	4.3300e- 003	0.0370	0.0158	2.4000e- 004		2.9900e- 003	2.9900e- 003		2.9900e- 003	2.9900e- 003		47.2408	47.2408	9.1000e- 004	8.7000e- 004	47.5216		
Mobile	0.1078	0.2116	1.1310	2.1600e- 003	0.1979	2.3200e- 003	0.2002	0.0527	2.1800e- 003	0.0549		215.8950	215.8950	0.0142	 	216.2495		
Total	3.2050	0.3189	5.5306	9.7600e- 003	0.1979	0.5485	0.7463	0.0527	0.5483	0.6010	58.5959	290.1168	348.7128	0.0963	5.0100e- 003	352.6124		

#### 1335 Adobe Drive - Bay Area AQMD Air District, Winter

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.05	3.80	0.10	0.81	0.00	0.19	0.14	0.00	0.19	0.17	0.00	5.25	4.41	0.31	5.47	4.39

#### 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	4/2/2018	4/6/2018	5	5	
2	Grading	Grading	4/9/2018	4/13/2018	5	5	
3	Paving	Paving	4/16/2018	4/20/2018	5	5	
4	Building Construction	Building Construction	4/23/2018	9/7/2018	5	100	
5	Architectural Coating	Architectural Coating	5/7/2018	9/21/2018	5	100	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0.43

Acres of Paving: 0

Residential Indoor: 15,744; Residential Outdoor: 5,248; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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1335 Adobe Drive - Bay Area AQMD Air District, Winter

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Grading	Concrete/Industrial Saws	! 1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	†	8.00	97	0.37

# **Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	1.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	5.00	1.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

# **3.1 Mitigation Measures Construction**

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#### 1335 Adobe Drive - Bay Area AQMD Air District, Winter

3.2 Site Preparation - 2018

<u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.7858	9.7572	4.2514	9.7600e- 003		0.4180	0.4180		0.3846	0.3846		982.7113	982.7113	0.3059	; ! ! !	990.3596
Total	0.7858	9.7572	4.2514	9.7600e- 003	0.0000	0.4180	0.4180	0.0000	0.3846	0.3846		982.7113	982.7113	0.3059		990.3596

# **Unmitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0223	0.0168	0.1592	4.0000e- 004	0.0411	2.8000e- 004	0.0414	0.0109	2.6000e- 004	0.0112		40.2393	40.2393	1.2100e- 003		40.2695
Total	0.0223	0.0168	0.1592	4.0000e- 004	0.0411	2.8000e- 004	0.0414	0.0109	2.6000e- 004	0.0112		40.2393	40.2393	1.2100e- 003		40.2695

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#### 1335 Adobe Drive - Bay Area AQMD Air District, Winter

3.2 Site Preparation - 2018

<u>Mitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.7858	9.7572	4.2514	9.7600e- 003		0.4180	0.4180		0.3846	0.3846	0.0000	982.7113	982.7113	0.3059	;	990.3596
Total	0.7858	9.7572	4.2514	9.7600e- 003	0.0000	0.4180	0.4180	0.0000	0.3846	0.3846	0.0000	982.7113	982.7113	0.3059		990.3596

# **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/d	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	 	0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0223	0.0168	0.1592	4.0000e- 004	0.0411	2.8000e- 004	0.0414	0.0109	2.6000e- 004	0.0112		40.2393	40.2393	1.2100e- 003		40.2695
Total	0.0223	0.0168	0.1592	4.0000e- 004	0.0411	2.8000e- 004	0.0414	0.0109	2.6000e- 004	0.0112		40.2393	40.2393	1.2100e- 003	-	40.2695

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#### 1335 Adobe Drive - Bay Area AQMD Air District, Winter

3.3 Grading - 2018
Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Fugitive Dust					0.8440	0.0000	0.8440	0.4236	0.0000	0.4236			0.0000			0.0000
Off-Road	1.0643	9.4295	7.7762	0.0120	 	0.6228	0.6228		0.5943	0.5943		1,169.350 2	1,169.350 2	0.2254		1,174.985 7
Total	1.0643	9.4295	7.7762	0.0120	0.8440	0.6228	1.4667	0.4236	0.5943	1.0179		1,169.350 2	1,169.350 2	0.2254		1,174.985 7

# **Unmitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	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	0.0446	0.0336	0.3184	8.1000e- 004	0.0822	5.5000e- 004	0.0827	0.0218	5.1000e- 004	0.0223		80.4787	80.4787	2.4100e- 003		80.5390
Total	0.0446	0.0336	0.3184	8.1000e- 004	0.0822	5.5000e- 004	0.0827	0.0218	5.1000e- 004	0.0223		80.4787	80.4787	2.4100e- 003		80.5390

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# 1335 Adobe Drive - Bay Area AQMD Air District, Winter

3.3 Grading - 2018

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Fugitive Dust					0.8440	0.0000	0.8440	0.4236	0.0000	0.4236			0.0000			0.0000
Off-Road	1.0643	9.4295	7.7762	0.0120		0.6228	0.6228		0.5943	0.5943	0.0000	1,169.350 2	1,169.350 2	0.2254	       	1,174.985 7
Total	1.0643	9.4295	7.7762	0.0120	0.8440	0.6228	1.4667	0.4236	0.5943	1.0179	0.0000	1,169.350 2	1,169.350 2	0.2254		1,174.985 7

# **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/d	day							lb/d	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	0.0446	0.0336	0.3184	8.1000e- 004	0.0822	5.5000e- 004	0.0827	0.0218	5.1000e- 004	0.0223		80.4787	80.4787	2.4100e- 003		80.5390
Total	0.0446	0.0336	0.3184	8.1000e- 004	0.0822	5.5000e- 004	0.0827	0.0218	5.1000e- 004	0.0223		80.4787	80.4787	2.4100e- 003		80.5390

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#### 1335 Adobe Drive - Bay Area AQMD Air District, Winter

3.4 Paving - 2018
Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Off-Road	0.9202	8.7447	7.2240	0.0113		0.5109	0.5109		0.4735	0.4735		1,070.137 2	1,070.137 2	0.3017		1,077.679 8
Paving	0.0000		i i			0.0000	0.0000	 	0.0000	0.0000		       	0.0000			0.0000
Total	0.9202	8.7447	7.2240	0.0113		0.5109	0.5109		0.4735	0.4735		1,070.137 2	1,070.137 2	0.3017		1,077.679 8

# **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/d	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	0.0802	0.0605	0.5731	1.4600e- 003	0.1479	1.0000e- 003	0.1489	0.0392	9.2000e- 004	0.0401		144.8616	144.8616	4.3400e- 003		144.9702
Total	0.0802	0.0605	0.5731	1.4600e- 003	0.1479	1.0000e- 003	0.1489	0.0392	9.2000e- 004	0.0401		144.8616	144.8616	4.3400e- 003		144.9702

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# 1335 Adobe Drive - Bay Area AQMD Air District, Winter

3.4 Paving - 2018

<u>Mitigated Construction On-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Off-Road	0.9202	8.7447	7.2240	0.0113		0.5109	0.5109		0.4735	0.4735	0.0000	1,070.137 2	1,070.137 2	0.3017		1,077.679 8
Paving	0.0000		]   		 	0.0000	0.0000		0.0000	0.0000		       	0.0000			0.0000
Total	0.9202	8.7447	7.2240	0.0113		0.5109	0.5109		0.4735	0.4735	0.0000	1,070.137 2	1,070.137 2	0.3017		1,077.679 8

