

CITY OF CUPERTINO
RECOMMENDATION OF ENVIRONMENTAL REVIEW COMMITTEE
March 1, 2018

As provided by the Environmental Assessment Procedure, adopted by the City Council of the City of Cupertino on May 27, 1983, as amended, the following described project was reviewed by the Environmental Review Committee of the City of Cupertino on March 1, 2018.

PROJECT DESCRIPTION AND LOCATION

Application No(s): EA-2017-02, TM-2017-02, R-2018-08, R-2018-09, TR-2018-05
Applicant: Cindy Hsu (Greenleaf Group, LLC)
Location: 22561 Alcalde Road APN# 342-29-063

DISCRETIONARY ACTION REQUEST

Approval of a Mitigated Negative Declaration for a Tentative Map application to allow the subdivision of a 19,562 square foot lot into 2 residential lots of approximately 8,892 square feet each; and to allow the construction of 2, new two-story single family residences on the newly created lots; and a Tree Removal Permit to allow the removal and replacement of trees to facilitate the residential construction.

FINDINGS OF THE ENVIRONMENTAL REVIEW COMMITTEE

The Environmental Review Committee recommends the granting of a Mitigated Negative Declaration finding that the project is consistent with the General Plan and is determined to be insignificant.



Benjamin Fu
Assist. Director of Community Development

**CITY OF CUPERTINO
COMMUNITY DEVELOPMENT DEPARTMENT**



**Alcalde Road Lot Split Project
INITIAL STUDY/MITIGATED NEGATIVE
DECLARATION**

January 2018



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Air Quality and GHG Modeling Results

INITIAL STUDY

January 2018

A. BACKGROUND

1. Project Title: Alcalde Road Lot Split Project
2. Lead Agency Name and Address: City of Cupertino
Community Development Department
10300 Torre Avenue
Cupertino, CA 95014-3255
3. Contact Person and Phone Number: Gian Paolo Martire
Associate Planner
(408) 777-3319
4. Project Location: 22561 Alcalde Road
Cupertino, CA 95014
5. Project Sponsor's Name and Address: Cindy Hsu
Greenleaf Group LLC
10229 Scenic Boulevard
Cupertino, CA 95014
6. General Plan Designation: Low/Medium Density (5-10 du/ac.)
7. Zoning Designation: Single-Family Residential (R1-7.5)]
8. Project Description Summary:

The Alcalde Road Lot Split Project is located at 22561 Alcalde Road in the City of Cupertino, California. The proposed project site is bordered by Alcalde Road to the south, and by existing one- and two-story, single-family residential development to the north, east, and west. Additional single-family homes are located south of the site across Alcalde Road. The project would include demolition of a small number of existing on-site structures and subdivision of the 19,562-square-foot property into two approximately 8,892-square-foot lots. The site would be redeveloped with two single-family two-story residences. In addition, the proposed project would include widening of the Alcalde Road right-of-way along the project frontage.

B. SOURCES

The following documents are referenced information sources used for purposes of this Initial Study/Mitigated Negative Declaration:

1. Bay Area Air Quality Management District. *Plans & Climate*. Available at: <http://www.baaqmd.gov/plans-and-climate>. Accessed September 2017.
2. Bay Area Air Quality Management District. *Air Quality Standards and Attainment Status*. Available at: <http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status>. Accessed November 2017.
3. Bay Area Air Quality Management District. *CalEEMod Air Quality and Greenhouse Gas Emissions Estimates for the Proposed Alcalde Road Lot Split Project, Cupertino, California*. January 2018.
4. Bay Area Air Quality Management District. *California Environmental Quality Act, Air Quality Guidelines*. May 2017.
5. California Air Pollution Control Officer's Association (CAPCOA). *California Emissions Estimator Model, User's Guide, Version 2016.3.2*. November 2017.
6. California Department of Conservation. *Santa Clara County Important Farmland Map 2014*. Published October 2016.
7. California Department of Conservation. *Special Studies Zones, Cupertino Quadrangle*. Effective July 1, 1974.
8. California Department of Forestry and Fire Protection. *Santa Clara County, Very High Fire Hazard Severity Zones in LRA*. October 8, 2008.
9. California Department of Toxic Substances Control. *Hazardous Waste and Substances Site List*. Available at: http://www.dtsc.ca.gov/SiteCleanup/Cortese_List.cfm. Accessed March 2017.
10. California Department of Transportation. *California Scenic Highway Mapping System*. Available at: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm. Accessed March 2017.
11. California Department of Transportation. *Transportation and Construction Vibration, Guidance Manual*. September 2013.
12. California Environmental Protection Agency, California Air Resources Board. *Air Quality and Land Use Handbook: A Community Health Perspective*. April 2005.
13. City of Cupertino. *Emergency Operations Plan*. September 2005.
14. City of Cupertino. *General Plan Amendment, Housing Element Update, and Associated Rezoning Draft EIR*. June 18, 2014.
15. City of Cupertino. *General Plan: Community Vision 2015 – 2040*. Adopted October 20, 2015.
16. Institute of Transportation Engineers. *Trip Generation Handbook, 9th Edition*. September 2012.
17. PIERS Environmental Services. *Addendum to Report of Subsurface Investigation and Transmittal of Additional Results, 22561 Alcalde Road, Cupertino, California*. January 8, 2018.
18. PIERS Environmental Services. *Phase I Environmental Site Assessment, 22561 Alcalde Road, Cupertino, California 95014*. July 17, 2017.

19. PIERS Environmental Services. *Report of Limited Phase II Subsurface Investigation, 22561 Alcalde Road, Cupertino, California 95014.* August 19, 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 “Less than Significant with Mitigation Incorporated” as indicated by the checklist on the following pages.

- | | | |
|---|---|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forest Resources | <input type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology and Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input checked="" type="checkbox"/> Hazards and Hazardous Materials | <input type="checkbox"/> Hydrology and Water Quality |
| <input type="checkbox"/> Land Use and Planning | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Population and Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation and Circulation | <input type="checkbox"/> Tribal Cultural Resources | <input type="checkbox"/> Utilities and Service Systems |
| <input type="checkbox"/> Mandatory Findings of Significance | | |

D. DETERMINATION

On the basis of this initial study:

- ☐ I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the Proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the applicant. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Gian Paolo Martire, Associate Planner

Printed Name

Date

City of Cupertino

For

E. BACKGROUND AND INTRODUCTION

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

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

On October 20, 2015, the City of Cupertino adopted an amended General Plan¹ and an associated Environmental Impact Report (EIR).² The General Plan EIR is a program EIR, prepared pursuant to Section 15168 of the CEQA Guidelines (Title 14, California Code of Regulations, Sections 15000 *et seq.*). The General Plan EIR analyzed full implementation of the General Plan and identified measures to mitigate the significant adverse impacts associated with buildout of the General Plan. The proposed project would be consistent with the General Plan; therefore, in accordance with Section 15150 of the CEQA Guidelines (Section 21083.3 of the Public Resources Code), this IS/MND will tier from the previously certified EIR (SCH# 2014032007) prepared for the City's General Plan where appropriate.

F. PROJECT DESCRIPTION

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

Project Location and Setting

The proposed project site consists of an approximately 19,562-square-foot (0.45-acre) property located at 22561 Alcalde Road in the City of Cupertino, California (see Figure 1). The site is identified by Assessor's Parcel Number (APN) 341-29-063 and is zoned Single-Family Residential with a minimum lot size of 7,500 (R1-7.5). The City's General Plan designates the site as Low/Medium Density (5-10 du/ac). The proposed project site is bordered by Alcalde Road to the south, and by existing one- and two-story, single-family residential development to the north, east, and west (see Figure 2). Additional single-family homes are located south of the site across Alcalde Road. The nearest major roadway, South Foothill Boulevard, is located approximately 165 feet east of the site.

¹ City of Cupertino. *General Plan: Community Vision 2015 – 2040*. Adopted October 20, 2015.

² City of Cupertino. *General Plan Amendment, Housing Element Update, and Associated Rezoning Draft EIR*. June 18, 2014.

Figure 1 Regional Location

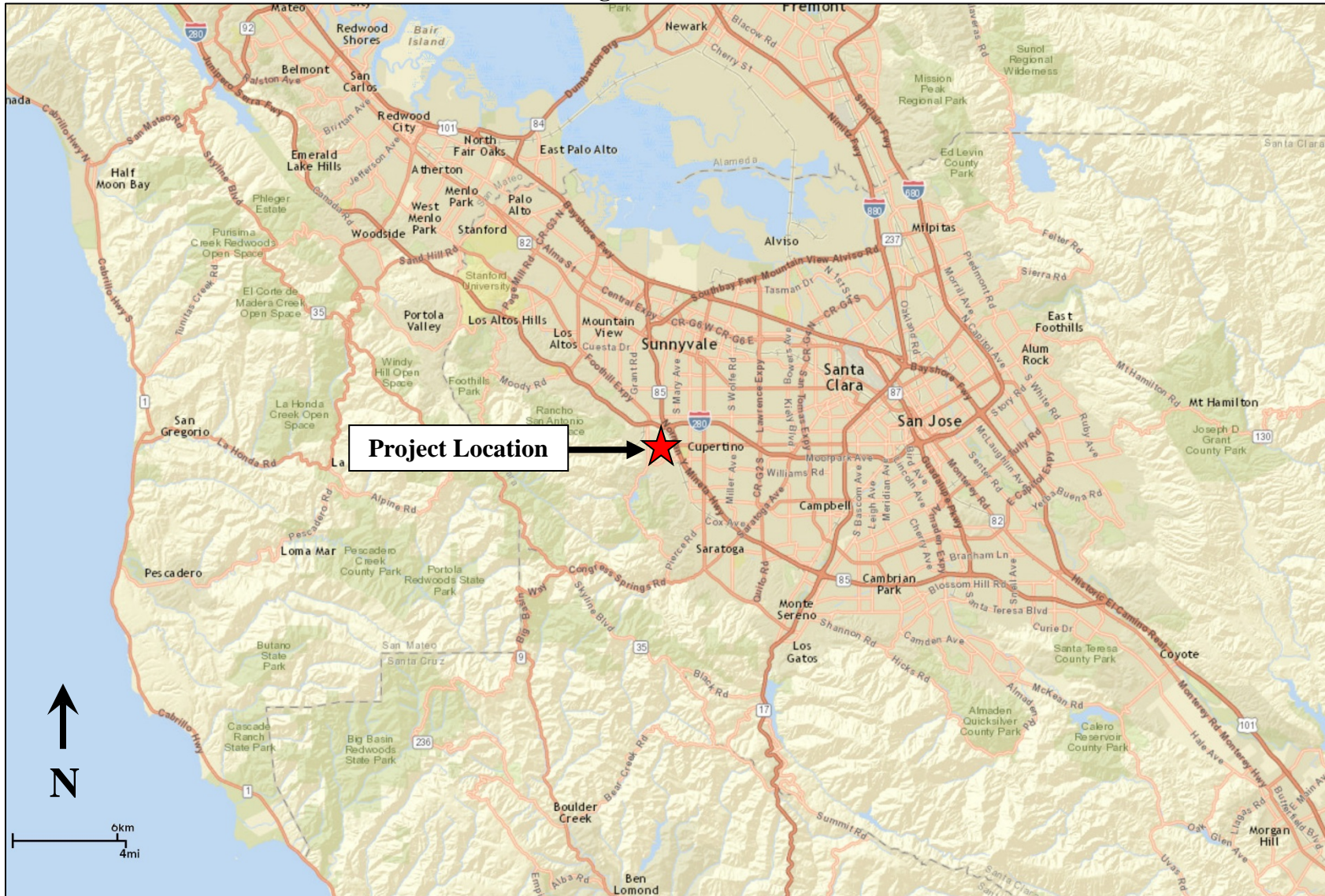


Figure 2
Project Vicinity Map



The proposed project site currently contains a residence (approximately 2,520 square feet). Access to the residence is provided by a concrete driveway from Alcalde Road. A 180-square-foot shed and a concrete patio are also present on the site. Vegetation on the site consists primarily of landscaping associated with the residence, including some grass and shrubs, as well as nine trees. Aquatic or riparian habitat on or in the vicinity of the site does not exist. Currently sidewalks do not exist along the frontage of the project site. Existing sidewalks along Alcalde Road are discontinuous in the vicinity of the project site, particularly towards the west of the site; however, portions of the existing sidewalks along Alcalde Road connect to other nearby roadways including Santa Lucia Road and Lockwood Drive to the west of the project site, and South Foothill Boulevard to the east.

Project Components

The proposed project would include demolition of the existing on-site residence and associated structures, removal of seven of the on-site trees, subdivision of the 19,562-square-foot lot into two approximately 8,892-square-foot lots, and redevelopment of the site with two single-family two-story residences (see Figure 3). In addition, the proposed project would include widening of the Alcalde Road right-of-way by ten feet at the widest point (an approximately 370-square-foot area) along the project frontage, which would be dedicated to the City. The project would be consistent with the existing zoning and General Plan land use designations for the site.

Both of the proposed single-family residences would be two stories. As shown in Figure 4, the proposed single-family residences would include attached garages, and front and rear porch areas. Sewer and water service for the proposed residences would be provided by the City by way of connections to existing sanitary sewer and water supply lines located in Alcalde Road. New paved driveways would connect the garages of the two residences to the widened roadway.

On-site runoff would be captured by a new series of downspouts on the eastern and western sides of both of the proposed residences (see Figure 4). Runoff from the downspouts would enter a six-inch perforated pipe continuing into a bubbler drain system that would collect and route the water onto vegetated areas within the front yards of the proposed residences.

Discretionary Action

Implementation of the proposed project would require City approval of a Tentative Parcel Map to subdivide the proposed project site into two approximately 8,892-square-foot lots.

Figure 3
Conceptual Site Plan

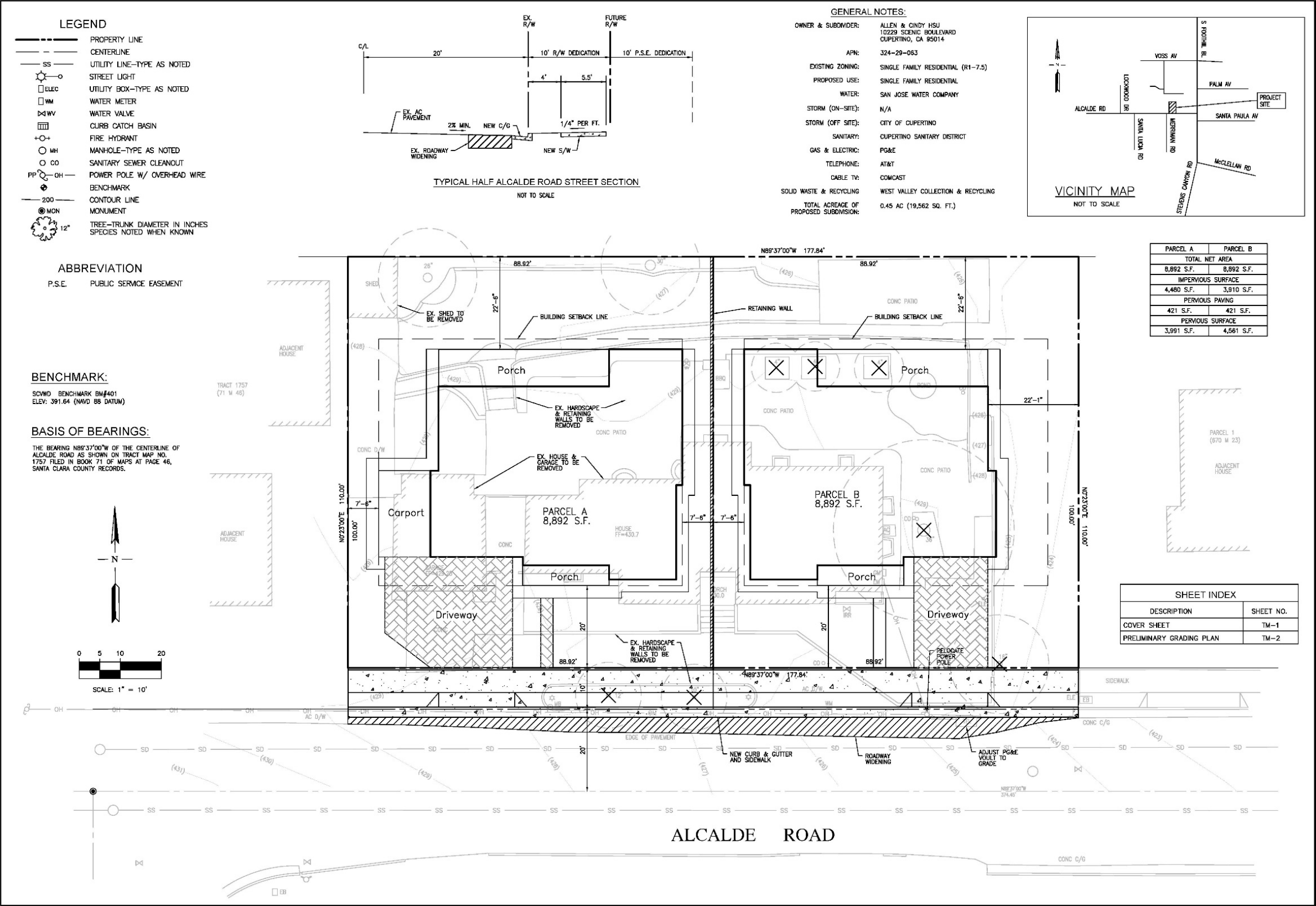
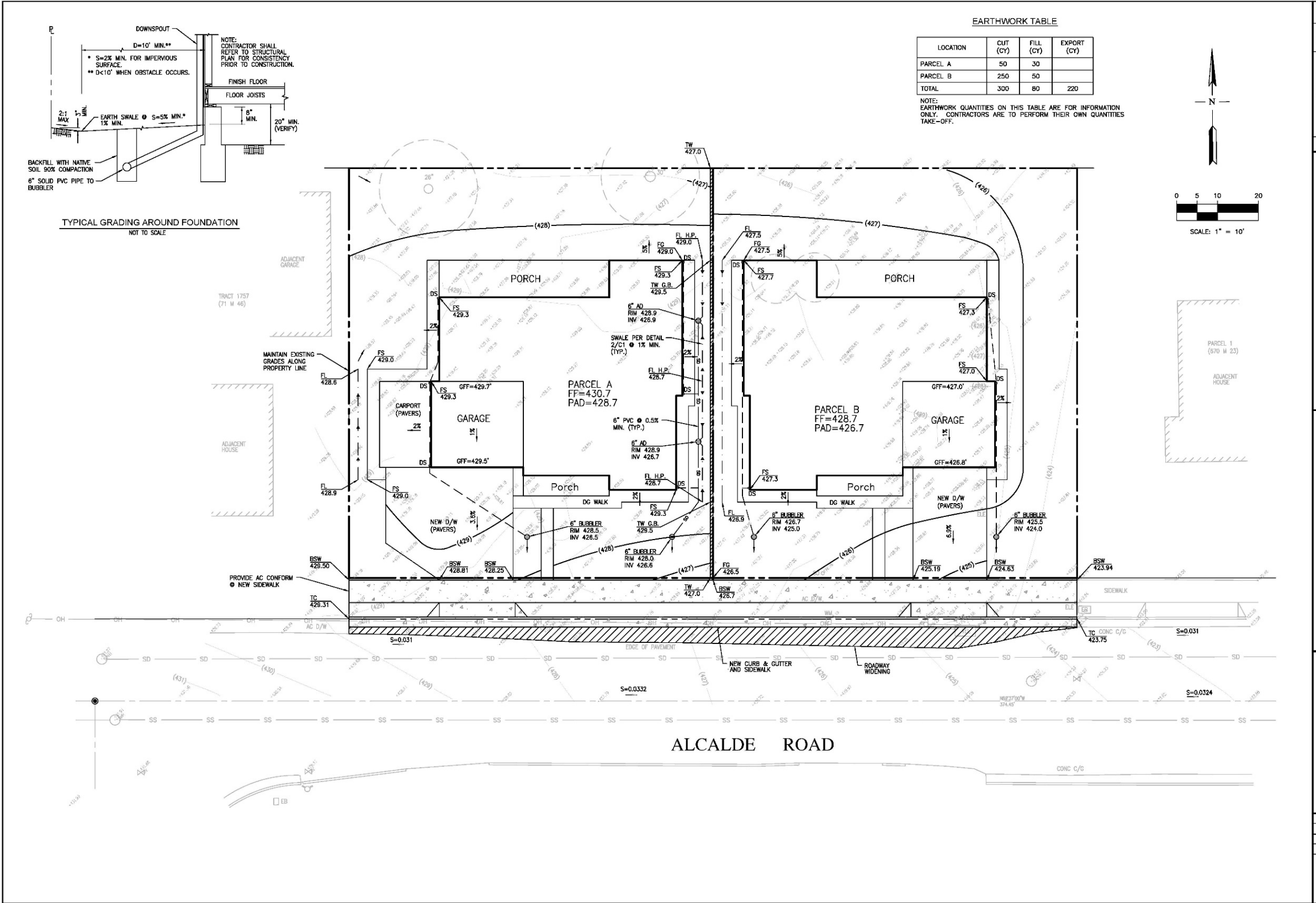