# **Mitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	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	0.0802	0.0605	0.5731	1.4600e- 003	0.1479	1.0000e- 003	0.1489	0.0392	9.2000e- 004	0.0401		144.8616	144.8616	4.3400e- 003		144.9702
Total	0.0802	0.0605	0.5731	1.4600e- 003	0.1479	1.0000e- 003	0.1489	0.0392	9.2000e- 004	0.0401		144.8616	144.8616	4.3400e- 003		144.9702

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#### 1335 Adobe Drive - Bay Area AQMD Air District, Winter

3.5 Building Construction - 2018

<u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
	1.0848	11.0316	7.7512	0.0114		0.7087	0.7087		0.6520	0.6520		1,146.532 3	1,146.532 3	0.3569		1,155.455 5
Total	1.0848	11.0316	7.7512	0.0114		0.7087	0.7087		0.6520	0.6520		1,146.532 3	1,146.532 3	0.3569		1,155.455 5

# **Unmitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	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	5.4100e- 003	0.1340	0.0381	2.7000e- 004	6.7700e- 003	1.0400e- 003	7.8100e- 003	1.9500e- 003	9.9000e- 004	2.9400e- 003		28.8242	28.8242	1.7600e- 003		28.8682
Worker	0.0223	0.0168	0.1592	4.0000e- 004	0.0411	2.8000e- 004	0.0414	0.0109	2.6000e- 004	0.0112		40.2393	40.2393	1.2100e- 003		40.2695
Total	0.0277	0.1508	0.1973	6.7000e- 004	0.0478	1.3200e- 003	0.0492	0.0128	1.2500e- 003	0.0141		69.0635	69.0635	2.9700e- 003		69.1377

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# 1335 Adobe Drive - Bay Area AQMD Air District, Winter

3.5 Building Construction - 2018

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/d	day							lb/c	lay		
	1.0848	11.0316	7.7512	0.0114		0.7087	0.7087	1 1	0.6520	0.6520	0.0000	1,146.532 3	1,146.532 3	0.3569		1,155.455 5
Total	1.0848	11.0316	7.7512	0.0114		0.7087	0.7087		0.6520	0.6520	0.0000	1,146.532 3	1,146.532 3	0.3569		1,155.455 5

# **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/d	day							lb/c	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	5.4100e- 003	0.1340	0.0381	2.7000e- 004	6.7700e- 003	1.0400e- 003	7.8100e- 003	1.9500e- 003	9.9000e- 004	2.9400e- 003		28.8242	28.8242	1.7600e- 003		28.8682
Worker	0.0223	0.0168	0.1592	4.0000e- 004	0.0411	2.8000e- 004	0.0414	0.0109	2.6000e- 004	0.0112		40.2393	40.2393	1.2100e- 003	   	40.2695
Total	0.0277	0.1508	0.1973	6.7000e- 004	0.0478	1.3200e- 003	0.0492	0.0128	1.2500e- 003	0.0141		69.0635	69.0635	2.9700e- 003		69.1377

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#### 1335 Adobe Drive - Bay Area AQMD Air District, Winter

3.6 Architectural Coating - 2018
<u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Archit. Coating	1.0946					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	; ! ! !	282.1171
Total	1.3932	2.0058	1.8542	2.9700e- 003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171

#### **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/d	day							lb/c	lay		
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	4.4600e- 003	3.3600e- 003	0.0318	8.0000e- 005	8.2100e- 003	6.0000e- 005	8.2700e- 003	2.1800e- 003	5.0000e- 005	2.2300e- 003		8.0479	8.0479	2.4000e- 004		8.0539
Total	4.4600e- 003	3.3600e- 003	0.0318	8.0000e- 005	8.2100e- 003	6.0000e- 005	8.2700e- 003	2.1800e- 003	5.0000e- 005	2.2300e- 003		8.0479	8.0479	2.4000e- 004		8.0539

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#### 1335 Adobe Drive - Bay Area AQMD Air District, Winter

3.6 Architectural Coating - 2018 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/d	day							lb/c	lay		
Archit. Coating	1.0946					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e- 003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171
Total	1.3932	2.0058	1.8542	2.9700e- 003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171

# **Mitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	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	4.4600e- 003	3.3600e- 003	0.0318	8.0000e- 005	8.2100e- 003	6.0000e- 005	8.2700e- 003	2.1800e- 003	5.0000e- 005	2.2300e- 003		8.0479	8.0479	2.4000e- 004		8.0539
Total	4.4600e- 003	3.3600e- 003	0.0318	8.0000e- 005	8.2100e- 003	6.0000e- 005	8.2700e- 003	2.1800e- 003	5.0000e- 005	2.2300e- 003		8.0479	8.0479	2.4000e- 004		8.0539

# 4.0 Operational Detail - Mobile

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#### 1335 Adobe Drive - Bay Area AQMD Air District, Winter

# **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/d	day							lb/d	lay		
Mitigated	0.1078	0.2116	1.1310	2.1600e- 003	0.1979	2.3200e- 003	0.2002	0.0527	2.1800e- 003	0.0549		215.8950	215.8950	0.0142		216.2495
Unmitigated	0.1078	0.2116	1.1310	2.1600e- 003	0.1979	2.3200e- 003	0.2002	0.0527	2.1800e- 003	0.0549		215.8950	215.8950	0.0142		216.2495

# **4.2 Trip Summary Information**

	Avei	rage Daily Trip Ra	ite	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	40.67	39.69	33.88	91,368	91,368
Total	40.67	39.69	33.88	91,368	91,368

# 4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
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
Condo/Townhouse	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

#### 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.566452	0.045204	0.186626	0.124693	0.020348	0.004929	0.011681	0.006406	0.001296	0.000623	0.027486	0.000775	0.003482

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# 1335 Adobe Drive - Bay Area AQMD Air District, Winter

# 5.0 Energy Detail

Historical Energy Use: N

# **5.1 Mitigation Measures Energy**

Exceed Title 24

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	lay							lb/c	lay		
NaturalGas Mitigated	4.3300e- 003	0.0370	0.0158	2.4000e- 004		2.9900e- 003	2.9900e- 003		2.9900e- 003	2.9900e- 003		47.2408	47.2408	9.1000e- 004	8.7000e- 004	47.5216
NaturalGas Unmitigated	5.8000e- 003	0.0496	0.0211	3.2000e- 004		4.0100e- 003	4.0100e- 003		4.0100e- 003	4.0100e- 003		63.3178	63.3178	1.2100e- 003	1.1600e- 003	63.6941

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# 1335 Adobe Drive - Bay Area AQMD Air District, Winter

# 5.2 Energy by Land Use - NaturalGas <u>Unmitigated</u>

	NaturalGa s 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/d	day							lb/c	lay		
Condo/Townhous e	538.201	5.8000e- 003	0.0496	0.0211	3.2000e- 004		4.0100e- 003	4.0100e- 003		4.0100e- 003	4.0100e- 003		63.3178	63.3178	1.2100e- 003	1.1600e- 003	63.6941
Total		5.8000e- 003	0.0496	0.0211	3.2000e- 004		4.0100e- 003	4.0100e- 003		4.0100e- 003	4.0100e- 003		63.3178	63.3178	1.2100e- 003	1.1600e- 003	63.6941

#### **Mitigated**

	NaturalGa s 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/d	day							lb/d	day		
Condo/Townhous e	0.401547	4.3300e- 003	0.0370	0.0158	2.4000e- 004		2.9900e- 003	2.9900e- 003		2.9900e- 003	2.9900e- 003		47.2408	47.2408	9.1000e- 004	8.7000e- 004	47.5216
Total		4.3300e- 003	0.0370	0.0158	2.4000e- 004		2.9900e- 003	2.9900e- 003		2.9900e- 003	2.9900e- 003		47.2408	47.2408	9.1000e- 004	8.7000e- 004	47.5216

# 6.0 Area Detail

# **6.1 Mitigation Measures Area**

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# 1335 Adobe Drive - Bay Area AQMD Air District, Winter

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	lay		
Mitigated	3.0930	0.0704	4.3839	7.3600e- 003		0.5431	0.5431		0.5431	0.5431	58.5959	26.9810	85.5770	0.0812	4.1400e- 003	88.8414
Unmitigated	3.0930	0.0704	4.3839	7.3600e- 003		0.5431	0.5431		0.5431	0.5431	58.5959	26.9810	85.5770	0.0812	4.1400e- 003	88.8414

# 6.2 Area by SubCategory

# **Unmitigated**

	ROG	NOx	СО	SO2	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/d	day							lb/d	day		
Architectural Coating	0.0300					0.0000	0.0000		0.0000	0.0000			0.0000	 		0.0000
Consumer Products	0.1664					0.0000	0.0000		0.0000	0.0000			0.0000		i i	0.0000
Hearth	2.8788	0.0636	3.8035	7.3300e- 003		0.5400	0.5400		0.5400	0.5400	58.5959	25.9412	84.5371	0.0802	4.1400e- 003	87.7760
Landscaping	0.0178	6.7200e- 003	0.5804	3.0000e- 005		3.1800e- 003	3.1800e- 003		3.1800e- 003	3.1800e- 003		1.0399	1.0399	1.0200e- 003		1.0654
Total	3.0930	0.0704	4.3839	7.3600e- 003		0.5431	0.5431		0.5431	0.5431	58.5959	26.9811	85.5770	0.0812	4.1400e- 003	88.8414

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#### 1335 Adobe Drive - Bay Area AQMD Air District, Winter

# 6.2 Area by SubCategory

#### **Mitigated**

	ROG	NOx	СО	SO2	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/d	day							lb/d	day		
Architectural Coating	0.0300					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1664		   			0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.8788	0.0636	3.8035	7.3300e- 003		0.5400	0.5400		0.5400	0.5400	58.5959	25.9412	84.5371	0.0802	4.1400e- 003	87.7760
Landscaping	0.0178	6.7200e- 003	0.5804	3.0000e- 005		3.1800e- 003	3.1800e- 003	! ! !	3.1800e- 003	3.1800e- 003		1.0399	1.0399	1.0200e- 003		1.0654
Total	3.0930	0.0704	4.3839	7.3600e- 003		0.5431	0.5431		0.5431	0.5431	58.5959	26.9811	85.5770	0.0812	4.1400e- 003	88.8414

#### 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
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# 10.0 Stationary Equipment

# 1335 Adobe Drive - Bay Area AQMD Air District, Winter

# **Fire Pumps and Emergency Generators**

|--|

#### **Boilers**

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

#### **User Defined Equipment**

Equipment Type	Number
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# 11.0 Vegetation

# 1335 Adobe Drive

#### **Bay Area AQMD Air District, Mitigation Report**

# **Construction Mitigation Summary**

Phase	ROG	NOx	СО	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
Building Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**OFFROAD Equipment Mitigation** 

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Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	1	No Change	0.00
Cement and Mortar Mixers	Diesel	No Change	0	4	No Change	0.00
Concrete/Industrial Saws	Diesel	No Change	0	1	No Change	0.00
Cranes	Diesel	No Change	0	1	No Change	0.00
Forklifts	Diesel	No Change	0	2	No Change	0.00
Graders	Diesel	No Change	0	1	No Change	0.00
Pavers	Diesel	No Change	0	1	No Change	0.00
Rollers	Diesel	No Change	0	1	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	1	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	6	No Change	0.00

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Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
		Uı	nmitigated tons/yr						Unmitiga	ted mt/yr		
Air Compressors	1.49300E-002	1.00290E-001	9.27100E-002	1.50000E-004	7.53000E-003	7.53000E-003	0.00000E+000	1.27663E+001	1.27663E+001	1.21000E-003	0.00000E+000	1.27966E+001
Cement and Mortar Mixers	4.40000E-004	2.76000E-003	2.31000E-003	1.00000E-005	1.10000E-004	1.10000E-004	0.00000E+000	3.43710E-001	3.43710E-001	4.00000E-005	0.00000E+000	3.44600E-001
Concrete/Industria I Saws	1.30000E-003	9.79000E-003	9.31000E-003	2.00000E-005	6.70000E-004	6.70000E-004	0.00000E+000	1.34414E+000	1.34414E+000	1.00000E-004	0.00000E+000	1.34674E+000
Cranes	1.42700E-002	1.70520E-001	6.30500E-002	1.40000E-004	7.38000E-003	6.79000E-003	0.00000E+000	1.31677E+001	1.31677E+001	4.10000E-003	0.00000E+000	1.32702E+001
Forklifts	1.33600E-002	1.18090E-001	9.08400E-002	1.10000E-004	9.42000E-003	8.67000E-003	0.00000E+000	1.04635E+001	1.04635E+001	3.26000E-003	0.00000E+000	1.05450E+001
Graders	1.30000E-003	1.78200E-002	4.79000E-003	2.00000E-005	5.80000E-004	5.30000E-004	0.00000E+000	1.51939E+000	1.51939E+000	4.70000E-004	0.00000E+000	1.53121E+000
Pavers	7.10000E-004	7.89000E-003	6.40000E-003	1.00000E-005	3.90000E-004	3.50000E-004	0.00000E+000	9.38920E-001	9.38920E-001	2.90000E-004	0.00000E+000	9.46220E-001
Rollers	5.60000E-004	5.45000E-003	4.23000E-003	1.00000E-005	3.80000E-004	3.50000E-004	0.00000E+000	5.23710E-001	5.23710E-001	1.60000E-004	0.00000E+000	5.27790E-001
Rubber Tired Dozers	3.60000E-004	3.92000E-003	1.37000E-003	0.00000E+000	1.90000E-004	1.80000E-004	0.00000E+000	2.43860E-001	2.43860E-001	8.00000E-005	0.00000E+000	2.45750E-001
Tractors/Loaders/ Backhoes	2.88600E-002	2.85160E-001	2.53390E-001	3.40000E-004	2.02000E-002	1.85900E-002	0.00000E+000	3.07687E+001	3.07687E+001	9.58000E-003	0.00000E+000	3.10081E+001