Figure 4
Conceptual Grading and Drainage Plan



G. ENVIRONMENTAL CHECKLIST

The following Checklist contains the environmental checklist form presented in Appendix G of the CEQA Guidelines. The checklist form is used to describe the impacts of the proposed project. A discussion follows each environmental issue 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. <i>Would the project:</i>		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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
b.	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
c.	Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
d.	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

Discussion

- a,b. 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. Given that the proposed project site is currently developed and is located in a residential neighborhood, redevelopment of the site with two single-family two-story homes would not obstruct views of a scenic vista. Furthermore, according to the California Scenic Highway Mapping System, the proposed project site is located approximately 4.5 miles north of the nearest State Scenic Highway, State Route (SR) 9, and approximately 1.2 miles south of Interstate 280 (I-280), an Eligible State Scenic Highway.³ Neither SR 9 or I-280 are visible from the project site.

Based on the above discussion, the proposed project would not have a substantial adverse effect on a scenic vista and would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway. Thus, ***no impact*** would occur related to such.

- c. Distinguishing between public and private views is important when evaluating changes to visual character or quality, because private views are views seen from privately-owned land and are typically associated with individual viewers, including views from private residences. Public views are experienced by the collective public, and include views of significant landscape features and along scenic roads. According to CEQA (Pub. Resources Code, § 21000 et seq.) case law, only public views, not private views, are protected under CEQA. For example, in *Association for Protection etc. Values v. City of Ukiah* (1991) 2 Cal.App.4th 720 [3 Cal. Rptr.2d 488], the court determined that "we must differentiate between adverse impacts upon particular persons and adverse impacts upon the environment of persons in general. As recognized by the court in *Topanga Beach Renters*

³ California Department of Transportation. *California Scenic Highway Mapping System*. Available at: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm. Accessed March 2017.

Assn. v. Department of General Services (1976) 58 Cal.App.3d 188 [129 Cal.Rptr. 739]: “[A]ll government activity has some direct or indirect adverse effect on some persons. The issue is not whether [the project] will adversely affect particular persons but whether [the project] will adversely affect the environment of persons in general.” Therefore, the focus in this section is on potential impacts to public views. Sensitive public viewers in the surrounding area would primarily consist of motorists, pedestrians, and bicyclists travelling on Alcalde Road.

Views of the proposed project site from Alcalde Road currently consist of the existing on-site single-family residence, the existing on-site driveway, and various trees and shrubs located on the southern portion of the site. The project site is bordered on the east and west by two-story, single-family residences. The proposed project would include demolition of the existing on-site structures, removal of a majority of the on-site vegetation, and redevelopment of the site with two single-family two-story residences and new landscape plantings. As discussed previously, Alcalde Road would be widened along the project frontage. The proposed residences would be designed to be visually congruous with the existing residences to the east and west of the project site.

Given that the site is already developed with a residential use, and the project would be consistent with the surrounding single-family residential development, the project would not substantially degrade the aesthetic character or quality of the site for motorists, pedestrians, and bicyclists travelling along Alcalde Road. In addition, the project would be consistent with the site’s existing zoning and General Plan land use designations. As such, changes to aesthetic character and quality associated with buildout of the site have been previously analyzed in the General Plan EIR. Therefore, impacts related to degrading the existing visual character of the site and its surroundings would be *less than significant*.

- d. The project site is currently developed with a residential structure, and, thus, the site contains existing sources of light and glare associated with such, including, but not limited to, headlights on cars using the on-site driveway, exterior light fixtures, and interior light spilling through windows. In addition, the site is surrounded by existing residential development that currently generates similar light and glare in the area. Therefore, redevelopment of the site with two residential homes would not introduce new sources of substantial light or glare to the site which would adversely affect day or nighttime views in the area, and implementation of the proposed project would result in a *less-than-significant* impact.

II. AGRICULTURE AND FOREST RESOURCES.

Would the project:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
d. Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗

Discussion

- a,e. The proposed project site is currently developed with a residential use and is surrounded by existing residential development. While the project site and vicinity to the north and east historically consisted of orchards, the site was developed with the existing residence in 1962.⁴ Thus, the site has not been used for agricultural production for some time and is currently designated as “Urban and Built-Up Land” on the Santa Clara County Important Farmland map.⁵ Furthermore, the site is not zoned or designated in the General Plan for agricultural uses. Given the designation of the site as Urban and Built-Up Land, development of the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use, or otherwise result in the loss of Farmland to non-agricultural use. Therefore, ***no impact*** would occur as a result of the proposed project.
- b. The proposed project site is not under a Williamson Act contract and is not designated or zoned for agricultural uses. Therefore, buildout of the proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract, and ***no impact*** would occur.

⁴ PIERS Environmental Services. *Report of Limited Phase II Subsurface Investigation, 22561 Alcalde Road, Cupertino, California 95014*. August 19, 2017.

⁵ California Department of Conservation. *Santa Clara County Important Farmland Map 2014*. Published October 2016.

- c,d. The project site is not considered forest land (as defined in Public Resources Code section 12220[g]), timberland (as defined by Public Resources Code section 4526), and is not zoned Timberland Production (as defined by Government Code section 51104[g]). The General Plan land use designation for the project site is Low/Medium Density Residential. The zoning designation for the project site is Single-Family Residential. Therefore, the proposed project would have ***no impact*** with regard to conversion of forest land or any potential conflict with forest land, timberland, or Timberland Production zoning.

III. AIR QUALITY.

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less- Than- Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
d. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
e. Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
a,b. The City of Cupertino is located in the San Francisco Bay Area Air Basin (SFBAAB), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The SFBAAB is currently designated as a nonattainment area for the State and federal ozone, State and federal fine particulate matter 2.5 microns in diameter (PM _{2.5}), and State respirable particulate matter 10 microns in diameter (PM ₁₀) ambient air quality standards (AAQS). The SFBAAB is designated attainment or unclassified for all other AAQS. It should be noted that on January 9, 2013, the U.S. Environmental Protection Agency (USEPA) issued a final rule to determine that the Bay Area has attained the 24-hour PM _{2.5} federal AAQS. Nonetheless, the Bay Area must continue to be designated as nonattainment for the federal PM _{2.5} AAQS until such time as the BAAQMD submits a redesignation request and a maintenance plan to the USEPA, and the USEPA approves the proposed redesignation.				

In compliance with regulations, due to the nonattainment designations of the area, the BAAQMD periodically prepares and updates air quality plans that provide emission reduction strategies to achieve attainment of the AAQS, including control strategies to reduce air pollutant emissions through regulations, incentive programs, public education, and partnerships with other agencies. The current air quality plans are prepared in cooperation with the Metropolitan Transportation Commission (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 USEPA on November 30, 2001 for review and approval. The most recent State ozone plan is the 2010 Clean Air Plan (CAP), adopted on September 15, 2010. The 2010 CAP was developed as a multi-pollutant plan that provides an integrated control strategy to reduce ozone, PM, toxic air contaminants (TACs), and greenhouse gases (GHGs). Although a plan for achieving the State PM₁₀ standard is not required, the BAAQMD has prioritized measures to reduce PM in

developing the control strategy for the 2010 CAP. The control strategy serves as the backbone of the BAAQMD's current PM control program.

The aforementioned air quality plans contain mobile source controls, stationary source controls, and transportation control measures to be implemented in the region to attain the State and federal AAQS within the SFBAAB. Adopted BAAQMD rules and regulations, as well as the thresholds of significance, have been developed with the intent to ensure continued attainment of AAQS, or to work towards attainment of AAQS for which the area is currently designated nonattainment, consistent with applicable air quality plans. The BAAQMD's established significance thresholds associated with development projects for emissions of the ozone precursors reactive organic gases (ROG) and oxides of nitrogen (NO_x), as well as for PM₁₀, and PM_{2.5}, expressed in pounds per day (lbs/day) and tons per year (tons/yr), are listed in Table 1. By exceeding the BAAQMD's mass emission thresholds for operational emissions of ROG, NO_x, PM₁₀, or PM_{2.5} a project would be considered to conflict with or obstruct implementation of the BAAQMD's air quality planning efforts.

Table 1			
BAAQMD Thresholds of Significance			
Pollutant	Construction	Operational	
	Average Daily Emissions (lbs/day)	Average Daily Emissions (lbs/day)	Maximum Annual Emissions (tons/year)
ROG	54	54	10
NO _x	54	54	10
PM ₁₀ (exhaust)	82	82	15
PM _{2.5} (exhaust)	54	54	10

Source: BAAQMD, CEQA Guidelines, May 2017.

The proposed project's construction and operational emissions were quantified using the California Emissions Estimator Model (CalEEMod) software version 2016.3.2 - a Statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions, including GHG emissions, from land use projects. The model applies inherent default values for various land uses, including construction data, trip generation rates based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition, vehicle mix, trip length, average speed, etc. In addition, the model assumes compliance with the most recent 2016 Title 24 Standards. However, where project-specific information is available, such information should be applied in the model. Accordingly, the proposed project's modeling assumed the following:

- Construction would occur over an approximately five-month period;
- The existing structures to be demolished was assumed to consist of a total of approximately 5,166 square feet;
- A total of approximately 0.45-acre of land would be disturbed during site preparation;

- A total of 130 cubic yards of material would be imported during site preparation; and
- A total of 363 cubic yards of material could be exported during site preparation as part of the soil remediation activities discussed in Section VIII, Hazards and Hazardous Materials, of this IS/MND. It should be noted that the actual volume of soil to be removed would likely be less; however, the soil amount assumed is based on a worst-case scenario in order to provide a conservative analysis.

All CalEEMod results are included as an appendix to this IS/MND.

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

Construction Emissions

According to the CalEEMod results, the proposed project would result in maximum unmitigated construction criteria air pollutant emissions as shown in Table 2. As shown in the table, the proposed project's construction emissions would be below the applicable thresholds of significance for ROG, NO_x, PM₁₀, and PM_{2.5}.

Table 2 Maximum Unmitigated Construction Emissions (lbs/day)			
Pollutant	Proposed Project Emissions	Threshold of Significance	Exceeds Threshold?
ROG	1.89	54	NO
NO _x	30.31	54	NO
PM ₁₀ (exhaust)	0.86	82	NO
PM ₁₀ (fugitive)	1.66	None	N/A
PM _{2.5} (exhaust)	0.80	54	NO
PM _{2.5} (fugitive)	0.44	None	N/A
<i>Source: CalEEMod, January 2018 (see appendix).</i>			

Although thresholds of significance for mass emissions of fugitive dust PM₁₀ and PM_{2.5} have not been identified by the City of Cupertino or BAAQMD, the proposed project's estimated fugitive dust emissions have been included for informational purposes. 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.
5. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five 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 implementation of the BAAQMD's Basic Construction Mitigation Measures listed above would help to further minimize construction-related emissions. Because the proposed project would be below the applicable thresholds of significance for construction emissions, the proposed project would not be considered to result in a significant air quality impact during construction.

Operational Emissions

According to the CalEEMod results, the proposed project would result in maximum unmitigated operational criteria air pollutant emissions as shown in Table 3. As shown in the table, the proposed project's operational emissions would be below the applicable thresholds of significance. Because the proposed project's operational emissions would be below the applicable thresholds of significance, the proposed project would result in a less-than-significant air quality impact during operations.

Table 3					
Maximum Unmitigated Operational Emissions					
Pollutant	Proposed Project Emissions		Threshold of Significance		Exceeds Threshold?
	lbs/day	tons/yr	lbs/day	tons/yr	
ROG	2.20	0.04	54	10	NO
NO _x	0.22	0.03	54	10	NO
PM ₁₀ (exhaust)	0.38	0.00	82	15	NO
PM ₁₀ (fugitive)	0.09	0.02	None	None	N/A
PM _{2.5} (exhaust)	0.38	0.00	54	10	NO
PM _{2.5} (fugitive)	0.03	0.00	None	None	N/A
<i>Source: CalEEMod, January 2018 (see appendix).</i>					

Conclusion

As stated previously, the applicable regional air quality plans include the 2001 Ozone Attainment Plan and the 2010 CAP. According to BAAQMD, if a project would not result in significant and unavoidable air quality impacts after the application of all feasible mitigation, the project may be considered consistent with the air quality plans. Because the proposed project would result in emissions below 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, violate any air quality standard, or contribute substantially to an existing or projected air quality violation. Therefore, a *less-than-significant* impact would occur.

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

In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. The thresholds of significance presented in Table 1 represent the levels at which a project's individual emissions of criteria air pollutants or precursors would result in a cumulatively considerable contribution to the SFBAAB's existing air quality conditions. If a project exceeds the significance thresholds presented in Table 1, the proposed project's emissions would be cumulatively considerable, resulting in significant adverse cumulative air quality impacts to the region's existing air quality conditions. Because the proposed project would result in emissions below the applicable thresholds of significance for both construction and operation, the project would not result in a cumulatively considerable contribution to the region's existing air quality conditions.

Based on the above, the proposed project would not 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. Thus, 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 to the project site would be the single-family residences located immediately to the east, north, and west of the site.

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

Localized CO Emissions

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

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

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

The applicable Congestion Management Plan (CMP) for the proposed project site is the Santa Clara Valley Transportation Authority (VTA) CMP.⁶ As discussed in the Transportation and Circulation section of this IS/MND, the proposed project would not conflict with the VTA CMP. In addition, the proposed project would be anticipated to generate a total of 19 average daily trips (ADT). Given the relatively small number of trips that would be generated, the project would not substantially affect traffic volumes at intersections in the project vicinity. 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, based on the BAAQMD screening criteria, 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.

⁶ Santa Clara Valley Transportation Authority. *2013 Congestion Management Program*. October 2013.

TAC Emissions

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

The 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. 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. Nevertheless, 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. In addition, construction activity (except for street construction) would be limited to daytime hours per Section 10.48.053 of the City's Municipal Code.

Because construction equipment on-site would not operate for long periods of time and would occur on a relatively small scale, associated emissions of DPM would be minimal. 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, the proposed project would not expose any sensitive receptors to substantial concentrations of localized CO or TACs from construction or operation. Therefore, the proposed project would result in a ***less-than-significant*** impact related to the exposure of sensitive receptors to substantial pollutant concentrations.

- 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. Residential land uses, such as the proposed single-family homes, are not typically associated with objectionable odors.

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

For the aforementioned reasons, construction and operation of the proposed project would not create objectionable odors affecting a substantial number of people, and a *less-than-significant* impact related to objectionable odors would result.

IV. BIOLOGICAL RESOURCES.

Would the project:

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less- Than- Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	✗	<input type="checkbox"/>	<input type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗

Discussion

- a. The proposed project site comprises a 19,562-square-foot property located in a residential neighborhood. The site is currently developed with a residential use and is highly disturbed as a result. Vegetation on the site consists of landscaping associated with the residence, including some grass and shrubs, as well as nine trees (seven of which are to be removed). The proposed project site does not contain any aquatic or riparian habitat.

A query of CNDDDB was performed in order to determine the potential plant and wildlife species that could occur within the proposed project area. The Cupertino Quad was used as the search area. The CNDDDB query results indicate 18 special-status plant and wildlife species that are known to occur within the project vicinity. However, due to the highly-disturbed nature of the project site, the requisite habitat types for any of the identified special-status species do not occur on-site. For example, the species require aquatic,

woodland, chaparral, or proximate open grassland habitat, which does not occur on-site or in the immediate project vicinity.

While special-status species would not occur on-site, migratory birds have the potential to nest within the on-site trees and shrubs. 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 raptors and/or migratory birds, potentially occurring in the trees. Therefore, 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, and a ***potentially significant*** impact could result.

Mitigation Measure(s)

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

IV-1. A pre-construction survey for nesting birds shall be conducted for the project site and a 250-foot radius around the project site by a qualified biologist not more than two weeks prior to site disturbance during the breeding season (February 1 to August 31). If site disturbance commences outside the breeding season, a pre-construction survey for nesting birds is not required. If active nests of migratory birds are not detected within approximately 250 feet of the project site, further mitigation is not required. Results of the survey shall be submitted to the Community Development Department.

If nesting raptors or other migratory birds are detected on or within 250 feet of the site during the survey, a suitable construction-free buffer shall be established around all active nests. The dimensions of the buffer shall be a minimum of 75 feet for passerine birds and 250 feet for raptors. The buffer size may vary depending on location and species. The buffer areas shall be enclosed with temporary fencing, and construction equipment and workers shall not enter the enclosed setback areas. Buffers shall remain in place for the duration of the breeding season or until a qualified biologist has confirmed that all chicks have fledged and are independent of their parents.

- b,c. The project site is currently developed with a residential use, and, thus, is highly disturbed. The site does not contain any aquatic features or riparian habitat, and sensitive plant communities, including wetlands, do not exist on or near the site. As a result, the proposed project would not have a substantial adverse effect on riparian habitat, sensitive natural communities, or federally protected wetlands. Thus, ***no impact*** would occur.
- d. The project site is surrounded by existing development and is not linked to any open space areas through which wildlife movement would occur. As noted above, the project does not

contain streams or other waterways that could be used by migratory fish or as a wildlife corridor for other wildlife species. As such, the project would not interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites. Thus, ***no impact*** would occur.

- e. Based on the project plans, as shown in Figure 3, the project would involve the removal of seven trees, some of which may be considered protected trees pursuant to Section 14.18.050 of the City's Municipal Code. If the on-site trees to be removed are indeed protected trees, the applicant must first obtain a tree removal permit from the City's Community Development Department and pay the permit fee. The information required when submitting a tree removal permit application, includes, but is not limited to, the following:

- A drawing outlining the location of the tree(s) and proposed tree replacements.
- A written explanation of why the tree(s) should be removed.

In conjunction with the tree removal permit, the City would impose tree replacement standards or in-lieu fees pursuant to Section 14.18.160 of the Municipal Code. Furthermore, per Section 14.18.060 of the Municipal Code, the project applicant would be required to adopt a maintenance plan for any protected trees that would be retained as part of the project. Compliance with Chapter 14.18 of the City's Municipal Code, as described above, would ensure that the proposed project would not conflict with the City's tree preservation policies and ordinances. Therefore, the project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and a ***less-than-significant*** impact would occur.

- f. The City of Cupertino is not currently participatory to a Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP). Therefore, the project site is not located in an area with an approved HCP/NCCP, or local, regional, or State habitat conservation plan, and ***no impact*** would occur regarding a conflict with the provisions of such a plan.

V. CULTURAL RESOURCES. <i>Would the project:</i>		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?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
b.	Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
c.	Directly or indirectly destroy a unique paleontological resource on site or unique geologic features?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
d.	Disturb any human remains, including those interred outside of formal cemeteries.	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

Discussion

- a. Historical resources are 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. Examples of typical historical resources include, but are not limited to, buildings, farmsteads, rail lines, bridges, and trash scatters containing objects such as colored glass and ceramics. As discussed previously, the proposed project site currently contains a residential structure and a shed.

According to a Phase I Environmental Site Assessment (ESA) prepared for the proposed project by PIERS Environmental Services, the on-site residence was constructed circa 1962. In order to determine whether the on-site structures constitute historical resources, the structures were evaluated using the California Register of Historic Resources (CRHR) and National Register of Historic Places (NRHP) eligibility criteria.

CRHR Criteria

The CRHR eligibility criteria include the following:

- (1) It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the U.S.;
- (2) It is associated with the lives of persons important to local, California, or national history;
- (3) It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or
- (4) It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

In addition, the resource must retain integrity. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association.

NRHP Criteria

The NRHP eligibility criteria include the following: “The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess aspects of integrity of location, design, setting, materials, workmanship, feeling, association, and

- (a) is associated with events that have made a significant contribution to the broad patterns of our history;
- (b) is associated with the lives of a person or persons significance in our past;
- (c) embodies the distinctive characteristics of a type, period or method of construction, or represents the work of a master, or possesses high artistic value, or represents a significant and distinguishable entity whose components may lack individual distinction; or
- (d) has yielded or may be likely to yield information important in prehistory or history.

In addition, the resource must be at least 50 years old, except in exceptional circumstances.

Evaluation

The existing on-site structures are not associated with any significant historical events or narratives in the City of Cupertino or California, and are not likely to yield information important to the prehistory or history of the local area, California, or the nation. The site has not been occupied or owned by any persons important to local, State, or national history, and, thus, is not associated with the lives of a person or persons of significance. Additionally, the residence does not embody the distinctive characteristics of a type, period or method of construction, represent the work of a master, possess high artistic value, or represent a significant and distinguishable entity whose components may lack individual distinction.

Conclusion

Based on the above, the on-site structures are not eligible for consideration as historical resources per the CRHR or NRHP eligibility criteria, and, thus, would not be considered historical resources. Therefore, the 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. The proposed project site is currently developed with a residential structure, and, thus, is highly disturbed. In addition, the site is located within a residential neighborhood. Due to the disturbed nature of the site and the surrounding area, the discovery of underlying archeological, paleontological, and/or tribal resources is not expected. However, unknown archaeological resources, including human bone, have the potential to be uncovered during ground-disturbing construction activities at the proposed project site.

In compliance with State law (Section 7050.5 of the Health and Safety Code and Section 5097.94 of the Public Resources Code), as well as the City’s standard conditions of

approval, in the event human remains are encountered during grading and construction, all work within 50 feet of the find would be stopped, and the Santa Clara County Coroner's office would be notified. If the remains are determined to be Native American, the Coroner would notify the Native American Heritage Commission to identify the "Most Likely Descendant" (MLD). The City of Cupertino, in consultation with the MLD, would then prepare a plan for treatment, study, and re-internment of the remains.

Therefore, given the low likelihood of encountering resources, and the proposed project's compliance with the City's standard conditions of approval regarding cultural resources, the project would not cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5, directly or indirectly destroy a unique paleontological resource or geological feature on site, or disturb human remains, including those interred outside of formal cemeteries. Therefore, impacts would be considered *less than significant*.

VI. GEOLOGY AND SOILS.

Would 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 State Geologist for the area based on other substantial evidence of a known fault (Refer to Division of Mines and Geology Special Pub. 42)?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
ii. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
iii. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
iv. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
d. Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
a,c. According to the California Geological Survey Alquist-Priolo Earthquake Fault Zone Maps, the proposed project site is not located within the vicinity of an Alquist-Priolo Earthquake Fault Zone. ⁷ Figure HS-5 in the City's General Plan identifies areas in the City that are potentially at risk for fault rupture, landslides, and liquefaction/inundation. Areas mapped as Liquefaction/Inundation Zones by the City are also generally at risk for lateral spreading hazards. ⁸ Per Figure HS-5, the site is located within a Valley Zone, which is defined as an area with relatively low levels of geologic hazard risk. Therefore, the proposed project would not be at risk for fault rupture impacts, seismic-related ground failure (including liquefaction, lateral spreading and subsidence), or landslides. In addition, the project would be designed to comply with all applicable State and local regulations, including the California Building Code (CBC), which would minimize any potential risks associated with seismic ground shaking.				

⁷ California Department of Conservation. *Special Studies Zones, Cupertino Quadrangle*. Effective July 1, 1974.

⁸ City of Cupertino. *General Plan: Community Vision 2015 – 2040* [pg. E-5]. Adopted October 20, 2015.

Consequently, the proposed project would not expose people or structures to potential adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, and/or liquefaction or landslides. Therefore, a *less-than-significant* impact would result.

- b. The proposed project would require excavation and grading of the site prior to construction, including soil excavation and off-haul associated with on-site soil remediation (see Section VIII for additional discussion). During such early stages of construction, topsoil would be exposed. After grading and prior to overlaying the ground surface with structures, while topsoil would be exposed, the potential exists for wind and/or water erosion to occur, which could affect the project area and potentially inadvertently transport eroded soils to downstream waterways. However, topsoil exposure would be temporary during site preparation and would cease once development of the proposed single-family homes occurs.

The City's Municipal Code requires applicants to provide and comply with an Interim Erosion and Sediment Control Plan (Interim Plan). The Interim Plan shall show the location of erosion control measures and erosion control planting shall be shown on the site map/grading plan. The applicant shall provide the following information with respect to conditions existing on the site during land-disturbing or filling activities or stockpiling of soil:

1. A delineation and brief description of the measures to be undertaken to retain sediment on the site, including, but not limited to, the designs and specifications or berms and sediment detention basins, and a schedule for their maintenance and upkeep;
2. A delineation and brief description of the surface runoff and erosion control measures to be implemented, including, but not limited, to types and methods of applying mulches, and designs and specifications for diverters, dikes and drains, and a schedule for their maintenance and upkeep;
3. A delineation and brief description of the vegetative measures to be undertaken, including, but not limited to, seeding methods, and type, location and extent of preexisting and undisturbed vegetation types, and a schedule for maintenance and upkeep.

Because the project would comply with the City's interim erosion control requirements, the project would not result in substantial soil erosion or loss of topsoil. Therefore, a *less-than-significant* impact would occur.

- d. Expansive soils increase in volume when they absorb water and have the potential to crack or otherwise compromise the integrity of building foundations. According to the City's General Plan EIR, the proposed project site is not located in an area of the City known to contain highly expansive soils.⁹ Furthermore, the proposed project would be subject to applicable CBC regulations and provisions, as adopted in Chapter 16.04 of the City's

⁹ City of Cupertino. *General Plan Amendment, Housing Element Update, and Associated Rezoning Draft EIR* [4.5-18]. June 18, 2014.

Municipal Code. Therefore, the proposed project would not be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code, and a ***less-than-significant*** impact would occur.

- 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 wastewater disposal systems.

VII. GREENHOUSE GAS EMISSIONS.

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

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

Implementation of the proposed project would cumulatively contribute to increases of GHG emissions. Estimated GHG emissions attributable to future development would be primarily associated with increases of carbon dioxide (CO₂) and, to a lesser extent, other GHG pollutants, such as methane (CH₄) and nitrous oxide (N₂O) associated with area sources, mobile sources or vehicles, utilities (electricity and natural gas), water usage, wastewater generation, and the generation of solid waste. The primary source of GHG emissions for the project would be mobile source emissions. The common unit of measurement for GHG is expressed in terms of annual metric tons of CO₂ 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 (SB 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 of the City's Climate Action Plan (CAP), as well as applicable BAAQMD thresholds related to GHG emissions, is provided below.

Climate Action Plan

As a means of achieving the statewide GHG emissions reduction goals, the City has adopted a CAP. The targets are consistent with statewide goals. In addition, the CAP includes a number of reduction measures intended to be implemented by the City in order to accomplish the reduction goals. The emissions reduction strategies developed by the City follows the BAAQMD's CEQA Guidelines and the corresponding criteria for a Qualified Greenhouse Gas Emissions Reduction Program as defined by the BAAQMD. Because the provisions included in the CAP mirror the elements required per Section 15.183.5 of the CEQA Guidelines, the CAP is consistent with existing State regulations related to GHG emissions, as well as BAAQMD thresholds of significance. It should be noted that a quantitative threshold for GHG emissions for individual development projects has not been established by the City or set forth in the CAP.

The GHG inventory contained in the City's CAP was derived based on the land use designations and associated densities defined in the City's General Plan. The proposed project would be consistent with the project site's existing General Plan land use designation, and would not modify the type of use previously anticipated for the site by the City. It should be noted that the project would result in a slight increase in development intensity relative to existing site uses; however, associated increases in GHG emissions related to such would not be substantial.

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_{2e}/yr. BAAQMD's approach to developing a threshold of significance for GHG emissions is to identify the emissions level for which a project would not be expected to substantially conflict with existing California legislation adopted to reduce statewide GHG emissions needed to move towards climate stabilization. If a project would generate GHG emissions above the threshold level, the project would be considered to generate significant GHG emissions and conflict with applicable GHG regulations.

The proposed project's estimated construction and operational GHG emissions were quantified using CalEEMod, using 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 CO₂ intensity factor within the model was adjusted to reflect the Pacific Gas & Electric Company's anticipated progress towards statewide renewable portfolio standard goals. All CalEEMod results are included as an appendix to this IS/MND.

Based on the results of the modeling, the project would result in total construction emissions of approximately 78.99 MTCO_{2e}/yr. While neither the City nor BAAQMD has established GHG emissions thresholds for construction, construction emissions associated with the proposed project would be far below the BAAQMD's adopted operational threshold of 1,100 MTCO_{2e}/yr. Construction-related GHG emissions are a one-time

release and are, therefore, not typically expected to generate a significant contribution to global climate change, as global climate change is inherently a cumulative effect that occurs over a long period of time. Furthermore, construction activity associated with the proposed project would occur over a short duration and be limited in scope.

The project's estimated operational emissions are summarized in Table 4 below. As shown in the table, the proposed project would result in operational GHG emissions well below the 1,100 MTCO_{2e}/yr threshold. Therefore, the proposed project would not result in operational impacts related to GHG emissions.

Table 4	
Project Operational GHG Emissions	
Emission Source	Annual GHG Emissions (MTCO_{2e}/yr)
Area	0.36
Energy	7.53
Mobile	18.84
Solid Waste	1.27
Water	0.36
TOTAL ANNUAL GHG EMISSIONS	28.36
<i>Source: CalEEMod, November 2017.</i>	

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. As such, 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. Therefore, impacts would be considered *less than significant*.

VIII. HAZARDS AND HAZARDOUS MATERIALS.

Would the project:

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
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?	<input type="checkbox"/>	✗	<input type="checkbox"/>	<input type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

Discussion

- a. Residential land uses are not typically associated with the routine transport, use, disposal, or generation of substantial amounts of hazardous materials. Future residents may use common household cleaning products, fertilizers, and herbicides on-site, any of which could contain potentially hazardous chemicals; however, such products would be expected to be used in accordance with label instructions. Due to the regulations governing use of such products and the amount that would be used on the site, routine use of such products would not represent a substantial risk to public health or the environment. Therefore, the project would not create a significant hazard to the public or the environment through the

routine transport, use, or disposal of hazardous materials, and a *less-than-significant* impact would occur.

- b. The following discussion includes an analysis of hazardous and toxic materials that could be used on the proposed project site during construction activities, as well as existing hazardous materials known to be present on the site.

Construction Equipment

Construction activities associated with the proposed project would involve the use of heavy equipment, which would contain fuels and oils, and various other products such as concrete, paints, and adhesives. Small quantities of potentially toxic substances (e.g., petroleum and other chemicals used to operate and maintain construction equipment) would be used at the project site and transported to and from the site during construction. However, the project contractor would be required to comply with all California Health and Safety Codes and local City and County ordinances regulating the handling, storage, and transportation of hazardous and toxic materials. Compliance with such regulations would ensure that the proposed project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment during construction activities, particularly associated with construction equipment.