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Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
		М	itigated tons/yr				Mitigated mt/yr						
Air Compressors	1.49300E-002	1.00290E-001	9.27100E-002	1.50000E-004	7.53000E-003	7.53000E-003	0.00000E+000	1.27663E+001	1.27663E+001	1.21000E-003	0.00000E+000	1.27966E+001	
Cement and Mortar Mixers	4.40000E-004	2.76000E-003	2.31000E-003	1.00000E-005	1.10000E-004	1.10000E-004	0.00000E+000	3.43710E-001	3.43710E-001	4.00000E-005	0.00000E+000	3.44600E-001	
Concrete/Industrial Saws	1.30000E-003	9.79000E-003	9.31000E-003	2.00000E-005	6.70000E-004	6.70000E-004	0.00000E+000	1.34414E+000	1.34414E+000	1.00000E-004	0.00000E+000	1.34674E+000	
Cranes	1.42700E-002	1.70520E-001	6.30500E-002	1.40000E-004	7.38000E-003	6.79000E-003	0.00000E+000	1.31677E+001	1.31677E+001	4.10000E-003	0.00000E+000	1.32702E+001	
Forklifts	1.33600E-002	1.18090E-001	9.08400E-002	1.10000E-004	9.42000E-003	8.67000E-003	0.00000E+000	1.04635E+001	1.04635E+001	3.26000E-003	0.00000E+000	1.05450E+001	
Graders	1.30000E-003	1.78200E-002	4.79000E-003	2.00000E-005	5.80000E-004	5.30000E-004	0.00000E+000	1.51939E+000	1.51939E+000	4.70000E-004	0.00000E+000	1.53121E+000	
Pavers	7.10000E-004	7.89000E-003	6.40000E-003	1.00000E-005	3.90000E-004	3.50000E-004	0.00000E+000	9.38920E-001	9.38920E-001	2.90000E-004	0.00000E+000	9.46220E-001	
Rollers	5.60000E-004	5.45000E-003	4.23000E-003	1.00000E-005	3.80000E-004	3.50000E-004	0.00000E+000	5.23710E-001	5.23710E-001	1.60000E-004	0.00000E+000	5.27790E-001	
Rubber Tired Dozers	3.60000E-004	3.92000E-003	1.37000E-003	0.00000E+000	1.90000E-004	1.80000E-004	0.00000E+000	2.43850E-001	2.43850E-001	8.00000E-005	0.00000E+000	2.45750E-001	
Tractors/Loaders/Ba ckhoes	2.88600E-002	2.85160E-001	2.53390E-001	3.40000E-004	2.02000E-002	1.85900E-002	0.00000E+000	3.07686E+001	3.07686E+001	9.58000E-003	0.00000E+000	3.10081E+001	

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Equipment Type	ROG	NOx	СО	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
					Pe	rcent Reduction						
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	7.83313E-007	7.83313E-007	0.00000E+000	0.00000E+000	1.56291E-006
Cement and Mortar Mixers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Concrete/Industrial Saws	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.51886E-006	1.51886E-006	0.00000E+000	0.00000E+000	7.53567E-007
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	9.55700E-007	9.55700E-007	0.00000E+000	0.00000E+000	1.89664E-006
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	4.10071E-005	4.10071E-005	0.00000E+000	0.00000E+000	0.00000E+000
Tractors/Loaders/Ba ckhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.30002E-006	1.30002E-006	0.00000E+000	0.00000E+000	1.28998E-006

# **Fugitive Dust Mitigation**

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input	Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction		PM2.5 Reduction		
No	Replace Ground Cover of Area Disturbed	PM10 Reduction		PM2.5 Reduction		
No	Water Exposed Area	PM10 Reduction		PM2.5 Reduction	Frequency (per day)	
No	Unpaved Road Mitigation	Moisture Content %		Vehicle Speed (mph)		
No	Clean Paved Road	% PM Reduction	0.00			

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		Unm	itigated	Mi	tigated	Percent I	Reduction
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Grading	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Grading	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

**Operational Percent Reduction Summary** 

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Category	ROG	NOx	СО	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	1.21	1.21	0.00	0.00	1.21
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	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	25.47	25.41	25.45	33.33	24.66	24.66	0.00	25.39	25.39	25.00	26.32	25.39
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

# **Operational Mobile Mitigation**

# Project Setting:

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	0.13		<b>,</b>
No	Land Use	Improve Walkability Design	0.00	i   		<del>;</del>
No	Land Use	Improve Destination Accessibility	0.00	i   		<del>;</del>
No	Land Use	Increase Transit Accessibility	0.25	i   		<del>;</del>
No	Land Use	Integrate Below Market Rate Housing	0.00	i   		<del>;</del>
	Land Use	Land Use SubTotal	0.00	9		<b>,</b>

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		<b>g</b>		Date. 1/4/2017	4.21 F IVI	
No	Neighborhood Enhancements	Improve Pedestrian Network	1			
No	: Neighborhood Enhancements	Provide Traffic Calming Measures	; *			
No	:Neighborhood Enhancements	:Implement NEV Network	0.00			
	:Neighborhood Enhancements		0.00			
No	Parking Policy Pricing	-t	0.00	<del>-</del>		
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		<del>-</del>	
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
	<del></del>	Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program			<del>-</del>	
No	Commute	Transit Subsidy			<del>-</del>	
No	Commute	Implement Employee Parking "Cash Out"			<del>-</del>	
No	Commute	Workplace Parking Charge			<del>-</del>	
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	;	<u> </u>	<del>-</del>	
	Commute	Commute Subtotal	0.00		<del>-</del>	

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No	School Trip	Implement School Bus Program	0.00		
	1	Total VMT Reduction	0.00	 	1

# **Area Mitigation**

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	1
No	No Hearth	!
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	100.00
No	Use Low VOC Paint (Residential Exterior)	150.00
No	Use Low VOC Paint (Non-residential Interior)	100.00
No	Use Low VOC Paint (Non-residential Exterior)	150.00
No	Use Low VOC Paint (Parking)	150.00
No	% Electric Lawnmower	
No	% Electric Leafblower	!
No	% Electric Chainsaw	! !

# **Energy Mitigation Measures**

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Exceed Title 24	28.00	
No	Install High Efficiency Lighting		
No	On-site Renewable		

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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
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Institute Recycling and Composting Services Percent Reduction in Waste Disposed		

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1335 Adobe Drive - Bay Area AQMD Air District, Summary Report

# 1335 Adobe Drive Bay Area AQMD, Summary Report

## 1.0 Project Characteristics

#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	7.00	Dwelling Unit	0.43	7,775.00	20

(lb/MWhr)

#### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	64
Climate Zone	5			Operational Year	2019
Utility Company	Pacific Gas & Electric Con	mpany			
CO2 Intensity	409.81	CH4 Intensity	0.029	N2O Intensity	0.006

#### 1.3 User Entered Comments

Only CalEEMod defaults were used.

Project Characteristics - Intensity Factors for CO2 adjusted based on PG&E RPS reductions.

(lb/MWhr)

Land Use - \*Applicant provided

Construction Phase - \*Applicant provided

Grading - \*applicant provided

Energy Use -

(lb/MWhr)

Energy Mitigation -

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#### 1335 Adobe Drive - Bay Area AQMD Air District, Summary Report