Existing Soil Contamination

A Phase I ESA was prepared for the proposed project by PIERS Environmental Services in July 2017.¹⁰ The Phase I ESA did not reveal evidence of Recognized Environmental Conditions (RECs), Historical RECs (HRECs), or Controlled RECs (CRECs). As discussed previously, the proposed project site has historically been used for agricultural purposes, particularly as an orchard. As such, pesticides and herbicides may have been used on the site. To comply with the City of Cupertino Planning Department requirements, and to investigate any residual effects of the former use of the project site as an orchard, a Limited Phase II Subsurface Investigation (Phase II) was prepared for the proposed project by PIERS Environmental Services.¹¹ As part of the Phase II, and in accordance with DTSC guidelines for sampling for agricultural chemicals, four soil samples were collected on-site on August 10, 2017 and analyzed for organochlorine pesticides (including, but not limited to, chlordane, a-Chlordane, g-Chlordane, p, p-DDD, p, p-DDE, p, p-DDT, dieldrin, and heptachlor), arsenic, and lead. The soil samples were located in future landscape areas, as the landscape areas would not be covered by impervious surfaces and, as a result, exposure to soil contaminants in such areas could occur. Concentrations of organochlorides pesticides, arsenic, and lead were compared to the applicable Environmental Screening Levels (ESLs), which are the concentrations of contaminants in soils and groundwater established by the Regional Water Quality Control Board (RWQCB) used to determine the

¹⁰ PIERS Environmental Services. *Phase I Environmental Site Assessment, 22561 Alcalde Road, Cupertino, California 95014*. July 17, 2017.

¹¹ PIERS Environmental Services. *Report of Limited Phase II Subsurface Investigation, 22561 Alcalde Road, Cupertino, California 95014*. August 19, 2017.

relative risks to human health and the environment. Generally, the presence of a chemical in soil or groundwater at concentrations below the corresponding ESL can be assumed to not pose a significant threat to human health or the environment. The ESLs for soil differentiate between residential and commercial usage, although in some cases the values are the same.

The only organochlorine pesticide detected above the residential ESL of 0.48 parts per million (ppm), was chlordane, which was detected in two soil samples (S1 and S2) at concentrations ranging up to 2.3 ppm at a depth of 0.4 feet.¹² Although arsenic was detected in all four soil samples at concentrations ranging between 1.2 ppm and 5.4 ppm, which exceeds the residential ESL of 0.067 ppm, the concentrations are within the range of naturally-occurring background concentrations (0.6 ppm to 11 ppm) that are typical for Bay Area soils. Lead was detected in all four soil samples at concentrations ranging up to 15 ppm, which is below the residential ESL of 80 ppm, and in the range of, or below, naturally-occurring background concentrations. In order to better characterize the vertical extent of the soil contamination, PIERS Environmental Services conducted further soil sampling and analysis at the same sample points at a depth of 0.5 feet below grade. According to the addendum prepared by PIERS Environmental Services on January 8, 2018, the results of the additional soil sampling determined that the concentration for all contaminants was below the relative ESL at a depth of 0.5 feet (or six inches).

While the reported chlordane levels in the two samples are above the residential ESLs, they are below the construction worker ESL of 14 mg/kg, thereby alleviating short duration construction worker exposure concerns. However, based on the above, future occupants could be exposed to soil contaminants. Therefore, the proposed project could 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, particularly related to existing soil contamination at the site.

Asbestos-Containing Materials and Lead-Based Paint

Asbestos is the name for a group of naturally occurring silicate minerals that are considered to be “fibrous” and, through processing, can be separated into smaller and smaller fibers. The fibers are strong, durable, chemical resistant, and resistant to heat and fire. They are also long, thin, and flexible, such that they can be woven into cloth. Because of the above qualities, asbestos was considered an ideal product and has been used in thousands of consumer, industrial, maritime, automotive, scientific, and building products. However, later discoveries found that, when inhaled, the material caused serious illness.

For buildings constructed prior to 1980, the Code of Federal Regulations (29 CFR 1926.1101) states that all thermal system insulation (boiler insulation, pipe lagging, and related materials) and surface materials must be designated as “presumed asbestos-containing material” unless proven otherwise through sampling in accordance with the standards of the Asbestos Hazard Emergency Response Act. Because the existing residence

¹² PIERS Environmental Services. *Addendum to Report of Subsurface Investigation and Transmittal of Additional Results*, 22561 Alcalde Road, Cupertino, California. January 8, 2018.

was built prior to 1980, the potential exists that asbestos-containing materials were used in the construction of the on-site residence.

Lead-based paint (LBP) is defined by federal guidelines as any paint, varnish, stain, or other applied coating that has one milligram of lead per square centimeter or greater. Lead is a highly toxic material that may cause a range of serious illnesses, and in some cases death. In buildings constructed after 1978, the presence of LBP is unlikely. Structures built prior to 1978, and especially prior to the 1960s, are expected to contain LBP. As previously mentioned, the existing residence on the property was constructed in 1962, before the phase-out of LBPs. Therefore, the potential exists that LBPs are present in the on-site residence.

Based on the age of the existing on-site residence, asbestos-containing materials and LBP are presumed to be present. The proposed project would include demolition of all on-site structures. Therefore, without implementation of the appropriate safety measures, the proposed project could potentially expose construction workers during demolition activities to LBP and asbestos-containing materials.

Conclusion

Based on the above, development of the proposed project could 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, particularly associated with contaminated soils, asbestos-containing materials, and LBPs. Therefore, a *potentially significant* impact would occur.

Mitigation Measure(s)

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

VIII-1. Prior to issuance of any grading permits, the following measures shall be reflected on the project grading and foundation plans, subject to review and approval by the City Engineer:

- Six inches of soil shall be removed within the proposed landscape areas along the northern and western boundaries of the project site. The aforementioned landscape areas shall subsequently be capped with a minimum of 0.5 feet of clean imported fill.*
- The top six inches of soils removed within the aforementioned landscape areas shall be off-hauled by a licensed hazardous waste contractor (Class A) and contractor personnel that have completed 40-hour OSHA hazardous training, and shall be disposed of appropriately in accordance with applicable federal, State, and local regulations associated with hazardous waste.*

The project applicant shall provide proof of implementation of the above measures to the Community Development Department.

VIII-2. *After demolition and removal of on-site structures and hardscapes, but prior to initiation of grading, the applicant shall conduct additional soil sampling within the previously inaccessible on-site areas to determine if the underlying soils contain contaminants in excess of the applicable Environmental Screening Levels (ESLs) set by the Regional Water Quality Control Board. The results of soil sampling shall be submitted to the Community Development Department prior to initiation of grading. If contaminants are not detected above applicable ESLs, then further mitigation is not required. If contaminants are detected above the applicable ESLs, then the soils shall be remediated by off-hauling to a licensed landfill facility.*

VIII-3. *Prior to issuance of a demolition permit for any on-site structures, the project applicant shall consult with certified Asbestos and/or Lead Risk Assessors to complete and submit for review to the Community Development Department an asbestos and lead survey. If asbestos-containing materials or lead-containing materials are not discovered during the survey, further mitigation related to asbestos-containing materials or lead containing materials shall not be required. If asbestos-containing materials and/or lead-containing materials are discovered by the survey, the project applicant shall prepare a work plan to demonstrate how the on-site asbestos-containing materials and/or lead-containing materials shall be removed in accordance with current California Occupational Health and Safety (Cal-OSHA) Administration regulations and disposed of in accordance with all CalEPA regulations, prior to the demolition and/or removal of the on-site structures. The plan shall include the requirement that work shall be conducted by a Cal-OSHA registered asbestos and lead abatement contractor in accordance with Title 8 CCR 1529 and Title 8 CCR 1532.1 regarding asbestos and lead training, engineering controls, and certifications. The applicant shall submit the work plan to the Community Development Department for review and approval. Materials containing more than one (1) percent asbestos that is friable are also subject to BAAQMD regulations. Removal of materials containing more than one (1) percent friable asbestos shall be completed in accordance with BAAQMD Section 11-2-303.*

- c. The proposed project would not be located within one-quarter mile of a school. Therefore, the project would have ***no impact*** related to hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

- d. The proposed project would not be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.¹³ Therefore, the project would not create a significant hazard to the public or the environment related to such, and ***no impact*** would occur.
- e,f. The nearest airport to the project site is the San Jose International Airport, located approximately 8.2 miles northeast of the site. As such, the proposed project site is not located within two miles of any public airports or private airstrips and does not fall within an airport land use plan area. Therefore, ***no impact*** related to a safety hazard for people residing or working in the project area would occur related to such.
- g. The City of Cupertino Office of Emergency Services is responsible for coordinating agency response to disasters or other large-scale emergencies in the City of Cupertino, with assistance from the Santa Clara County Office of Emergency Services and the Santa Clara County Fire Department (SCCFD). The Cupertino Emergency Operations Plan establishes policy direction for emergency planning, mitigation, response, and recovery activities within the City.¹⁴

Implementation of the proposed project would include widening of the Alcalde Road right-of-way by ten feet at the widest point (an approximately 370-square-foot area) along the project frontage, however, such modifications would not physically interfere with the Emergency Operations Plan, particularly with identified emergency routes. Furthermore, the proposed project would not include land uses or operations that could impair implementation of the plan. Therefore, the proposed project would not interfere with an emergency evacuation or response plan, and a ***less-than-significant*** impact would occur.

- h. According to the California Department of Forestry and Fire Protection (CAL FIRE) Fire and Resource Assessment Program, the proposed project site is not located within a Very High Fire Hazard Severity Zone.¹⁵ In addition, the site is currently developed, surrounded by existing development, and is not located adjacent to wildlands. Therefore, the proposed project would not expose people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands, and a ***less-than-significant*** impact would occur.

¹³ California Department of Toxic Substances Control. *Hazardous Waste and Substances Site List*. Available at: http://www.dtsc.ca.gov/SiteCleanup/Cortese_List.cfm. Accessed March 2017.

¹⁴ City of Cupertino. *Emergency Operations Plan*. September 2005.

¹⁵ California Department of Forestry and Fire Protection. *Santa Clara County, Very High Fire Hazard Severity Zones in LRA*. October 8, 2008.

IX. HYDROLOGY AND WATER QUALITY. <i>Would the project:</i>		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?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
b.	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
c.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
f.	Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
h.	Place within a 100-year floodplain structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
j.	Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗

Discussion

- a,f. The following section describes the project's consistency with applicable water quality standards and waste discharge requirements during construction and operation.

Construction

The proposed project site is currently developed with a residential use. As such, the site contains a substantial amount of impervious areas. Nonetheless, during the early stages of construction activities, topsoil would be exposed due to grading of the site. After grading and prior to overlaying the ground surface with impervious surfaces and structures, the potential exists for wind and water erosion to discharge sediment and/or urban pollutants into stormwater runoff, which could adversely affect water quality downstream.

The State Water Resources Control Board (SWRCB) regulates stormwater discharges associated with construction activities where clearing, grading, or excavation results in a land disturbance of one or more acres. The project site is 19,562 square feet (0.45-acre), and, thus, construction activities would not be regulated by the SWRCB. However, the City's Municipal Code requires applicants to provide and comply with an Interim Erosion and Sediment Control Plan (Interim Plan). The Interim Plan shall show the location of erosion control measures and erosion control planting shall be shown on the site map/grading plan. The applicant shall provide the following information with respect to conditions existing on the site during land-disturbing or filling activities or stockpiling of soil:

1. A delineation and brief description of the measures to be undertaken to retain sediment on the site, including, but not limited to, the designs and specifications or berms and sediment detention basins, and a schedule for their maintenance and upkeep;
2. A delineation and brief description of the surface runoff and erosion control measures to be implemented, including, but not limited, to types and methods of applying mulches, and designs and specifications for diverters, dikes and drains, and a schedule for their maintenance and upkeep;
3. A delineation and brief description of the vegetative measures to be undertaken, including, but not limited to, seeding methods, and type, location and extent of preexisting and undisturbed vegetation types, and a schedule for maintenance and upkeep.

Because the project would comply with the City's interim erosion control requirements, the project would not violate any water quality standards or waste discharge requirements, or otherwise degrade water quality, during construction.

Operation

The proposed residential use would not involve operations typically associated with the generation or discharge of polluted water. Thus, typical operations on the project site would not violate any water quality standards or waste discharge requirements, nor degrade water quality. However, the potential for urban runoff would be increased with the addition of impervious surfaces on the site, which could contain pollutants if the runoff comes into contact with vehicle fluids on parking surfaces and/or landscape fertilizers and herbicides prior to reaching downstream waters.

As of December 1, 2012, detached single-family homes that create or replace 2,500 square feet or more of impervious surface are required by the City of Cupertino to install one or more of the following design measures:

- Direct roof runoff onto vegetated areas (standard condition of approval, unless infeasible);
- Direct roof runoff into cisterns or rain barrels for reuse;
- Direct runoff from sidewalks, walkways, and/or patios onto vegetated areas;
- Direct runoff from driveways and/or uncovered parking lots onto vegetated areas;
- Construct sidewalks, walkways and/or patios with permeable surface; or
- Construct bike lanes, driveways and or uncovered parking lots with permeable surfaces.

As discussed previously, the proposed project would include a series of downspouts and storm drains that capture runoff created by impervious areas on the project site. Runoff from the downspouts would enter a six-inch perforated pipe continuing into a bubbler drain system that would collect and route the water onto vegetated areas in the front yards of the proposed residences. The proposed drainage system would satisfy City requirements by routing on-site runoff through vegetated areas prior to entering the City's storm drain system. Therefore, during operation, the project would comply with all relevant water quality standards and waste discharge requirements, and, thus, would not degrade water quality during operation.

Conclusion

Based on the above, the project would comply with all applicable water quality and waste discharge regulations during construction and operation, and would not involve uses associated with the generation or discharge of polluted water. Therefore, a ***less-than-significant*** impact would occur related to a violation of water quality standards or waste discharge requirements or degradation of water quality.

- b. As discussed previously, the project site is currently developed with an existing residence. The proposed project site would not substantially increase demand for water supplies associated with the site, including groundwater, and the proposed on-site drainage system would allow for stormwater to percolate into the underlying soils, contributing to the recharge of groundwater. Therefore, the proposed project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge, and a ***less-than-significant*** impact would occur.
- c-e. The proposed project site is currently developed with an existing residence and other impervious surfaces such as a driveway, a concrete patio, and shed. As such, development of the proposed project would not result in a substantial increase in impervious surfaces or runoff from what currently exists on-site. In addition, as discussed above, the project would include a drainage system that would manage all on-site runoff without directly connecting to the City's existing stormwater drainage system. Runoff entering the perforated drainage

pipes and the bubbler drain system would be able to infiltrate the soil and erosion, siltation, and/or flooding would not occur.

In conclusion, 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. Consequently, the proposed project would result in a ***less-than-significant*** impact related to such.

- g-i. According to the City's General Plan,¹⁶ as well as the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Number 06085C0204H,¹⁷ the proposed project site is located in Zone X, which is an area of minimal flood hazard, outside of the 100-year floodplain. As a result, the project would not place housing or structures within the 100-year floodplain, nor 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. Therefore, ***no impact*** would result.
- j. Tsunamis are defined as sea waves created by undersea fault movement, whereas a seiche is a long-wavelength, large-scale wave action set up in a closed body of water such as a lake or reservoir. Tsunamis typically affect coastlines and areas up to one-quarter mile inland. The project area is located over 20 miles from the Pacific Ocean. Due to the project's distance from the coast, the project site would not be exposed to flooding risks associated with tsunamis. Seiches do not pose a risk to the proposed project, as the project site is not located in close proximity to any large closed bodies of water. Mudflows typically occur on steep, unstable slopes. Given that the proposed project site is relatively flat and not located on a slope, mudflows would not pose an issue. Based on the above, ***no impact*** would occur related to inundation by seiche, tsunami, or mudflow.

¹⁶ City of Cupertino. *General Plan: Community Vision 2015 – 2040* [pg. E-5]. Adopted October 20, 2015.

¹⁷ Federal Emergency Management Agency. *FEMA's National Flood Hazard Layer (Official), Panel #06085C0208H*. Available at: <http://fema.maps.arcgis.com/home/webmap/viewer.html?webmap=cbe088e7c8704464aa0fc34eb99e7f30&extent=-122.05675800688134,37.31906767684711,-122.0534481609565,37.32047549983092>. Accessed October 2017.

X. LAND USE AND PLANNING. <i>Would the project:</i>	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
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 an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
c. Conflict with any applicable habitat conservation plan or natural communities conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗

Discussion

- a. A project risks dividing an established community if the project would introduce infrastructure or alter land use so as to change the land use conditions in the surrounding community, or isolate an existing land use. The proposed project site currently contains a single-family residence, which would be demolished as part of the proposed project. Given that the proposed project would include redevelopment of the site with two new single-family residences, the proposed project would not alter the land use of the site. Accordingly, the proposed project would not change the land use conditions in the area or isolate an existing land use. In addition, the project would be consistent with the site's existing zoning and General Plan land use designations. As such, the proposed project would not physically divide an established community and a ***less-than-significant*** impact would occur.
- b. The City of Cupertino General Plan designates the 19,562-square-foot site as Low/Medium Density (5-10 du/ac), and the site is currently zoned Single-Family Residential (R1-7.5). The proposed project would include division of the site into two approximately 8,892-square-foot lots and dedication of approximately 370 square feet of land to the City to allow for the widening of the Alcalde Road right-of-way along the project frontage. The two new lots would maintain the existing zoning and General Plan land use designations for the site, and would be consistent with Sections 19.28.050 and 19.28.060 of the City's Municipal Code relating to zoning districts and site development regulations. Therefore, 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 an environmental effect. As a result, the proposed project would result in a ***less-than-significant*** impact.
- c. As discussed previously, the project site is not located in an area with an approved HCP/NCCP. As a result, ***no impact*** would occur.

XI. MINERAL RESOURCES.

Would the project:

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less- Than- Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗

Discussion

- a,b. The proposed project site is located in a developed area and is currently developed with residential use. According to the City's General Plan, the project site is located in an area which is unsuitable for mineral extraction.¹⁸ Therefore, ***no impact*** to mineral resources would occur as a result of the proposed project.

¹⁸ City of Cupertino. *General Plan: Community Vision 2015 – 2040* [pg. ES-10]. Adopted October 20, 2015.

XII. NOISE.

Would 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?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

Discussion

- a,c. The existing noise environment of the site is currently defined by traffic noise on Alcalde Road. Such traffic is primarily generated by the surrounding residences in the project vicinity, as well as the occupied single-family residence currently located on the project site. The proposed project would include demolition of the existing on-site structures and redevelopment of the site with two single-family two-story residences. The project could be considered to result in a potentially significant impact if the net increase in traffic generated by the proposed project would cause an exceedance of noise levels established in the City's Municipal Code or an increase in the ambient noise levels in the project vicinity.

As discussed in the Transportation and Circulation section of this IS/MND, the proposed project would be anticipated to generate a total of 19 ADT. A total of 19 new vehicle trips spread over a 24-hour period would not result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. Furthermore, approximately half of the trips generated by the project would replace trips currently generated by the occupied single-family residence on the project site. Therefore, given that the proposed project would not substantially increase the number of vehicle trips associated with the project site, the project would not result in the exposure of persons to

or generation of noise levels in excess of standards established in City of Cupertino Municipal Code, or substantially increase ambient noise levels in the project vicinity above levels existing without the project. Thus, a *less-than-significant* impact would occur.

- b. Heavy-duty construction equipment would be used during construction of the proposed project (e.g., tractors, pavers, bulldozers). Such equipment has the potential to generate groundborne vibration. Levels of vibration include imperceptible vibrations at low levels, low rumbling and minor vibration at moderate levels, and structural or architectural damage at high levels. For structural damage, the California Department of Transportation (Caltrans) uses a vibration limit of 0.5 inches per second, peak particle velocity (in/sec, PPV) for buildings structurally sound and designed to modern engineering standards, and 0.2 in/sec PPV for buildings that are found to be structurally sound but where structural damage is a major concern. The threshold of 0.2 in/sec PPV is also used by Caltrans as the threshold for human annoyance caused by vibration. Although all surrounding structures are assumed to be structurally sound, the 0.2 in/sec PPV threshold offers a conservative value with regard to structural damage and is used as the threshold of significance for the analysis within this IS/MND.

The primary vibration-generating activities associated with the project would occur during demolition of the existing on-site structures, construction of the two proposed single-family residences, and widening of the Alcalde Road right-of-way. Table 5 below presents typical vibration levels that could be expected from construction equipment at a distance of 25 feet.

Table 5	
Vibration Source Levels for Construction Equipment	
Equipment	PPV at 25 ft (in/sec)
Large Bulldozer	0.089
Caisson drilling	0.089
Loaded trucks	0.076
Jackhammer	0.035
Small bulldozer	0.003
<i>Source: Caltrans, Transportation and Construction Vibration Guidance Manual, September 2013.</i>	

The most significant source of ground-borne vibrations during project construction would be the use of large bulldozers, which, as shown above, would generate vibrations of approximately 0.089 in/sec PPV at a distance of 25 feet.¹⁹ The nearest buildings relative to the proposed project site are the existing single-family residences located to the north, east, and west of the site. The residences are situated approximately 15 feet at the closest point from the nearest proposed construction areas. Using the maximum vibration level anticipated during construction of 0.089 in/sec PPV at 25 feet and adjusting for a distance of 15 feet,²⁰ the maximum vibration levels anticipated at the nearest residences would be approximately 0.16 in/sec PPV during construction activities associated with the project,

¹⁹ California Department of Transportation. *Transportation and Construction Vibration, Guidance Manual*. September 2013.

²⁰ California Department of Transportation. *Transportation and Construction Vibration, Guidance Manual* [Equation 12, pg. 37]. September 2013.

which would be below the applicable 0.2 in/sec PPV threshold. As such, groundborne vibrations associated with development on the project site would not damage any existing buildings. Additionally, construction activities would be temporary in nature and would be limited to normal daytime working hours in accordance with Section 10.48.053 of the City's Municipal Code. 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 demolition of the existing on-site structures, construction of the proposed residences, and widening of the Alcalde Road right-of-way, noise from such activities would temporarily add to the noise environment in the project vicinity. Noise would also be generated during the construction phase by truck traffic associated with transport of heavy materials and equipment to and from the project site. However, per Section 10.48.053 of the City's Municipal Code, grading, construction, and demolition activities are permitted to exceed the City's established noise limits during daytime hours provided that any piece of equipment involved in such activities has high-quality noise mufflers and abatement devices installed, is in good condition, and the activities meet certain established criteria. Compliance with the Municipal Code requirements would be verified as part of the City's standard conditions of approval.

Furthermore, noise associated with construction activities would be temporary, would occur intermittently throughout implementation of the proposed project, and would occur on a relatively small scale. Thus, while demolition and construction activities associated with the project could result in temporary increases in noise levels at nearby noise-sensitive receptors, such increases would not be substantial, would be minimized through compliance with the City's Municipal Code, and would be typical of residential construction activities. Therefore, a *less-than-significant* impact would occur.

- e,f. The project site is located approximately 8.2 miles southwest of the nearest airport, which is the San Jose International Airport. Given the distance between the airport and the project site, noise levels resulting from aircraft traffic at the nearest airport would be negligible at the proposed project site. Therefore, a *less-than-significant* impact would occur.

XIII. POPULATION AND HOUSING. <i>Would the project:</i>	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)?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

Discussion

- a. The proposed project would include the demolition of the existing on-site residence and the construction of two new single-family homes. The increase of one home would not result in a substantial increase in population, and, thus, the project would not be considered to induce substantial population growth through the construction of new homes. In addition, the project would be consistent with the existing zoning and General Plan land use designations for the site. Consequently, a ***less-than-significant*** impact would occur with regard to the project inducing substantial population growth.
- b,c. The proposed project currently contains a single-family residence. The on-site structure would be demolished as part of the proposed project, and the site would be redeveloped with two new single-family residences. Given that the project would provide new housing to replace the existing residence, the proposed project would not displace a substantial number of existing housing or people and would not necessitate the construction of replacement housing elsewhere. Therefore, a ***less-than-significant*** impact would occur.

XIV. PUBLIC SERVICES.

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less- Than- Significant Impact	No Impact
a. Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	✖	<input type="checkbox"/>
b. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	✖	<input type="checkbox"/>
c. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	✖	<input type="checkbox"/>
d. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	✖	<input type="checkbox"/>
e. Other Public Facilities?	<input type="checkbox"/>	<input type="checkbox"/>	✖	<input type="checkbox"/>

Discussion

- a. Fire protection services to the project area are provided by the Santa Clara County Fire Department (SCCFD), which serves Santa Clara County and the communities of Campbell, Cupertino, Los Altos, Los Altos Hills, Los Gatos, Monte Sereno, and Saratoga. The SCCFD operates 17 fire stations; the Cupertino Fire Station, located at 20215 Stevens Creek Boulevard, currently serves the project site. The SCCFD would continue to provide service following construction of the proposed project. Given that the proposed project would be consistent with the existing land uses on the site and the General Plan land use designation for the site, provision of fire protection services to the project site has been previously anticipated by the City. In addition, demand for fire protection services would not substantially increase, as the site is currently developed with a residential use.

Per Section 16.40.060 of the City's Municipal Code, the proposed project would be required to pay applicable fire protection fees to the SCCFD. In addition, the proposed residential buildings would be constructed in accordance with the fire protection requirements of the 2016 California Fire Code, which contain provisions to minimize fire hazard risks. Therefore, the proposed project would have a **less-than-significant** impact related to the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts.

- b. The City of Cupertino contracts with the Santa Clara County Sheriff's Office (Sheriff's Office) and the West Valley Patrol Division for police protection services. The West Valley Patrol Division is headquartered at the Westside Sheriff's Substation at 1601 South De Anza Boulevard in Cupertino. Given that the proposed project site is already developed with a residential use and provided with police protection services, and the project would be consistent with the City's General Plan land use designation, the project would not substantially increase the demand for police protection services at the site from what currently occurs or what has been anticipated by the City for the site. Therefore, the proposed project would have a **less-than-significant** impact related to the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts.

- c. Public schools in the City of Cupertino are managed by the Cupertino Union School District (CUSD) and the Fremont Union High School District (FUHSD). The proposed project would be required to pay the school impact fees specified in the City's General Plan.²¹ As noted in the General Plan, in accordance with Senate Bill 50, school impact mitigation fees are presumed to fully mitigate any school impacts associated with development. Because the project applicant would be required to pay the applicable school impact fees, the proposed project would result in a ***less-than-significant*** impact regarding an increase in demand for schools.
- d,e. The City of Cupertino assesses park maintenance fees for new residential development based on the density of the proposed development. Given that the proposed project would include the construction of single-family housing, the project applicant would be required to pay the appropriate park maintenance fee to the City. Pursuant to Section 14.05.060 of the City's Municipal Code, the final amount of the fee would be determined by the Director of Public Works. The in-lieu fees would fund improvements to and expansion of park facilities within the City. Therefore, the proposed project would have a ***less-than-significant*** impact related to the need for new or physically altered parks or other public facilities, the construction of which could cause significant environmental impacts.

²¹ City of Cupertino. *General Plan: Community Vision 2015 – 2040* [pg. B-83]. Adopted October 20, 2015.

XV. RECREATION.

Would the project:

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporate d	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?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>

Discussion

- a,b. The proposed project would include the construction of two new single-family homes. Residents of the proposed homes would likely use existing neighborhood, regional, parks and/or other recreational facilities. However, given that the project site is currently developed with a residential use, the proposed project would not be anticipated to substantially increase the demand for parks or other recreational facilities associated with the site. In addition, development of the site with residential uses has been previously anticipated in the City's General Plan. As discussed in Section XIV, Public Services, above, the project applicant would be required to pay applicable park maintenance fees to the City.

Therefore, the proposed project would not be expected to result in substantial physical deterioration of any existing neighborhood or regional parks or other recreational facilities, and would not require the construction or expansion of facilities which might have an adverse physical effect on the environment. Thus, a *less-than-significant* impact would occur.

XVI. TRANSPORTATION AND CIRCULATION.

Would 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?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
d. Substantially increase hazards due to design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
e. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

Discussion

- a,b. The Institute of Traffic Engineer's (ITE) *Trip Generation Handbook* was used to estimate weekday AM, PM, and daily trip generation forecasts for the proposed project based on the proposed single-family residential land use.²² As shown in Table 6 below, implementation of the proposed project would be expected to result in a total of 19 ADT, with two trips occurring during the AM peak hour and two trips occurring during the PM peak hour.

Table 6										
Weekday Project Trip Generation Rates and Estimates										
Units	Rate	Daily Trips	AM Peak Hour				PM Peak Hour			
			Rate	In	Out	Total	Rate	In	Out	Total
2	9.52	19	0.75	1	1	2	1.00	1	1	2
<i>Source: Institute of Transportation Engineers, 2012.</i>										

²² Institute of Transportation Engineers. *Trip Generation Handbook*, 9th Edition. September 2012.

According to the Santa Clara VTA, projects anticipated to generate fewer than 100 peak hour trips are not subject to review by the VTA.²³ Because the project would generate fewer than 100 peak hour trips, preparation of a traffic impact study for the proposed project is not required and the project is not subject to review by the VTA.

Because the project would result in less than 100 peak hour trips, and traffic associated with buildout of the site has been previously analyzed in the General Plan EIR, the project would not be expected to adversely impact levels of service at nearby signalized intersections or roadways. 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 the applicable CMP. Consequently, a *less-than-significant* impact would occur.

- c. The proposed project is not located near an airport and does not include any improvements to airports or a change in air traffic patterns. The nearest airport to the site is San Jose International Airport, located approximately 8.2 miles northeast of the site. Therefore, because the proposed project would not result in a change in air traffic patterns, including either an increase in air traffic levels or a change in location that results in substantial safety risks, *no impact* would occur.
- d,e. The proposed project would include widening of the Alcalde Road right-of-way by ten feet at the widest point (an approximately 370-square-foot area) along the project frontage, which would be dedicated to the City. Both of the proposed single-family residences would include paved driveways, which would connect to the widened roadway. Thus, adequate emergency access would be provided to the site. In addition, as previously mentioned, sidewalks do not currently exist along the frontage of the project site; however, implementation of the proposed project would include the addition of a sidewalk that would help to improve the currently discontinuous sidewalks along Alcalde Road. Thus, the addition of a sidewalk along the frontage of the project site would increase the pedestrian network in the project vicinity, and, thus, would increase access to the project site.

Residential uses associated with the proposed project would be considered consistent and compatible with the existing residential development in the surrounding area. Thus, implementation of the proposed project would not substantially increase hazards due to design features. In addition, emergency vehicles would have reasonable access to the proposed residences from the existing roadways and project frontage. Based on the above, the project would not substantially increase hazards due to design features or incompatible uses, and emergency access to the site would be adequate. Therefore, the project would result in a *less-than-significant* impact.

- f. The proposed project site is located in a residential subdivision. While bike lanes are not present on the surrounding roadway network, bicycle travel in the project vicinity remains a viable transportation option due to the low levels of traffic experienced on the neighborhood roadways. As noted above, the proposed project would include the provision of a sidewalk at the project frontage, which would improve the pedestrian network in the

²³ Santa Clara Valley Transportation Authority. 2013 *Congestion Management Program* [pg. 12]. October 2013.

area. Thus, the project would be consistent with Policy M-3.2 of the City's General Plan, which requires new development and redevelopment to increase pedestrian connectivity.

The nearest transit stop relative to the project site is located at the intersection of Stevens Creek Boulevard and South Foothill Boulevard, approximately less than half a mile north of the project site. Thus, residents of the proposed single-family homes would be provided with reasonable access to the City's public transportation system.

Given the presence of existing transit and pedestrian facilities, and incorporation of a new sidewalk along the project frontage, the project would result in a ***less-than-significant*** impact with respect to conflicts with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or with respect to degradation of such facilities.

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)?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
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.	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

Discussion

- a,b. As discussed in Section V, Cultural Resources, of this IS/MND, the proposed project site does not contain any existing permanent structures or any other known resources listed or eligible for listing in the CRHR, NRHP, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), and does not contain known resources that could be considered historic pursuant to the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. Furthermore, the potential for unrecorded Native American resources to exist within the project site is relatively low based on the highly-disturbed nature of the site, and Native American resources have not been identified within the vicinity of the project site. Given that the project would be required to comply with the City's standard conditions of approval regarding cultural resources, construction of the proposed project would not result in a substantial adverse change in the significance of a tribal cultural resource, and a *less-than-significant* impact to tribal cultural resources could occur.

XVIII. UTILITIES AND SERVICE SYSTEMS. <i>Would the project:</i>		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?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
d.	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
f.	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
g.	Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

Discussion

- a,b,e. Wastewater service at the proposed project site would be provided by the Cupertino Sanitary District (CSD). The proposed project would connect to the CSD's existing sanitary sewer system by way of connections to existing sewer lines in Alcalde Road. The CSD collection system directs wastewater to the San Jose/Santa Clara Water Pollution Control Plant (SJ/SCWPCP), a joint powers authority.

The project area is currently provided sewer services by the CSD, including the existing on-site residence. The proposed project would demolish the existing residence and construct two new single-family residences. The net increase of one residence on the project site would not substantially increase the demand for wastewater services associated with the site and would not affect the available capacity of the SJ/SCWPCP. Furthermore, wastewater generation associated with buildout of the project site has been anticipated by the City, as the project would be consistent with the existing General Plan land use designation of the site. In addition, the proposed project would involve typical household wastewater generation, which would not have the potential to exceed any wastewater

treatment requirements of the RWQCB. Based on the above, the proposed project would result in a *less-than-significant* impact related to wastewater.

- c. As discussed in further detail in Section IX, Hydrology and Water Quality, of this IS/MND, the proposed project would not include direct connections to the City's existing stormwater drainage facilities, and, thus, would not necessitate the expansion of such facilities. Rather, runoff from the downspouts would enter a new six-inch perforated pipe continuing into a bubbler drain system that would collect and route the water onto vegetated areas in the front yard areas of the proposed residences. Therefore, the proposed project would have a *less-than-significant* impact with respect to requiring or resulting in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- d. Water service to the proposed project site is currently provided under contract with San Jose Water. The proposed project would connect to existing water supply infrastructure located in Alcalde Road. The proposed project would demolish the existing on-site residence and construct two new single-family residences. The net increase of one residence on the project site would not substantially increase the demand for water supplies associated with the site. In addition, the proposed project would be consistent with the existing General Plan land use designation of the site, and, thus, the City has previously anticipated the demand for water supplies associated with buildout of the site. Therefore, sufficient water supplies would be available to serve the proposed project from existing entitlements and resources, and new or expanded entitlements would not be needed. In addition, the project would not necessitate the construction of new water supply facilities. Thus, a *less-than-significant* impact would occur.
- f,g. The City contracts with Recology South Bay (Recology) for solid waste collection services. All non-hazardous solid waste collected under the Recology franchise agreement is taken to Newby Island Sanitary Landfill for processing. Under the agreement recyclable materials also are handled by Recology. Of the 27,593 tons of solid waste disposed in 2012, 25,440 tons, or 92 percent was disposed of at the Newby Island Landfill. The Monterey Peninsula Landfill, the Guadalupe Sanitary Landfill and the Altamont Landfill and Resource Recovery Facility accepted the next highest amounts of waste from Cupertino, respectively receiving 1,260 tons (4.6 percent of total), 321 tons (1.2 percent) and 238 tons (0.9 percent) of all waste. Per the General Plan EIR, sufficient landfill capacity is available to serve buildout of the General Plan.