## 2.0 Peak Daily Emissions

# Peak Daily Construction Emissions Peak Daily Construction Emissions

		Unmitigated							Mitigated					
		ROG	NOX	СО	SO2	PM10	PM2.5	ROG	NOX	СО	SO2	PM10	PM2.5	
Year	Phase		•	<u>'</u>		•	lb	o/day	-					
2018	Site Preparation	0.8081 W	9.7741 W	4.4189 S	0.0102 S	0.4594 S	0.3957 S	0.8081 W	9.7741 W	4.4189 S	0.0102 S	0.4594 S	0.3957 S	
2018	Grading	1.1088 W	9.4632 W	8.1113 S	0.0129 S	1.5494 S	1.0402 S	1.1088 W	9.4632 W	8.1113 S	0.0129 S	1.5494 S	1.0402 S	
2018	Paving	1.0004 W	8.8053 W	7.8271 S	0.0128 S	0.6598 S	0.5136 S	1.0004 W	8.8053 W	7.8271 S	0.0128 S	0.6598 S	0.5136 S	
2018	Building Construction	1.1125 W	11.1824 W	7.9522 S	0.0121 S	0.7579 W	0.6661 W	1.1125 W	11.1824 W	7.9522 S	0.0121 S	0.7579 W	0.6661 W	
2018	Architectural Coating	1.3977 W	2.0091 W	1.8877 S	3.0600e-003 S	0.1588 S	0.1528 S	1.3977 W	2.0091 W	1.8877 S	3.0600e-003 S	0.1588 S	0.1528 S	
	Peak Daily Total	1.3977 W	11.1824 W	8.1113 S	0.0129 S	1.5494 S	1.0402 S	1.3977 W	11.1824 W	8.1113 S	0.0129 S	1.5494 S	1.0402 S	
	Air District Threshold	1											1	
	Exceed Significance?												1	

Peak Daily Operational Emissions
Peak Daily Operational Emissions

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			Unmitigated						Mitigated				
		ROG	NOX	CO	SO2	PM10	PM2.5	ROG	NOX	СО	SO2	PM10	PM2.5
	Operational Activity						lb/d	day					
On-Site	Area	3.0930 S	0.0704 S	4.3839 S	7.3600e-003 S	0.5431 S	0.5431 S	3.0930 S	0.0704 S	4.3839 S	7.3600e-003 S	0.5431 S	0.5431 S
On-Site	Energy	5.8000e-003 S	0.0496 S	0.0211 S	3.2000e-004 S	4.0100e-003 S	4.0100e-003 S	4.3300e-003 S	0.0370 S	0.0158 S	2.4000e-004 S	2.9900e-003 S	2.9900e-003 S
Off-Site	Mobile	0.1203 S	0.2116 W	1.1310 W	2.3200e-003 S	0.2002 W	0.0549 W	0.1203 S	0.2116 W	1.1310 W	2.3200e-003 S	0.2002 W	0.0549 W
	Peak Daily Total	3.2191 S	0.3315 W	5.5359 W	0.0100 S	0.7473 W	0.6021 W	3.2176 S	0.3189 W	5.5306 W	9.9200e-003 S	0.7463 W	0.6010 W
	Air District Threshold												
	Exceed Significance?												

## 3.0 Annual GHG Emissions

#### **Annual GHG**

## **Annual GHG**

			Unmi	tigated		Mitigated					
		CO2	CH4	N2O	CO2e	CO2	CH4	N2O	CO2e		
GHG Activity	Year				M	T/yr					
Construction	ction 2018		76.2250 0.0195 0.0000		76.7113	76.2249 0.0195		0.0000	76.7112		
Operational	2019	54.3520	0.0570	6.7132e-004	55.9776	51.6058	0.0570	6.2596e-004	53.2167		
	Total										
	Significance Threshold										
	Exceed Significance?										

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#### 1.0 Project Characteristics

#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	7.00	Dwelling Unit	0.43	7,775.00	20

## 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	64
Climate Zone	5			Operational Year	2020
Utility Company	Pacific Gas & Elec	tric Company			
CO2 Intensity	404.79	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (Ib/MWhr)	0.006

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - Intensity Factors for CO2 adjusted based on PG&E RPS reductions.

Land Use - \*Applicant provided

Construction Phase - \*Applicant provided

Grading - \*applicant provided

Energy Use -

Energy Mitigation -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

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Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	4/6/2018	4/1/2050
tblConstructionPhase	PhaseStartDate	4/2/2018	4/2/2050
tblLandUse	BuildingSpaceSquareFeet	7,000.00	7,775.00
tblLandUse	LandUseSquareFeet	7,000.00	7,775.00
tblLandUse	LotAcreage	0.44	0.43
tblProjectCharacteristics	CO2IntensityFactor	641.35	404.79
tblProjectCharacteristics	OperationalYear	2018	2020

# 2.0 Emissions Summary

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# 2.1 Overall Construction <a href="Unmitigated Construction">Unmitigated Construction</a>

	ROG	NOx	СО	SO2	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					ton	s/yr							MT	/yr		
2050	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

## **Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					ton	s/yr							MT	/yr		
2050	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

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

## 2.2 Overall Operational

## **Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e		
Category		tons/yr										MT/yr						
Area	0.0536	9.7000e- 004	0.0744	5.0000e- 005		3.4700e- 003	3.4700e- 003		3.4700e- 003	3.4700e- 003	0.3191	0.2160	0.5351	6.0000e- 004	2.0000e- 005	0.5562		
Energy	1.0600e- 003	9.0500e- 003	3.8500e- 003	6.0000e- 005		7.3000e- 004	7.3000e- 004		7.3000e- 004	7.3000e- 004	0.0000	17.3493	17.3493	6.9000e- 004	2.9000e- 004	17.4542		
Mobile	0.0115	0.0551	0.1298	4.2000e- 004	0.0340	4.6000e- 004	0.0345	9.1300e- 003	4.4000e- 004	9.5700e- 003	0.0000	38.1309	38.1309	1.5100e- 003	0.0000	38.1685		
Waste	 	,				0.0000	0.0000		0.0000	0.0000	0.6536	0.0000	0.6536	0.0386	0.0000	1.6193		
Water	,,	,			<del></del>	0.0000	0.0000		0.0000	0.0000	0.1447	0.6379	0.7826	0.0149	3.6000e- 004	1.2627		
Total	0.0662	0.0652	0.2081	5.3000e- 004	0.0340	4.6600e- 003	0.0387	9.1300e- 003	4.6400e- 003	0.0138	1.1175	56.3340	57.4515	0.0563	6.7000e- 004	59.0609		

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## 2.2 Overall Operational

#### **Mitigated Operational**

	ROG	NOx	СО	SO2	Fugitive 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	0.0536	9.7000e- 004	0.0744	5.0000e- 005		3.4700e- 003	3.4700e- 003		3.4700e- 003	3.4700e- 003	0.3191	0.2160	0.5351	6.0000e- 004	2.0000e- 005	0.5562			
Energy	7.9000e- 004	6.7500e- 003	2.8700e- 003	4.0000e- 005		5.5000e- 004	5.5000e- 004		5.5000e- 004	5.5000e- 004	0.0000	14.6042	14.6042	6.4000e- 004	2.4000e- 004	14.6928			
Mobile	0.0115	0.0551	0.1298	4.2000e- 004	0.0340	4.6000e- 004	0.0345	9.1300e- 003	4.4000e- 004	9.5700e- 003	0.0000	38.1309	38.1309	1.5100e- 003	0.0000	38.1685			
Waste		, ! ! !	,       			0.0000	0.0000		0.0000	0.0000	0.6536	0.0000	0.6536	0.0386	0.0000	1.6193			
Water		,	1         			0.0000	0.0000		0.0000	0.0000	0.1447	0.6379	0.7826	0.0149	3.6000e- 004	1.2627			
Total	0.0659	0.0629	0.2071	5.1000e- 004	0.0340	4.4800e- 003	0.0385	9.1300e- 003	4.4600e- 003	0.0136	1.1175	53.5889	54.7064	0.0563	6.2000e- 004	56.2995			

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.41	3.53	0.47	3.77	0.00	3.86	0.47	0.00	3.88	1.31	0.00	4.87	4.78	0.09	7.46	4.68

#### 3.0 Construction Detail

#### **Construction Phase**

Phase Numbe	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/2/2050	4/1/2050	5	0	

Acres of Grading (Site Preparation Phase): 0

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Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### **OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

## **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	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

## 3.1 Mitigation Measures Construction

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3.2 Site Preparation - 2050

<u>Unmitigated Construction On-Site</u>

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

#### **Unmitigated Construction Off-Site**

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

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3.2 Site Preparation - 2050 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					ton	s/yr							MT	/yr		
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

## **Mitigated Construction Off-Site**

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

## 4.0 Operational Detail - Mobile

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## **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					ton	s/yr							MT	/yr		
Mitigated	0.0115	0.0551	0.1298	4.2000e- 004	0.0340	4.6000e- 004	0.0345	9.1300e- 003	4.4000e- 004	9.5700e- 003	0.0000	38.1309	38.1309	1.5100e- 003	0.0000	38.1685
Unmitigated	0.0115	0.0551	0.1298	4.2000e- 004	0.0340	4.6000e- 004	0.0345	9.1300e- 003	4.4000e- 004	9.5700e- 003	0.0000	38.1309	38.1309	1.5100e- 003	0.0000	38.1685

## **4.2 Trip Summary Information**

	Avei	rage Daily Trip Ra	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	40.67	39.69	33.88	91,368	91,368
Total	40.67	39.69	33.88	91,368	91,368

## 4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
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
Condo/Townhouse	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

#### 4.4 Fleet Mix

Land Use	L	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.8	573139	0.040894	0.193976	0.114604	0.017740	0.005371	0.017133	0.024527	0.002545	0.002442	0.005942	0.000877	0.000812

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## 5.0 Energy Detail

Historical Energy Use: N

## **5.1 Mitigation Measures Energy**

Exceed Title 24

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6.7829	6.7829	4.9000e- 004	1.0000e- 004	6.8251
Electricity Unmitigated	61 81 81 81	     	1			0.0000	0.0000		0.0000	0.0000	0.0000	6.8663	6.8663	4.9000e- 004	1.0000e- 004	6.9089
	7.9000e- 004	6.7500e- 003	2.8700e- 003	4.0000e- 005		5.5000e- 004	5.5000e- 004		5.5000e- 004	5.5000e- 004	0.0000	7.8213	7.8213	1.5000e- 004	1.4000e- 004	7.8677
Unmitigated	1.0600e- 003	9.0500e- 003	3.8500e- 003	6.0000e- 005		7.3000e- 004	7.3000e- 004		7.3000e- 004	7.3000e- 004	0.0000	10.4830	10.4830	2.0000e- 004	1.9000e- 004	10.5453

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# 5.2 Energy by Land Use - NaturalGas <u>Unmitigated</u>

	NaturalGa s 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					ton	s/yr							MT	/yr		
Condo/Townhous e	196443	1.0600e- 003	9.0500e- 003	3.8500e- 003	6.0000e- 005		7.3000e- 004	7.3000e- 004	1 1	7.3000e- 004	7.3000e- 004	0.0000	10.4830	10.4830	2.0000e- 004	1.9000e- 004	10.5453
Total		1.0600e- 003	9.0500e- 003	3.8500e- 003	6.0000e- 005		7.3000e- 004	7.3000e- 004		7.3000e- 004	7.3000e- 004	0.0000	10.4830	10.4830	2.0000e- 004	1.9000e- 004	10.5453

## **Mitigated**

	NaturalGa s 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					ton	s/yr							MT	/yr		
Condo/Townhous e	146565	7.9000e- 004	6.7500e- 003	2.8700e- 003	4.0000e- 005		5.5000e- 004	5.5000e- 004	1 1 1	5.5000e- 004	5.5000e- 004	0.0000	7.8213	7.8213	1.5000e- 004	1.4000e- 004	7.8677
Total		7.9000e- 004	6.7500e- 003	2.8700e- 003	4.0000e- 005		5.5000e- 004	5.5000e- 004		5.5000e- 004	5.5000e- 004	0.0000	7.8213	7.8213	1.5000e- 004	1.4000e- 004	7.8677

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5.3 Energy by Land Use - Electricity Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		MT	-/yr	
Condo/Townhous e	37396.2	6.8663	4.9000e- 004	1.0000e- 004	6.9089
Total		6.8663	4.9000e- 004	1.0000e- 004	6.9089

## **Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		MT	-/yr	
Condo/Townhous e	36942.2	6.7829	4.9000e- 004	1.0000e- 004	6.8251
Total		6.7829	4.9000e- 004	1.0000e- 004	6.8251

#### 6.0 Area Detail

## **6.1 Mitigation Measures Area**

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	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	-/yr		
Mitigated	0.0536	9.7000e- 004	0.0744	5.0000e- 005		3.4700e- 003	3.4700e- 003		3.4700e- 003	3.4700e- 003	0.3191	0.2160	0.5351	6.0000e- 004	2.0000e- 005	0.5562
Unmitigated	0.0536	9.7000e- 004	0.0744	5.0000e- 005		3.4700e- 003	3.4700e- 003		3.4700e- 003	3.4700e- 003	0.3191	0.2160	0.5351	6.0000e- 004	2.0000e- 005	0.5562

# 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					ton	s/yr							МТ	/yr		
Coating	5.4700e- 003					0.0000	0.0000	 	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0304					0.0000	0.0000	1   	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0162	3.7000e- 004	0.0222	4.0000e- 005		3.1800e- 003	3.1800e- 003	1 1 1 1 1	3.1800e- 003	3.1800e- 003	0.3191	0.1311	0.4502	5.1000e- 004	2.0000e- 005	0.4693
Landscaping	1.5900e- 003	6.0000e- 004	0.0522	0.0000		2.9000e- 004	2.9000e- 004	1 1 1 1 1	2.9000e- 004	2.9000e- 004	0.0000	0.0849	0.0849	8.0000e- 005	0.0000	0.0870
Total	0.0536	9.7000e- 004	0.0744	4.0000e- 005		3.4700e- 003	3.4700e- 003		3.4700e- 003	3.4700e- 003	0.3191	0.2160	0.5351	5.9000e- 004	2.0000e- 005	0.5562

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# 6.2 Area by SubCategory Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					ton	s/yr					MT/yr					
Architectural Coating	5.4700e- 003		! !			0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0304					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0162	3.7000e- 004	0.0222	4.0000e- 005		3.1800e- 003	3.1800e- 003		3.1800e- 003	3.1800e- 003	0.3191	0.1311	0.4502	5.1000e- 004	2.0000e- 005	0.4693
Landscaping	1.5900e- 003	6.0000e- 004	0.0522	0.0000		2.9000e- 004	2.9000e- 004	     	2.9000e- 004	2.9000e- 004	0.0000	0.0849	0.0849	8.0000e- 005	0.0000	0.0870
Total	0.0536	9.7000e- 004	0.0744	4.0000e- 005		3.4700e- 003	3.4700e- 003		3.4700e- 003	3.4700e- 003	0.3191	0.2160	0.5351	5.9000e- 004	2.0000e- 005	0.5562

## 7.0 Water Detail

## 7.1 Mitigation Measures Water

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	Total CO2	CH4	N2O	CO2e
Category		МТ	/yr	
Willigatou	0.7826	0.0149	3.6000e- 004	1.2627
Unmitigated	0.7826	0.0149	3.6000e- 004	1.2627