The proposed project site is currently developed with a residential use and is designated as Low/Medium Density Residential in the City's General Plan. The proposed project would demolish the existing on-site residence and construct two new single-family residences. The net increase of one residence on the project site would not substantially increase the solid waste generation associated with the site. In addition, the proposed project would be consistent with the General Plan land use designation for the site. As such, generation of solid waste associated with the project site has been previously anticipated by the City. Based on the above, the project would not increase solid waste generation such that the capacity of any landfills serving the City would be exceeded. In addition, construction and

any demolition debris associated with the project would be subject to Chapter 16.72 of the City's Municipal Code, which requires that a minimum of 60 percent of construction and demolition debris be diverted from a landfill. 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. Accordingly, a *less-than-significant* impact would occur.

XIX. 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?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

Discussion

- a. As described throughout this IS/MND, impacts related to special-status plants and cultural resources would be less than significant. In addition, potential impacts related to reducing the habitat for nesting migratory birds would be reduced to less-than-significant levels with implementation of the mitigation measures required by this IS/MND, as well as compliance with General Plan policies and all applicable sections of the Municipal Code. As such, development of the proposed project would not: 1) degrade the quality of the environment; 2) substantially reduce or impact the habitat of fish or wildlife species; 3) cause fish or wildlife populations to drop below self-sustaining levels; 4) threaten to eliminate a plant or animal community; 5) reduce the number or restrict the range of a rare or endangered plant or animal; or 6) eliminate important examples of the major periods of California history or prehistory. Therefore, a ***less-than-significant*** impact would occur.
- b. The proposed project in conjunction with other development within the City of Cupertino could incrementally contribute to cumulative impacts in the area. However, 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, as well as compliance with applicable General Plan policies and Municipal Code standards. In addition, the site has been anticipated by the City for residential development. Thus, buildout of the site with residential uses was considered in the cumulative analysis of buildout of the General Plan. When viewed in conjunction with other closely related past, present, or reasonably foreseeable future projects, development of the proposed project would not substantially

contribute to cumulative impacts in the City of Cupertino, and the project's cumulative impact would be *less than significant*.

- c. As described in this IS/MND, implementation of the proposed project could result in potential impacts related to existing soil contamination at the site. However, the proposed project would implement the project-specific mitigation measures within this IS/MND, as well as applicable General Plan policies, which would ensure that any potential direct or indirect effects to human beings would be reduced to less-than-significant levels. Therefore, the proposed project would have a *less-than-significant* impact.

APPENDIX

AIR QUALITY AND GHG MODELING RESULTS

Alcalde Road Lot Split - Bay Area AQMD Air District, Annual

Alcalde Road Lot Split

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	2.00	Dwelling Unit	0.45	3,600.00	6

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 (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

Demolition - Applicant provided

Vehicle Trips - Based on ITE rate (Single Family Homes, 210)

Alcalde Road Lot Split - Bay Area AQMD Air District, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	100.00
tblConstructionPhase	PhaseEndDate	11/21/2018	11/28/2018
tblConstructionPhase	PhaseEndDate	11/7/2018	11/14/2018
tblConstructionPhase	PhaseEndDate	11/14/2018	6/27/2018
tblConstructionPhase	PhaseStartDate	11/15/2018	7/12/2018
tblConstructionPhase	PhaseStartDate	6/21/2018	6/28/2018
tblConstructionPhase	PhaseStartDate	11/8/2018	6/21/2018
tblGrading	AcresOfGrading	0.50	0.45
tblGrading	MaterialExported	0.00	363.00
tblGrading	MaterialImported	0.00	130.00
tblLandUse	LotAcreage	0.65	0.45
tblProjectCharacteristics	CO2IntensityFactor	641.35	409.81
tblVehicleTrips	ST_TR	9.91	9.52
tblVehicleTrips	SU_TR	8.62	9.52

2.0 Emissions Summary

Alcalde Road Lot Split - Bay Area AQMD Air District, Annual

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.1046	0.7497	0.5547	8.7000e-004	5.5200e-003	0.0483	0.0538	1.3600e-003	0.0451	0.0465	0.0000	78.4962	78.4962	0.0197	0.0000	78.9878
Maximum	0.1046	0.7497	0.5547	8.7000e-004	5.5200e-003	0.0483	0.0538	1.3600e-003	0.0451	0.0465	0.0000	78.4962	78.4962	0.0197	0.0000	78.9878

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	0.1046	0.7497	0.5547	8.7000e-004	5.5200e-003	0.0483	0.0538	1.3600e-003	0.0451	0.0465	0.0000	78.4961	78.4961	0.0197	0.0000	78.9877
Maximum	0.1046	0.7497	0.5547	8.7000e-004	5.5200e-003	0.0483	0.0538	1.3600e-003	0.0451	0.0465	0.0000	78.4961	78.4961	0.0197	0.0000	78.9877

[illegible]

Alcalde Road Lot Split - Bay Area AQMD Air District, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-4-2018	9-3-2018	0.4626	0.4626
2	9-4-2018	9-30-2018	0.1440	0.1440
		Highest	0.4626	0.4626

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	0.0288	4.3000e-004	0.0321	4.0000e-005		2.5500e-003	2.5500e-003		2.5500e-003	2.5500e-003	0.2542	0.0867	0.3409	5.0000e-004	1.0000e-005	0.3578
Energy	4.6000e-004	3.9000e-003	1.6600e-003	2.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	7.4848	7.4848	3.0000e-004	1.3000e-004	7.5298
Mobile	6.0800e-003	0.0287	0.0686	2.1000e-004	0.0164	2.6000e-004	0.0166	4.4000e-003	2.5000e-004	4.6400e-003	0.0000	18.8212	18.8212	7.8000e-004	0.0000	18.8408
Waste						0.0000	0.0000		0.0000	0.0000	0.5115	0.0000	0.5115	0.0302	0.0000	1.2673
Water						0.0000	0.0000		0.0000	0.0000	0.0413	0.1845	0.2259	4.2600e-003	1.0000e-004	0.3630
Total	0.0354	0.0331	0.1023	2.7000e-004	0.0164	3.1300e-003	0.0195	4.4000e-003	3.1200e-003	7.5100e-003	0.8071	26.5772	27.3843	0.0361	2.4000e-004	28.3588

Alcalde Road Lot Split - Bay Area AQMD Air District, Annual

2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0288	4.3000e-004	0.0321	4.0000e-005		2.5500e-003	2.5500e-003		2.5500e-003	2.5500e-003	0.2542	0.0867	0.3409	5.0000e-004	1.0000e-005	0.3578
Energy	4.6000e-004	3.9000e-003	1.6600e-003	2.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	7.4848	7.4848	3.0000e-004	1.3000e-004	7.5298
Mobile	6.0800e-003	0.0287	0.0686	2.1000e-004	0.0164	2.6000e-004	0.0166	4.4000e-003	2.5000e-004	4.6400e-003	0.0000	18.8212	18.8212	7.8000e-004	0.0000	18.8408
Waste						0.0000	0.0000		0.0000	0.0000	0.5115	0.0000	0.5115	0.0302	0.0000	1.2673
Water						0.0000	0.0000		0.0000	0.0000	0.0413	0.1845	0.2259	4.2600e-003	1.0000e-004	0.3630
Total	0.0354	0.0331	0.1023	2.7000e-004	0.0164	3.1300e-003	0.0195	4.4000e-003	3.1200e-003	7.5100e-003	0.8071	26.5772	27.3843	0.0361	2.4000e-004	28.3588

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Alcalde Road Lot Split - Bay Area AQMD Air District, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/4/2018	6/15/2018	5	10	
2	Site Preparation	Site Preparation	6/16/2018	6/18/2018	5	1	
3	Grading	Grading	6/19/2018	6/20/2018	5	2	
4	Building Construction	Building Construction	6/28/2018	11/14/2018	5	100	
5	Paving	Paving	6/21/2018	6/27/2018	5	5	
6	Architectural Coating	Architectural Coating	7/12/2018	11/28/2018	5	100	

Acres of Grading (Site Preparation Phase): 0.45

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 7,290; Residential Outdoor: 2,430; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0
(Architectural Coating – sqft)

OffRoad Equipment

Alcalde Road Lot Split - Bay Area AQMD Air District, Annual

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
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
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
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	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
Demolition	4	10.00	0.00	23.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	62.00	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
Building Construction	5	1.00	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
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Alcalde Road Lot Split - Bay Area AQMD Air District, Annual

3.1 Mitigation Measures Construction**3.2 Demolition - 2018****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.5400e-003	0.0000	2.5400e-003	3.8000e-004	0.0000	3.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.3200e-003	0.0472	0.0389	6.0000e-005		3.1100e-003	3.1100e-003		2.9700e-003	2.9700e-003	0.0000	5.3041	5.3041	1.0200e-003	0.0000	5.3297
Total	5.3200e-003	0.0472	0.0389	6.0000e-005	2.5400e-003	3.1100e-003	5.6500e-003	3.8000e-004	2.9700e-003	3.3500e-003	0.0000	5.3041	5.3041	1.0200e-003	0.0000	5.3297

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3.2 Demolition - 2018**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1000e-004	3.7900e-003	7.2000e-004	1.0000e-005	1.9000e-004	2.0000e-005	2.1000e-004	5.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.8999	0.8999	5.0000e-005	0.0000	0.9011
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	3.1000e-004	3.9400e-003	2.2600e-003	1.0000e-005	5.9000e-004	2.0000e-005	6.1000e-004	1.6000e-004	1.0000e-005	1.8000e-004	0.0000	1.2684	1.2684	6.0000e-005	0.0000	1.2698

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.5400e-003	0.0000	2.5400e-003	3.8000e-004	0.0000	3.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.3200e-003	0.0472	0.0389	6.0000e-005		3.1100e-003	3.1100e-003		2.9700e-003	2.9700e-003	0.0000	5.3041	5.3041	1.0200e-003	0.0000	5.3296
Total	5.3200e-003	0.0472	0.0389	6.0000e-005	2.5400e-003	3.1100e-003	5.6500e-003	3.8000e-004	2.9700e-003	3.3500e-003	0.0000	5.3041	5.3041	1.0200e-003	0.0000	5.3296

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3.2 Demolition - 2018**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1000e-004	3.7900e-003	7.2000e-004	1.0000e-005	1.9000e-004	2.0000e-005	2.1000e-004	5.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.8999	0.8999	5.0000e-005	0.0000	0.9011
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	3.1000e-004	3.9400e-003	2.2600e-003	1.0000e-005	5.9000e-004	2.0000e-005	6.1000e-004	1.6000e-004	1.0000e-005	1.8000e-004	0.0000	1.2684	1.2684	6.0000e-005	0.0000	1.2698

3.3 Site Preparation - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9000e-004	4.8800e-003	2.1300e-003	0.0000		2.1000e-004	2.1000e-004		1.9000e-004	1.9000e-004	0.0000	0.4458	0.4458	1.4000e-004	0.0000	0.4492
Total	3.9000e-004	4.8800e-003	2.1300e-003	0.0000	2.7000e-004	2.1000e-004	4.8000e-004	3.0000e-005	1.9000e-004	2.2000e-004	0.0000	0.4458	0.4458	1.4000e-004	0.0000	0.4492

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3.3 Site Preparation - 2018**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-004	0.0102	1.9500e-003	3.0000e-005	5.2000e-004	4.0000e-005	5.6000e-004	1.4000e-004	4.0000e-005	1.8000e-004	0.0000	2.4259	2.4259	1.3000e-004	0.0000	2.4291
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-005	1.0000e-005	8.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0184	0.0184	0.0000	0.0000	0.0184
Total	3.1000e-004	0.0102	2.0300e-003	3.0000e-005	5.4000e-004	4.0000e-005	5.8000e-004	1.5000e-004	4.0000e-005	1.9000e-004	0.0000	2.4443	2.4443	1.3000e-004	0.0000	2.4475

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9000e-004	4.8800e-003	2.1300e-003	0.0000		2.1000e-004	2.1000e-004		1.9000e-004	1.9000e-004	0.0000	0.4458	0.4458	1.4000e-004	0.0000	0.4492
Total	3.9000e-004	4.8800e-003	2.1300e-003	0.0000	2.7000e-004	2.1000e-004	4.8000e-004	3.0000e-005	1.9000e-004	2.2000e-004	0.0000	0.4458	0.4458	1.4000e-004	0.0000	0.4492

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3.3 Site Preparation - 2018**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-004	0.0102	1.9500e-003	3.0000e-005	5.2000e-004	4.0000e-005	5.6000e-004	1.4000e-004	4.0000e-005	1.8000e-004	0.0000	2.4259	2.4259	1.3000e-004	0.0000	2.4291
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-005	1.0000e-005	8.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0184	0.0184	0.0000	0.0000	0.0184
Total	3.1000e-004	0.0102	2.0300e-003	3.0000e-005	5.4000e-004	4.0000e-005	5.8000e-004	1.5000e-004	4.0000e-005	1.9000e-004	0.0000	2.4443	2.4443	1.3000e-004	0.0000	2.4475

3.4 Grading - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0600e-003	9.4300e-003	7.7800e-003	1.0000e-005		6.2000e-004	6.2000e-004		5.9000e-004	5.9000e-004	0.0000	1.0608	1.0608	2.0000e-004	0.0000	1.0659
Total	1.0600e-003	9.4300e-003	7.7800e-003	1.0000e-005	7.5000e-004	6.2000e-004	1.3700e-003	4.1000e-004	5.9000e-004	1.0000e-003	0.0000	1.0608	1.0608	2.0000e-004	0.0000	1.0659

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3.4 Grading - 2018**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	3.0000e-005	3.1000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0737	0.0737	0.0000	0.0000	0.0737
Total	4.0000e-005	3.0000e-005	3.1000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0737	0.0737	0.0000	0.0000	0.0737

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0600e-003	9.4300e-003	7.7800e-003	1.0000e-005		6.2000e-004	6.2000e-004		5.9000e-004	5.9000e-004	0.0000	1.0608	1.0608	2.0000e-004	0.0000	1.0659
Total	1.0600e-003	9.4300e-003	7.7800e-003	1.0000e-005	7.5000e-004	6.2000e-004	1.3700e-003	4.1000e-004	5.9000e-004	1.0000e-003	0.0000	1.0608	1.0608	2.0000e-004	0.0000	1.0659

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3.4 Grading - 2018**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	3.0000e-005	3.1000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0737	0.0737	0.0000	0.0000	0.0737
Total	4.0000e-005	3.0000e-005	3.1000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0737	0.0737	0.0000	0.0000	0.0737

3.5 Building Construction - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0542	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

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3.5 Building Construction - 2018**Unmitigated Construction Off-Site**

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0542	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

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3.5 Building Construction - 2018**Mitigated Construction Off-Site**

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

3.6 Paving - 2018**Unmitigated Construction On-Site**

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

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3.6 Paving - 2018**Unmitigated Construction Off-Site**

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

Mitigated Construction On-Site

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

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3.6 Paving - 2018**Mitigated Construction Off-Site**

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

3.7 Architectural Coating - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0253					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	0.0403	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

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3.7 Architectural Coating - 2018**Unmitigated Construction Off-Site**

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0253					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	0.0403	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

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3.7 Architectural Coating - 2018**Mitigated Construction Off-Site**

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

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	6.0800e-003	0.0287	0.0686	2.1000e-004	0.0164	2.6000e-004	0.0166	4.4000e-003	2.5000e-004	4.6400e-003	0.0000	18.8212	18.8212	7.8000e-004	0.0000	18.8408
Unmitigated	6.0800e-003	0.0287	0.0686	2.1000e-004	0.0164	2.6000e-004	0.0166	4.4000e-003	2.5000e-004	4.6400e-003	0.0000	18.8212	18.8212	7.8000e-004	0.0000	18.8408

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	19.04	19.04	19.04	43,975	43,975
Total	19.04	19.04	19.04	43,975	43,975

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	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
Single Family Housing	0.570523	0.041853	0.194077	0.115893	0.018544	0.005373	0.016909	0.024079	0.002502	0.002562	0.005975	0.000872	0.000837

5.0 Energy Detail

Historical Energy Use: N

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5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2.9677	2.9677	2.1000e-004	4.0000e-005	2.9859
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2.9677	2.9677	2.1000e-004	4.0000e-005	2.9859
NaturalGas Mitigated	4.6000e-004	3.9000e-003	1.6600e-003	2.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	4.5171	4.5171	9.0000e-005	8.0000e-005	4.5440
NaturalGas Unmitigated	4.6000e-004	3.9000e-003	1.6600e-003	2.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	4.5171	4.5171	9.0000e-005	8.0000e-005	4.5440

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	84647.5	4.6000e-004	3.9000e-003	1.6600e-003	2.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	4.5171	4.5171	9.0000e-005	8.0000e-005	4.5440
Total		4.6000e-004	3.9000e-003	1.6600e-003	2.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	4.5171	4.5171	9.0000e-005	8.0000e-005	4.5440

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5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	84647.5	4.6000e-004	3.9000e-003	1.6600e-003	2.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	4.5171	4.5171	9.0000e-005	8.0000e-005	4.5440
Total		4.6000e-004	3.9000e-003	1.6600e-003	2.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	4.5171	4.5171	9.0000e-005	8.0000e-005	4.5440

5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	15965	2.9677	2.1000e-004	4.0000e-005	2.9859
Total		2.9677	2.1000e-004	4.0000e-005	2.9859

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5.3 Energy by Land Use - Electricity**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	15965	2.9677	2.1000e-004	4.0000e-005	2.9859
Total		2.9677	2.1000e-004	4.0000e-005	2.9859