# 7.2 Water by Land Use <u>Unmitigated</u>

#### Indoor/Out door Use Total CO2 CH4 N2O CO2e MT/yr Land Use Mgal Condo/Townhous 0.456078 / e 0.287528 0.7826 0.0149 3.6000e-1.2627 004 0.0149 3.6000e-Total 0.7826 1.2627 004

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# 7.2 Water by Land Use

## **Mitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		МТ	√yr	
Condo/Townhous e	0.456078 / 0.287528		0.0149	3.6000e- 004	1.2627
Total		0.7826	0.0149	3.6000e- 004	1.2627

#### 8.0 Waste Detail

## 8.1 Mitigation Measures Waste

## Category/Year

	Total CO2	CH4	N2O	CO2e
		MT	/yr	
gatea	0.6536	0.0386	0.0000	1.6193
Unmitigated	0.6536	0.0386	0.0000	1.6193

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8.2 Waste by Land Use <u>Unmitigated</u>

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		МТ	-/yr	
Condo/Townhous e	3.22	0.6536	0.0386	0.0000	1.6193
Total		0.6536	0.0386	0.0000	1.6193

## **Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		МТ	-/yr	
Condo/Townhous e	3.22	0.6536	0.0386	0.0000	1.6193
Total		0.6536	0.0386	0.0000	1.6193

# 9.0 Operational Offroad

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

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# 10.0 Stationary Equipment

## **Fire Pumps and Emergency Generators**

Equipment Type Number Hours/Day Hours/Year Horse Power Load Factor Fuel Type	Equipment Type Nu	umber Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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#### **Boilers**

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

#### **User Defined Equipment**

Equipment Type	Number

# 11.0 Vegetation

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## 1.0 Project Characteristics

#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	7.00	Dwelling Unit	0.43	7,775.00	20

#### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	64
Climate Zone	5			Operational Year	2050
Utility Company	Pacific Gas & Ele	ectric Company			
CO2 Intensity (lb/MWhr)	302.08	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - Intensity Factors for CO2 adjusted based on PG&E RPS reductions.

Land Use - \*Applicant provided

Construction Phase - \*Applicant provided

Grading - \*applicant provided

Energy Use -

Energy Mitigation -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

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Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	4/6/2018	4/1/2050
tblConstructionPhase	PhaseStartDate	4/2/2018	4/2/2050
tblLandUse	BuildingSpaceSquareFeet	7,000.00	7,775.00
tblLandUse	LandUseSquareFeet	7,000.00	7,775.00
tblLandUse	LotAcreage	0.44	0.43
tblProjectCharacteristics	CO2IntensityFactor	641.35	302.08
tblProjectCharacteristics	OperationalYear	2018	2050

# 2.0 Emissions Summary

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# 2.1 Overall Construction <a href="Unmitigated Construction">Unmitigated Construction</a>

	ROG	NOx	CO	SO2	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					ton	s/yr							MT	/yr		
2050	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

## **Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					ton	s/yr							MT	/yr		
2050	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

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

## 2.2 Overall Operational

## **Unmitigated Operational**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	MT/yr										
Area	0.0535	9.7000e- 004	0.0740	5.0000e- 005		3.4700e- 003	3.4700e- 003	 	3.4700e- 003	3.4700e- 003	0.3191	0.2160	0.5351	5.9000e- 004	2.0000e- 005	0.5562
Energy	1.0600e- 003	9.0500e- 003	3.8500e- 003	6.0000e- 005		7.3000e- 004	7.3000e- 004	       	7.3000e- 004	7.3000e- 004	0.0000	15.6070	15.6070	6.9000e- 004	2.9000e- 004	15.7120
Mobile	4.1600e- 003	0.0315	0.0498	2.9000e- 004	0.0340	1.1000e- 004	0.0341	9.1200e- 003	1.0000e- 004	9.2200e- 003	0.0000	27.3197	27.3197	8.0000e- 004	0.0000	27.3398
Waste	r, 		1 1 1 1			0.0000	0.0000	1   	0.0000	0.0000	0.6536	0.0000	0.6536	0.0386	0.0000	1.6193
Water	r,		1 1 1 1			0.0000	0.0000	1       	0.0000	0.0000	0.1447	0.4760	0.6207	0.0149	3.6000e- 004	1.1008
Total	0.0588	0.0415	0.1276	4.0000e- 004	0.0340	4.3100e- 003	0.0383	9.1200e- 003	4.3000e- 003	0.0134	1.1175	43.6188	44.7362	0.0556	6.7000e- 004	46.3281

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## 2.2 Overall Operational

#### **Mitigated Operational**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	MT/yr										
Area	0.0535	9.7000e- 004	0.0740	5.0000e- 005		3.4700e- 003	3.4700e- 003		3.4700e- 003	3.4700e- 003	0.3191	0.2160	0.5351	5.9000e- 004	2.0000e- 005	0.5562
Energy	7.9000e- 004	6.7500e- 003	2.8700e- 003	4.0000e- 005		5.5000e- 004	5.5000e- 004		5.5000e- 004	5.5000e- 004	0.0000	12.8831	12.8831	6.4000e- 004	2.4000e- 004	12.9717
Mobile	4.1600e- 003	0.0315	0.0498	2.9000e- 004	0.0340	1.1000e- 004	0.0341	9.1200e- 003	1.0000e- 004	9.2200e- 003	0.0000	27.3197	27.3197	8.0000e- 004	0.0000	27.3398
Waste						0.0000	0.0000		0.0000	0.0000	0.6536	0.0000	0.6536	0.0386	0.0000	1.6193
Water	,,					0.0000	0.0000		0.0000	0.0000	0.1447	0.4760	0.6207	0.0149	3.6000e- 004	1.1008
Total	0.0585	0.0392	0.1266	3.8000e- 004	0.0340	4.1300e- 003	0.0381	9.1200e- 003	4.1200e- 003	0.0132	1.1175	40.8949	42.0123	0.0556	6.2000e- 004	43.5878

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.46	5.54	0.77	5.00	0.00	4.18	0.47	0.00	4.19	1.34	0.00	6.24	6.09	0.09	7.46	5.91

#### 3.0 Construction Detail

#### **Construction Phase**

Phase Numbe	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/2/2050	4/1/2050	5	0	

Acres of Grading (Site Preparation Phase): 0

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Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### **OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

## **Trips and VMT**

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
	Count	Number	Number	Number	Length	Length	Length	Class	Vehicle Class	Vehicle Class
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

## 3.1 Mitigation Measures Construction

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3.2 Site Preparation - 2050

<u>Unmitigated Construction On-Site</u>

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

#### **Unmitigated Construction Off-Site**

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

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3.2 Site Preparation - 2050 Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

## **Mitigated Construction Off-Site**

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

## 4.0 Operational Detail - Mobile

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## **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					ton	s/yr				MT	/yr					
1 3	4.1600e- 003	0.0315	0.0498	2.9000e- 004	0.0340	1.1000e- 004	0.0341	9.1200e- 003	1.0000e- 004	9.2200e- 003	0.0000	27.3197	27.3197	8.0000e- 004	0.0000	27.3398
1	4.1600e- 003	0.0315	0.0498	2.9000e- 004	0.0340	1.1000e- 004	0.0341	9.1200e- 003	1.0000e- 004	9.2200e- 003	0.0000	27.3197	27.3197	8.0000e- 004	0.0000	27.3398

## **4.2 Trip Summary Information**

	Avei	rage Daily Trip Ra	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	40.67	39.69	33.88	91,368	91,368
Total	40.67	39.69	33.88	91,368	91,368