6.0 Area Detail**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0288	4.3000e-004	0.0321	4.0000e-005		2.5500e-003	2.5500e-003		2.5500e-003	2.5500e-003	0.2542	0.0867	0.3409	5.0000e-004	1.0000e-005	0.3578
Unmitigated	0.0288	4.3000e-004	0.0321	4.0000e-005		2.5500e-003	2.5500e-003		2.5500e-003	2.5500e-003	0.2542	0.0867	0.3409	5.0000e-004	1.0000e-005	0.3578

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6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.5300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0141					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0118	2.6000e-004	0.0171	4.0000e-005		2.4700e-003	2.4700e-003		2.4700e-003	2.4700e-003	0.2542	0.0624	0.3166	4.8000e-004	1.0000e-005	0.3330
Landscaping	4.6000e-004	1.7000e-004	0.0149	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0243	0.0243	2.0000e-005	0.0000	0.0249
Total	0.0288	4.3000e-004	0.0321	4.0000e-005		2.5500e-003	2.5500e-003		2.5500e-003	2.5500e-003	0.2542	0.0867	0.3409	5.0000e-004	1.0000e-005	0.3578

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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	tons/yr										MT/yr					
Architectural Coating	2.5300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0141					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0118	2.6000e-004	0.0171	4.0000e-005		2.4700e-003	2.4700e-003		2.4700e-003	2.4700e-003	0.2542	0.0624	0.3166	4.8000e-004	1.0000e-005	0.3330
Landscaping	4.6000e-004	1.7000e-004	0.0149	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0243	0.0243	2.0000e-005	0.0000	0.0249
Total	0.0288	4.3000e-004	0.0321	4.0000e-005		2.5500e-003	2.5500e-003		2.5500e-003	2.5500e-003	0.2542	0.0867	0.3409	5.0000e-004	1.0000e-005	0.3578

7.0 Water Detail**7.1 Mitigation Measures Water**

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.2259	4.2600e-003	1.0000e-004	0.3630
Unmitigated	0.2259	4.2600e-003	1.0000e-004	0.3630

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.130308 / 0.0821507	0.2259	4.2600e-003	1.0000e-004	0.3630
Total		0.2259	4.2600e-003	1.0000e-004	0.3630

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7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.130308 / 0.0821507	0.2259	4.2600e-003	1.0000e-004	0.3630
Total		0.2259	4.2600e-003	1.0000e-004	0.3630

8.0 Waste Detail**8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.5115	0.0302	0.0000	1.2673
Unmitigated	0.5115	0.0302	0.0000	1.2673

Alcalde Road Lot Split - Bay Area AQMD Air District, Annual

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	2.52	0.5115	0.0302	0.0000	1.2673
Total		0.5115	0.0302	0.0000	1.2673

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	2.52	0.5115	0.0302	0.0000	1.2673
Total		0.5115	0.0302	0.0000	1.2673

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Alcalde Road Lot Split - 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
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Boilers

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

Equipment Type	Number
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11.0 Vegetation

Alcalde Road Lot Split - Bay Area AQMD Air District, Summer

Alcalde Road Lot Split

Bay Area AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	2.00	Dwelling Unit	0.45	3,600.00	6

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 (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

Demolition - Applicant provided

Vehicle Trips - Based on ITE rate (Single Family Homes, 210)

Alcalde Road Lot Split - Bay Area AQMD Air District, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	100.00
tblConstructionPhase	PhaseEndDate	11/21/2018	11/28/2018
tblConstructionPhase	PhaseEndDate	11/7/2018	11/14/2018
tblConstructionPhase	PhaseEndDate	11/14/2018	6/27/2018
tblConstructionPhase	PhaseStartDate	11/15/2018	7/12/2018
tblConstructionPhase	PhaseStartDate	6/21/2018	6/28/2018
tblConstructionPhase	PhaseStartDate	11/8/2018	6/21/2018
tblGrading	AcresOfGrading	0.50	0.45
tblGrading	MaterialExported	0.00	363.00
tblGrading	MaterialImported	0.00	130.00
tblLandUse	LotAcreage	0.65	0.45
tblProjectCharacteristics	CO2IntensityFactor	641.35	409.81
tblVehicleTrips	ST_TR	9.91	9.52
tblVehicleTrips	SU_TR	8.62	9.52

2.0 Emissions Summary

Alcalde Road Lot Split - Bay Area AQMD Air District, Summer

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	1.8945	29.7849	9.6389	0.0607	1.6571	0.8593	2.1559	0.4356	0.8026	1.0304	0.0000	6,411.0691	6,411.0691	0.5838	0.0000	6,425.6636
Maximum	1.8945	29.7849	9.6389	0.0607	1.6571	0.8593	2.1559	0.4356	0.8026	1.0304	0.0000	6,411.0691	6,411.0691	0.5838	0.0000	6,425.6636

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	1.8945	29.7849	9.6389	0.0607	1.6571	0.8593	2.1559	0.4356	0.8026	1.0304	0.0000	6,411.0691	6,411.0691	0.5838	0.0000	6,425.6636
Maximum	1.8945	29.7849	9.6389	0.0607	1.6571	0.8593	2.1559	0.4356	0.8026	1.0304	0.0000	6,411.0691	6,411.0691	0.5838	0.0000	6,425.6636

[illegible]

Alcalde Road Lot Split - 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/day										lb/day					
Area	2.1686	0.0418	2.8464	5.0600e-003		0.3800	0.3800		0.3800	0.3800	40.7567	12.6501	53.4067	0.0507	2.8800e-003	55.5309
Energy	2.5000e-003	0.0214	9.0900e-003	1.4000e-004		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003		27.2837	27.2837	5.2000e-004	5.0000e-004	27.4458
Mobile	0.0380	0.1524	0.3891	1.2000e-003	0.0935	1.4400e-003	0.0949	0.0250	1.3600e-003	0.0264		120.7671	120.7671	4.7800e-003		120.8866
Total	2.2091	0.2156	3.2446	6.4000e-003	0.0935	0.3831	0.4766	0.0250	0.3831	0.4081	40.7567	160.7008	201.4575	0.0560	3.3800e-003	203.8632

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.1686	0.0418	2.8464	5.0600e-003		0.3800	0.3800		0.3800	0.3800	40.7567	12.6501	53.4067	0.0507	2.8800e-003	55.5309
Energy	2.5000e-003	0.0214	9.0900e-003	1.4000e-004		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003		27.2837	27.2837	5.2000e-004	5.0000e-004	27.4458
Mobile	0.0380	0.1524	0.3891	1.2000e-003	0.0935	1.4400e-003	0.0949	0.0250	1.3600e-003	0.0264		120.7671	120.7671	4.7800e-003		120.8866
Total	2.2091	0.2156	3.2446	6.4000e-003	0.0935	0.3831	0.4766	0.0250	0.3831	0.4081	40.7567	160.7008	201.4575	0.0560	3.3800e-003	203.8632

Alcalde Road Lot Split - Bay Area AQMD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/4/2018	6/15/2018	5	10	
2	Site Preparation	Site Preparation	6/16/2018	6/18/2018	5	1	
3	Grading	Grading	6/19/2018	6/20/2018	5	2	
4	Building Construction	Building Construction	6/28/2018	11/14/2018	5	100	
5	Paving	Paving	6/21/2018	6/27/2018	5	5	
6	Architectural Coating	Architectural Coating	7/12/2018	11/28/2018	5	100	

Acres of Grading (Site Preparation Phase): 0.45

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 7,290; Residential Outdoor: 2,430; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0
(Architectural Coating – sqft)

OffRoad Equipment

Alcalde Road Lot Split - Bay Area AQMD Air District, Summer

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
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
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
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	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
Demolition	4	10.00	0.00	23.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	62.00	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
Building Construction	5	1.00	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
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Alcalde Road Lot Split - Bay Area AQMD Air District, Summer

3.1 Mitigation Measures Construction**3.2 Demolition - 2018****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5085	0.0000	0.5085	0.0770	0.0000	0.0770			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	0.5085	0.6228	1.1313	0.0770	0.5943	0.6713		1,169.350 2	1,169.350 2	0.2254		1,174.985 7

Alcalde Road Lot Split - Bay Area AQMD Air District, Summer

3.2 Demolition - 2018**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0218	0.7425	0.1396	1.8700e-003	0.0402	2.9800e-003	0.0432	0.0110	2.8600e-003	0.0139		199.7543	199.7543	0.0103		200.0107
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	0.0639	0.7697	0.4746	2.7500e-003	0.1223	3.5300e-003	0.1259	0.0328	3.3700e-003	0.0362		287.1106	287.1106	0.0128		287.4309

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5085	0.0000	0.5085	0.0770	0.0000	0.0770			0.0000			0.0000
Off-Road	1.0643	9.4295	7.7762	0.0120		0.6228	0.6228		0.5943	0.5943	0.0000	1,169.3502	1,169.3502	0.2254		1,174.9857
Total	1.0643	9.4295	7.7762	0.0120	0.5085	0.6228	1.1313	0.0770	0.5943	0.6713	0.0000	1,169.3502	1,169.3502	0.2254		1,174.9857

Alcalde Road Lot Split - Bay Area AQMD Air District, Summer

3.2 Demolition - 2018**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0218	0.7425	0.1396	1.8700e-003	0.0402	2.9800e-003	0.0432	0.0110	2.8600e-003	0.0139		199.7543	199.7543	0.0103		200.0107
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	0.0639	0.7697	0.4746	2.7500e-003	0.1223	3.5300e-003	0.1259	0.0328	3.3700e-003	0.0362		287.1106	287.1106	0.0128		287.4309

3.3 Site Preparation - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5330	0.0000	0.5330	0.0600	0.0000	0.0600			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	0.5330	0.4180	0.9510	0.0600	0.3846	0.4445		982.7113	982.7113	0.3059		990.3596

Alcalde Road Lot Split - Bay Area AQMD Air District, Summer

3.3 Site Preparation - 2018**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5872	20.0141	3.7621	0.0505	1.0831	0.0805	1.1636	0.2968	0.0770	0.3738		5,384.6797	5,384.6797	0.2766		5,391.5940
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	0.6083	20.0277	3.9296	0.0509	1.1242	0.0807	1.2049	0.3077	0.0772	0.3849		5,428.3579	5,428.3579	0.2779		5,435.3041

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5330	0.0000	0.5330	0.0600	0.0000	0.0600			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	0.5330	0.4180	0.9510	0.0600	0.3846	0.4445	0.0000	982.7113	982.7113	0.3059		990.3596

Alcalde Road Lot Split - Bay Area AQMD Air District, Summer

3.3 Site Preparation - 2018**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5872	20.0141	3.7621	0.0505	1.0831	0.0805	1.1636	0.2968	0.0770	0.3738		5,384.6797	5,384.6797	0.2766		5,391.5940
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	0.6083	20.0277	3.9296	0.0509	1.1242	0.0807	1.2049	0.3077	0.0772	0.3849		5,428.3579	5,428.3579	0.2779		5,435.3041

3.4 Grading - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.0643	9.4295	7.7762	0.0120		0.6228	0.6228		0.5943	0.5943		1,169.3502	1,169.3502	0.2254		1,174.9857
Total	1.0643	9.4295	7.7762	0.0120	0.7528	0.6228	1.3755	0.4138	0.5943	1.0081		1,169.3502	1,169.3502	0.2254		1,174.9857

Alcalde Road Lot Split - Bay Area AQMD Air District, Summer

3.4 Grading - 2018**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0421	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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.0643	9.4295	7.7762	0.0120		0.6228	0.6228		0.5943	0.5943	0.0000	1,169.3502	1,169.3502	0.2254		1,174.9857
Total	1.0643	9.4295	7.7762	0.0120	0.7528	0.6228	1.3755	0.4138	0.5943	1.0081	0.0000	1,169.3502	1,169.3502	0.2254		1,174.9857

Alcalde Road Lot Split - Bay Area AQMD Air District, Summer

3.4 Grading - 2018**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0421	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

3.5 Building Construction - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0848	11.0316	7.7512	0.0114		0.7087	0.7087		0.6520	0.6520		1,146.5323	1,146.5323	0.3569		1,155,4555
Total	1.0848	11.0316	7.7512	0.0114		0.7087	0.7087		0.6520	0.6520		1,146.5323	1,146.5323	0.3569		1,155,4555

Alcalde Road Lot Split - Bay Area AQMD Air District, Summer

3.5 Building Construction - 2018**Unmitigated Construction Off-Site**

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0848	11.0316	7.7512	0.0114		0.7087	0.7087		0.6520	0.6520	0.0000	1,146.5323	1,146.5323	0.3569		1,155,4555
Total	1.0848	11.0316	7.7512	0.0114		0.7087	0.7087		0.6520	0.6520	0.0000	1,146.5323	1,146.5323	0.3569		1,155,4555

Alcalde Road Lot Split - Bay Area AQMD Air District, Summer

3.5 Building Construction - 2018**Mitigated Construction Off-Site**

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

3.6 Paving - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9202	8.7447	7.2240	0.0113		0.5109	0.5109		0.4735	0.4735		1,070.1372	1,070.1372	0.3017		1,077.6798
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		1,070.1372	1,070.1372	0.3017		1,077.6798

Alcalde Road Lot Split - Bay Area AQMD Air District, Summer

3.6 Paving - 2018**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0758	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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9202	8.7447	7.2240	0.0113		0.5109	0.5109		0.4735	0.4735	0.0000	1,070.1372	1,070.1372	0.3017		1,077.6798
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	1,070.1372	1,070.1372	0.3017		1,077.6798

Alcalde Road Lot Split - Bay Area AQMD Air District, Summer

3.6 Paving - 2018**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0758	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

3.7 Architectural Coating - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.5068					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	0.8055	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171

Alcalde Road Lot Split - Bay Area AQMD Air District, Summer

3.7 Architectural Coating - 2018**Unmitigated Construction Off-Site**

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.5068					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	0.8055	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

Alcalde Road Lot Split - Bay Area AQMD Air District, Summer

3.7 Architectural Coating - 2018**Mitigated Construction Off-Site**

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

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Alcalde Road Lot Split - Bay Area AQMD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0380	0.1524	0.3891	1.2000e-003	0.0935	1.4400e-003	0.0949	0.0250	1.3600e-003	0.0264		120.7671	120.7671	4.7800e-003		120.8866
Unmitigated	0.0380	0.1524	0.3891	1.2000e-003	0.0935	1.4400e-003	0.0949	0.0250	1.3600e-003	0.0264		120.7671	120.7671	4.7800e-003		120.8866

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	19.04	19.04	19.04	43,975	43,975
Total	19.04	19.04	19.04	43,975	43,975

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	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
Single Family Housing	0.570523	0.041853	0.194077	0.115893	0.018544	0.005373	0.016909	0.024079	0.002502	0.002562	0.005975	0.000872	0.000837

5.0 Energy Detail

Historical Energy Use: N

Alcalde Road Lot Split - Bay Area AQMD Air District, Summer

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	2.5000e-003	0.0214	9.0900e-003	1.4000e-004		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003		27.2837	27.2837	5.2000e-004	5.0000e-004	27.4458
NaturalGas Unmitigated	2.5000e-003	0.0214	9.0900e-003	1.4000e-004		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003		27.2837	27.2837	5.2000e-004	5.0000e-004	27.4458

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	231.911	2.5000e-003	0.0214	9.0900e-003	1.4000e-004		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003		27.2837	27.2837	5.2000e-004	5.0000e-004	27.4458
Total		2.5000e-003	0.0214	9.0900e-003	1.4000e-004		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003		27.2837	27.2837	5.2000e-004	5.0000e-004	27.4458

Alcalde Road Lot Split - Bay Area AQMD Air District, Summer

5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	0.231911	2.5000e-003	0.0214	9.0900e-003	1.4000e-004		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003		27.2837	27.2837	5.2000e-004	5.0000e-004	27.4458
Total		2.5000e-003	0.0214	9.0900e-003	1.4000e-004		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003		27.2837	27.2837	5.2000e-004	5.0000e-004	27.4458

6.0 Area Detail**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.1686	0.0418	2.8464	5.0600e-003		0.3800	0.3800		0.3800	0.3800	40.7567	12.6501	53.4067	0.0507	2.8800e-003	55.5309
Unmitigated	2.1686	0.0418	2.8464	5.0600e-003		0.3800	0.3800		0.3800	0.3800	40.7567	12.6501	53.4067	0.0507	2.8800e-003	55.5309

Alcalde Road Lot Split - Bay Area AQMD Air District, Summer

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0139					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0770					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.0726	0.0399	2.6806	5.0500e-003		0.3791	0.3791		0.3791	0.3791	40.7567	12.3529	53.1096	0.0504	2.8800e-003	55.2265
Landscaping	5.0800e-003	1.9200e-003	0.1658	1.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004		0.2971	0.2971	2.9000e-004		0.3044
Total	2.1686	0.0418	2.8464	5.0600e-003		0.3800	0.3800		0.3800	0.3800	40.7567	12.6500	53.4067	0.0507	2.8800e-003	55.5309

Alcalde Road Lot Split - Bay Area AQMD Air District, Summer

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0139					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0770					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.0726	0.0399	2.6806	5.0500e-003		0.3791	0.3791		0.3791	0.3791	40.7567	12.3529	53.1096	0.0504	2.8800e-003	55.2265
Landscaping	5.0800e-003	1.9200e-003	0.1658	1.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004		0.2971	0.2971	2.9000e-004		0.3044
Total	2.1686	0.0418	2.8464	5.0600e-003		0.3800	0.3800		0.3800	0.3800	40.7567	12.6500	53.4067	0.0507	2.8800e-003	55.5309