## 4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
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
Condo/Townhouse	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

#### 4.4 Fleet Mix

Land	Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/To	wnhouse	0.585089	0.035506	0.191350	0.104898	0.011211	0.005274	0.021718	0.033377	0.002912	0.001575	0.005503	0.000923	0.000663

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# 5.0 Energy Detail

Historical Energy Use: N

## **5.1 Mitigation Measures Energy**

Exceed Title 24

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	5.0619	5.0619	4.9000e- 004	1.0000e- 004	5.1040
Electricity Unmitigated	61 81 81 81	       	1			0.0000	0.0000		0.0000	0.0000	0.0000	5.1241	5.1241	4.9000e- 004	1.0000e- 004	5.1667
	7.9000e- 004	6.7500e- 003	2.8700e- 003	4.0000e- 005		5.5000e- 004	5.5000e- 004		5.5000e- 004	5.5000e- 004	0.0000	7.8213	7.8213	1.5000e- 004	1.4000e- 004	7.8677
Unmitigated	1.0600e- 003	9.0500e- 003	3.8500e- 003	6.0000e- 005		7.3000e- 004	7.3000e- 004		7.3000e- 004	7.3000e- 004	0.0000	10.4830	10.4830	2.0000e- 004	1.9000e- 004	10.5453

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# 5.2 Energy by Land Use - NaturalGas <u>Unmitigated</u>

	NaturalGa s 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					ton	s/yr							MT	/yr		
Condo/Townhous e	196443	1.0600e- 003	9.0500e- 003	3.8500e- 003	6.0000e- 005		7.3000e- 004	7.3000e- 004		7.3000e- 004	7.3000e- 004	0.0000	10.4830	10.4830	2.0000e- 004	1.9000e- 004	10.5453
Total		1.0600e- 003	9.0500e- 003	3.8500e- 003	6.0000e- 005		7.3000e- 004	7.3000e- 004		7.3000e- 004	7.3000e- 004	0.0000	10.4830	10.4830	2.0000e- 004	1.9000e- 004	10.5453

## **Mitigated**

	NaturalGa s 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					ton	s/yr							MT	/yr		
Condo/Townhous e	146565	7.9000e- 004	6.7500e- 003	2.8700e- 003	4.0000e- 005		5.5000e- 004	5.5000e- 004	1 1 1	5.5000e- 004	5.5000e- 004	0.0000	7.8213	7.8213	1.5000e- 004	1.4000e- 004	7.8677
Total		7.9000e- 004	6.7500e- 003	2.8700e- 003	4.0000e- 005		5.5000e- 004	5.5000e- 004		5.5000e- 004	5.5000e- 004	0.0000	7.8213	7.8213	1.5000e- 004	1.4000e- 004	7.8677

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5.3 Energy by Land Use - Electricity Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		MT	/yr	
Condo/Townhous e	37396.2	5.1241	4.9000e- 004	1.0000e- 004	5.1667
Total		5.1241	4.9000e- 004	1.0000e- 004	5.1667

## **Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		МТ	/yr	
Condo/Townhous e	36942.2	5.0619	4.9000e- 004	1.0000e- 004	5.1040
Total		5.0619	4.9000e- 004	1.0000e- 004	5.1040

#### 6.0 Area Detail

## **6.1 Mitigation Measures Area**

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	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	-/yr		
Mitigated	0.0535	9.7000e- 004	0.0740	5.0000e- 005		3.4700e- 003	3.4700e- 003		3.4700e- 003	3.4700e- 003	0.3191	0.2160	0.5351	5.9000e- 004	2.0000e- 005	0.5562
Unmitigated	0.0535	9.7000e- 004	0.0740	5.0000e- 005		3.4700e- 003	3.4700e- 003		3.4700e- 003	3.4700e- 003	0.3191	0.2160	0.5351	5.9000e- 004	2.0000e- 005	0.5562

# 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					ton	s/yr							МТ	/yr		
Architectural Coating	5.4700e- 003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0304	,		,		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0162	3.7000e- 004	0.0222	4.0000e- 005		3.1800e- 003	3.1800e- 003		3.1800e- 003	3.1800e- 003	0.3191	0.1311	0.4502	5.1000e- 004	2.0000e- 005	0.4693
Landscaping	1.5500e- 003	6.0000e- 004	0.0518	0.0000		2.9000e- 004	2.9000e- 004	<del></del> -     	2.9000e- 004	2.9000e- 004	0.0000	0.0849	0.0849	8.0000e- 005	0.0000	0.0869
Total	0.0535	9.7000e- 004	0.0740	4.0000e- 005		3.4700e- 003	3.4700e- 003		3.4700e- 003	3.4700e- 003	0.3191	0.2160	0.5351	5.9000e- 004	2.0000e- 005	0.5562

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# 6.2 Area by SubCategory Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					ton	s/yr							МТ	/yr		
Architectural Coating	5.4700e- 003					0.0000	0.0000	 	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0304	       				0.0000	0.0000	1   	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0162	3.7000e- 004	0.0222	4.0000e- 005		3.1800e- 003	3.1800e- 003	1       	3.1800e- 003	3.1800e- 003	0.3191	0.1311	0.4502	5.1000e- 004	2.0000e- 005	0.4693
Landscaping	1.5500e- 003	6.0000e- 004	0.0518	0.0000		2.9000e- 004	2.9000e- 004	1       	2.9000e- 004	2.9000e- 004	0.0000	0.0849	0.0849	8.0000e- 005	0.0000	0.0869
Total	0.0535	9.7000e- 004	0.0740	4.0000e- 005		3.4700e- 003	3.4700e- 003		3.4700e- 003	3.4700e- 003	0.3191	0.2160	0.5351	5.9000e- 004	2.0000e- 005	0.5562

#### 7.0 Water Detail

## 7.1 Mitigation Measures Water

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	Total CO2	CH4	N2O	CO2e
Category		MT	√yr	
Mitigated	0.0207	0.0149	3.6000e- 004	1.1008
Unmitigated	0.0207	0.0149	3.6000e- 004	1.1008

# 7.2 Water by Land Use Unmitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		MT	-/yr	
Condo/Townhous e	0.456078 / 0.287528		0.0149	3.6000e- 004	1.1008
Total		0.6207	0.0149	3.6000e- 004	1.1008

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## 7.2 Water by Land Use

## **Mitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		MT	-/yr	
Condo/Townhous e	0.456078 / 0.287528		0.0149	3.6000e- 004	1.1008
Total		0.6207	0.0149	3.6000e- 004	1.1008

#### 8.0 Waste Detail

## 8.1 Mitigation Measures Waste

## Category/Year

	Total CO2	CH4	N2O	CO2e
		МТ	√yr	
gatea	0.6536	0.0386	0.0000	1.6193
Unmitigated	0.6536	0.0386	0.0000	1.6193

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8.2 Waste by Land Use <u>Unmitigated</u>

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		МТ	-/yr	
Condo/Townhous e	3.22	0.6536	0.0386	0.0000	1.6193
Total		0.6536	0.0386	0.0000	1.6193

## **Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhous e	3.22	0.6536	0.0386	0.0000	1.6193
Total		0.6536	0.0386	0.0000	1.6193

# 9.0 Operational Offroad

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

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# 10.0 Stationary Equipment

## **Fire Pumps and Emergency Generators**

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

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

#### **User Defined Equipment**

Equipment Type	Number

## 11.0 Vegetation