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

Alcalde Road Lot Split - 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
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Alcalde Road Lot Split - Bay Area AQMD Air District, Winter

Alcalde Road Lot Split

Bay Area AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	2.00	Dwelling Unit	0.45	3,600.00	6

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 (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

Demolition - Applicant provided

Vehicle Trips - Based on ITE rate (Single Family Homes, 210)

Alcalde Road Lot Split - Bay Area AQMD Air District, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	100.00
tblConstructionPhase	PhaseEndDate	11/21/2018	11/28/2018
tblConstructionPhase	PhaseEndDate	11/7/2018	11/14/2018
tblConstructionPhase	PhaseEndDate	11/14/2018	6/27/2018
tblConstructionPhase	PhaseStartDate	11/15/2018	7/12/2018
tblConstructionPhase	PhaseStartDate	6/21/2018	6/28/2018
tblConstructionPhase	PhaseStartDate	11/8/2018	6/21/2018
tblGrading	AcresOfGrading	0.50	0.45
tblGrading	MaterialExported	0.00	363.00
tblGrading	MaterialImported	0.00	130.00
tblLandUse	LotAcreage	0.65	0.45
tblProjectCharacteristics	CO2IntensityFactor	641.35	409.81
tblVehicleTrips	ST_TR	9.91	9.52
tblVehicleTrips	SU_TR	8.62	9.52

2.0 Emissions Summary

Alcalde Road Lot Split - Bay Area AQMD Air District, Winter

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	1.8947	30.3063	9.6373	0.0598	1.6571	0.8593	2.1575	0.4356	0.8026	1.0304	0.0000	6,320.5890	6,320.5890	0.5992	0.0000	6,335.5695
Maximum	1.8947	30.3063	9.6373	0.0598	1.6571	0.8593	2.1575	0.4356	0.8026	1.0304	0.0000	6,320.5890	6,320.5890	0.5992	0.0000	6,335.5695

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	1.8947	30.3063	9.6373	0.0598	1.6571	0.8593	2.1575	0.4356	0.8026	1.0304	0.0000	6,320.5890	6,320.5890	0.5992	0.0000	6,335.5695
Maximum	1.8947	30.3063	9.6373	0.0598	1.6571	0.8593	2.1575	0.4356	0.8026	1.0304	0.0000	6,320.5890	6,320.5890	0.5992	0.0000	6,335.5695

[illegible]

Alcalde Road Lot Split - 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	2.1686	0.0418	2.8464	5.0600e-003		0.3800	0.3800		0.3800	0.3800	40.7567	12.6501	53.4067	0.0507	2.8800e-003	55.5309
Energy	2.5000e-003	0.0214	9.0900e-003	1.4000e-004		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003		27.2837	27.2837	5.2000e-004	5.0000e-004	27.4458
Mobile	0.0334	0.1613	0.3962	1.1200e-003	0.0935	1.4600e-003	0.0949	0.0250	1.3700e-003	0.0264		112.9590	112.9590	4.8800e-003		113.0809
Total	2.2045	0.2245	3.2517	6.3200e-003	0.0935	0.3832	0.4766	0.0250	0.3831	0.4081	40.7567	152.8927	193.6494	0.0561	3.3800e-003	196.0576

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.1686	0.0418	2.8464	5.0600e-003		0.3800	0.3800		0.3800	0.3800	40.7567	12.6501	53.4067	0.0507	2.8800e-003	55.5309
Energy	2.5000e-003	0.0214	9.0900e-003	1.4000e-004		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003		27.2837	27.2837	5.2000e-004	5.0000e-004	27.4458
Mobile	0.0334	0.1613	0.3962	1.1200e-003	0.0935	1.4600e-003	0.0949	0.0250	1.3700e-003	0.0264		112.9590	112.9590	4.8800e-003		113.0809
Total	2.2045	0.2245	3.2517	6.3200e-003	0.0935	0.3832	0.4766	0.0250	0.3831	0.4081	40.7567	152.8927	193.6494	0.0561	3.3800e-003	196.0576

Alcalde Road Lot Split - Bay Area AQMD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/4/2018	6/15/2018	5	10	
2	Site Preparation	Site Preparation	6/16/2018	6/18/2018	5	1	
3	Grading	Grading	6/19/2018	6/20/2018	5	2	
4	Building Construction	Building Construction	6/28/2018	11/14/2018	5	100	
5	Paving	Paving	6/21/2018	6/27/2018	5	5	
6	Architectural Coating	Architectural Coating	7/12/2018	11/28/2018	5	100	

Acres of Grading (Site Preparation Phase): 0.45**Acres of Grading (Grading Phase): 0****Acres of Paving: 0****Residential Indoor: 7,290; Residential Outdoor: 2,430; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Alcalde Road Lot Split - Bay Area AQMD Air District, Winter

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
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
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
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	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
Demolition	4	10.00	0.00	23.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	62.00	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
Building Construction	5	1.00	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
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Alcalde Road Lot Split - Bay Area AQMD Air District, Winter

3.1 Mitigation Measures Construction**3.2 Demolition - 2018****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5085	0.0000	0.5085	0.0770	0.0000	0.0770			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	0.5085	0.6228	1.1313	0.0770	0.5943	0.6713		1,169.350 2	1,169.350 2	0.2254		1,174.985 7

Alcalde Road Lot Split - Bay Area AQMD Air District, Winter

3.2 Demolition - 2018**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0224	0.7617	0.1518	1.8400e-003	0.0402	3.0500e-003	0.0432	0.0110	2.9100e-003	0.0139		196.5253	196.5253	0.0108		196.7962
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	0.0670	0.7953	0.4702	2.6500e-003	0.1223	3.6000e-003	0.1259	0.0328	3.4200e-003	0.0362		277.0040	277.0040	0.0133		277.3352

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5085	0.0000	0.5085	0.0770	0.0000	0.0770			0.0000			0.0000
Off-Road	1.0643	9.4295	7.7762	0.0120		0.6228	0.6228		0.5943	0.5943	0.0000	1,169.3502	1,169.3502	0.2254		1,174.9857
Total	1.0643	9.4295	7.7762	0.0120	0.5085	0.6228	1.1313	0.0770	0.5943	0.6713	0.0000	1,169.3502	1,169.3502	0.2254		1,174.9857

Alcalde Road Lot Split - Bay Area AQMD Air District, Winter

3.2 Demolition - 2018**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0224	0.7617	0.1518	1.8400e-003	0.0402	3.0500e-003	0.0432	0.0110	2.9100e-003	0.0139		196.5253	196.5253	0.0108		196.7962
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	0.0670	0.7953	0.4702	2.6500e-003	0.1223	3.6000e-003	0.1259	0.0328	3.4200e-003	0.0362		277.0040	277.0040	0.0133		277.3352

3.3 Site Preparation - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5330	0.0000	0.5330	0.0600	0.0000	0.0600			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	0.5330	0.4180	0.9510	0.0600	0.3846	0.4445		982.7113	982.7113	0.3059		990.3596

Alcalde Road Lot Split - Bay Area AQMD Air District, Winter

3.3 Site Preparation - 2018**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6048	20.5323	4.0911	0.0497	1.0831	0.0821	1.1652	0.2968	0.0786	0.3754		5,297.638 4	5,297.638 4	0.2921		5,304.940 4
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	0.6271	20.5491	4.2503	0.0501	1.1242	0.0824	1.2066	0.3077	0.0788	0.3865		5,337.877 7	5,337.877 7	0.2933		5,345.209 9

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5330	0.0000	0.5330	0.0600	0.0000	0.0600			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	0.5330	0.4180	0.9510	0.0600	0.3846	0.4445	0.0000	982.7113	982.7113	0.3059		990.3596

Alcalde Road Lot Split - Bay Area AQMD Air District, Winter

3.3 Site Preparation - 2018**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6048	20.5323	4.0911	0.0497	1.0831	0.0821	1.1652	0.2968	0.0786	0.3754		5,297.638 4	5,297.638 4	0.2921		5,304.940 4
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	0.6271	20.5491	4.2503	0.0501	1.1242	0.0824	1.2066	0.3077	0.0788	0.3865		5,337.877 7	5,337.877 7	0.2933		5,345.209 9

3.4 Grading - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			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	0.7528	0.6228	1.3755	0.4138	0.5943	1.0081		1,169.350 2	1,169.350 2	0.2254		1,174.985 7

Alcalde Road Lot Split - Bay Area AQMD Air District, Winter

3.4 Grading - 2018**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0446	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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.0643	9.4295	7.7762	0.0120		0.6228	0.6228		0.5943	0.5943	0.0000	1,169.3502	1,169.3502	0.2254		1,174.9857
Total	1.0643	9.4295	7.7762	0.0120	0.7528	0.6228	1.3755	0.4138	0.5943	1.0081	0.0000	1,169.3502	1,169.3502	0.2254		1,174.9857

Alcalde Road Lot Split - Bay Area AQMD Air District, Winter

3.4 Grading - 2018**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0446	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

3.5 Building Construction - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0848	11.0316	7.7512	0.0114		0.7087	0.7087		0.6520	0.6520		1,146.5323	1,146.5323	0.3569		1,155,4555
Total	1.0848	11.0316	7.7512	0.0114		0.7087	0.7087		0.6520	0.6520		1,146.5323	1,146.5323	0.3569		1,155,4555

Alcalde Road Lot Split - Bay Area AQMD Air District, Winter

3.5 Building Construction - 2018**Unmitigated Construction Off-Site**

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0848	11.0316	7.7512	0.0114		0.7087	0.7087		0.6520	0.6520	0.0000	1,146.5323	1,146.5323	0.3569		1,155.4555
Total	1.0848	11.0316	7.7512	0.0114		0.7087	0.7087		0.6520	0.6520	0.0000	1,146.5323	1,146.5323	0.3569		1,155.4555

Alcalde Road Lot Split - Bay Area AQMD Air District, Winter

3.5 Building Construction - 2018**Mitigated Construction Off-Site**

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

3.6 Paving - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9202	8.7447	7.2240	0.0113		0.5109	0.5109		0.4735	0.4735		1,070.1372	1,070.1372	0.3017		1,077.6798
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		1,070.1372	1,070.1372	0.3017		1,077.6798

Alcalde Road Lot Split - Bay Area AQMD Air District, Winter

3.6 Paving - 2018**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0802	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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9202	8.7447	7.2240	0.0113		0.5109	0.5109		0.4735	0.4735	0.0000	1,070.1372	1,070.1372	0.3017		1,077.6798
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	1,070.1372	1,070.1372	0.3017		1,077.6798

Alcalde Road Lot Split - Bay Area AQMD Air District, Winter

3.6 Paving - 2018**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0802	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

3.7 Architectural Coating - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.5068					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	0.8055	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171

Alcalde Road Lot Split - Bay Area AQMD Air District, Winter

3.7 Architectural Coating - 2018**Unmitigated Construction Off-Site**

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.5068					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	0.8055	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

Alcalde Road Lot Split - Bay Area AQMD Air District, Winter

3.7 Architectural Coating - 2018**Mitigated Construction Off-Site**

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

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Alcalde Road Lot Split - Bay Area AQMD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0334	0.1613	0.3962	1.1200e-003	0.0935	1.4600e-003	0.0949	0.0250	1.3700e-003	0.0264		112.9590	112.9590	4.8800e-003		113.0809
Unmitigated	0.0334	0.1613	0.3962	1.1200e-003	0.0935	1.4600e-003	0.0949	0.0250	1.3700e-003	0.0264		112.9590	112.9590	4.8800e-003		113.0809

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	19.04	19.04	19.04	43,975	43,975
Total	19.04	19.04	19.04	43,975	43,975

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	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
Single Family Housing	0.570523	0.041853	0.194077	0.115893	0.018544	0.005373	0.016909	0.024079	0.002502	0.002562	0.005975	0.000872	0.000837

5.0 Energy Detail

Historical Energy Use: N

Alcalde Road Lot Split - Bay Area AQMD Air District, Winter

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	2.5000e-003	0.0214	9.0900e-003	1.4000e-004		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003		27.2837	27.2837	5.2000e-004	5.0000e-004	27.4458
NaturalGas Unmitigated	2.5000e-003	0.0214	9.0900e-003	1.4000e-004		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003		27.2837	27.2837	5.2000e-004	5.0000e-004	27.4458

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	231.911	2.5000e-003	0.0214	9.0900e-003	1.4000e-004		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003		27.2837	27.2837	5.2000e-004	5.0000e-004	27.4458
Total		2.5000e-003	0.0214	9.0900e-003	1.4000e-004		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003		27.2837	27.2837	5.2000e-004	5.0000e-004	27.4458

Alcalde Road Lot Split - Bay Area AQMD Air District, Winter

5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	0.231911	2.5000e-003	0.0214	9.0900e-003	1.4000e-004		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003		27.2837	27.2837	5.2000e-004	5.0000e-004	27.4458
Total		2.5000e-003	0.0214	9.0900e-003	1.4000e-004		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003		27.2837	27.2837	5.2000e-004	5.0000e-004	27.4458

6.0 Area Detail**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.1686	0.0418	2.8464	5.0600e-003		0.3800	0.3800		0.3800	0.3800	40.7567	12.6501	53.4067	0.0507	2.8800e-003	55.5309
Unmitigated	2.1686	0.0418	2.8464	5.0600e-003		0.3800	0.3800		0.3800	0.3800	40.7567	12.6501	53.4067	0.0507	2.8800e-003	55.5309

Alcalde Road Lot Split - Bay Area AQMD Air District, Winter

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0139					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0770					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.0726	0.0399	2.6806	5.0500e-003		0.3791	0.3791		0.3791	0.3791	40.7567	12.3529	53.1096	0.0504	2.8800e-003	55.2265
Landscaping	5.0800e-003	1.9200e-003	0.1658	1.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004		0.2971	0.2971	2.9000e-004		0.3044
Total	2.1686	0.0418	2.8464	5.0600e-003		0.3800	0.3800		0.3800	0.3800	40.7567	12.6500	53.4067	0.0507	2.8800e-003	55.5309

Alcalde Road Lot Split - Bay Area AQMD Air District, Winter

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0139					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0770					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.0726	0.0399	2.6806	5.0500e-003		0.3791	0.3791		0.3791	0.3791	40.7567	12.3529	53.1096	0.0504	2.8800e-003	55.2265
Landscaping	5.0800e-003	1.9200e-003	0.1658	1.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004		0.2971	0.2971	2.9000e-004		0.3044
Total	2.1686	0.0418	2.8464	5.0600e-003		0.3800	0.3800		0.3800	0.3800	40.7567	12.6500	53.4067	0.0507	2.8800e-003	55.5309

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

Alcalde Road Lot Split - Bay Area AQMD Air District, Winter

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
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Alcalde Road Lot Split
Bay Area AQMD Air District, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	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
Demolition	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.00	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

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	2	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	2	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	8	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Unmitigated tons/yr							Unmitigated mt/yr					
Air Compressors	1.49300E-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	3.12000E-003	2.34900E-002	2.23400E-002	4.00000E-005	1.60000E-003	1.60000E-003	0.00000E+000	3.22594E+000	3.22594E+000	2.50000E-004	0.00000E+000	3.23218E+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	2.60000E-004	3.56000E-003	9.60000E-004	0.00000E+000	1.20000E-004	1.10000E-004	0.00000E+000	3.03880E-001	3.03880E-001	9.00000E-005	0.00000E+000	3.06240E-001
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	8.70000E-004	9.42000E-003	3.28000E-003	1.00000E-005	4.60000E-004	4.20000E-004	0.00000E+000	5.85250E-001	5.85250E-001	1.80000E-004	0.00000E+000	5.89810E-001
Tractors/Loaders/Backhoes	2.97200E-002	2.93710E-001	2.60980E-001	3.50000E-004	2.08100E-002	1.91400E-002	0.00000E+000	3.16908E+001	3.16908E+001	9.87000E-003	0.00000E+000	3.19375E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Mitigated tons/yr							Mitigated mt/yr					
Air Compressors	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	3.12000E-003	2.34900E-002	2.23400E-002	4.00000E-005	1.60000E-003	1.60000E-003	0.00000E+000	3.22593E+000	3.22593E+000	2.50000E-004	0.00000E+000	3.23218E+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	2.60000E-004	3.56000E-003	9.60000E-004	0.00000E+000	1.20000E-004	1.10000E-004	0.00000E+000	3.03880E-001	3.03880E-001	9.00000E-005	0.00000E+000	3.06240E-001
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	8.70000E-004	9.42000E-003	3.28000E-003	1.00000E-005	4.60000E-004	4.20000E-004	0.00000E+000	5.85250E-001	5.85250E-001	1.80000E-004	0.00000E+000	5.89810E-001
Tractors/Loaders/Balckhoes	2.97200E-002	2.93710E-001	2.60980E-001	3.50000E-004	2.08100E-002	1.91400E-002	0.00000E+000	3.16908E+001	3.16908E+001	9.87000E-003	0.00000E+000	3.19374E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	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	3.09987E-006	3.09987E-006	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	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Tractors/Loaders/Balckhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	9.46646E-007	9.46646E-007	0.00000E+000	0.00000E+000	1.25245E-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)	0.00
No	Clean Paved Road	% PM Reduction	0.00	

Phase	Source	Unmitigated		Mitigated		Percent Reduction	
		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
Demolition	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Demolition	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Grading	Fugitive Dust	0.00	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

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

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		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

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

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

Area Mitigation

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

Energy Mitigation Measures

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

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

Water Mitigation Measures

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

Solid Waste Mitigation

Mitigation Measures	Input Value
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Institute Recycling and Composting Services Percent Reduction in Waste Disposed	
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