

INITIAL STUDY AND ENVIRONMENTAL REVIEW CHECKLIST

California Environmental Quality Act (CEQA)

1. Project Title: Manzanita Drive Residence
2. Lead Agency Name and Address: City of Oakland
Planning and Building Department, Bureau of Planning
250 Frank H. Ogawa Plaza, Suite 2114
Oakland, CA 94612
3. Lead Agency Contact Person and Phone Number: Maurice Brenyah-Addow,
Planner III, City of Oakland
Ph: 510 238-6432
4. Project Location: Manzanita Drive between 2199 and 2211 Manzanita, above Skyline Boulevard, Oakland,
CA 94611 (APN 48E-7320-28)
5. Project Sponsor's Name and Address: Tambri Heyden and David Montalbo
448 Blue Ridge Drive
Martinez, CA 94553
6. General Plan Designation: Hillside Residential (HR)
7. Zoning: RH-4/S-10
8. Description of Project:

The project is a single-family house on an 8097 sq. ft. lot in an urbanized block of Manzanita Drive, near the crest of the Oakland Hills (see Figure 1). The lot is approximately 160 feet deep by 50 feet wide (see Figure 2). The house would be two stories, with a living area of 2982 square feet (sq. ft.) and a 445-sq. ft. garage under the living area. The house would have a footprint of 1846 sq. ft., resulting in a lot-coverage of 22.4% (not including decks over 6 feet in height should be included in coverage, walkways, and the driveway). The garage would be set back about 28 feet from the edge of pavement, accessed by a 19-foot wide paved driveway from Manzanita Drive. Minimum side yard setbacks of the walls from the property line would be five feet, with much of the house having a larger setback. Roof eaves would encroach about 2.5 feet into this setback. The front yard setback would be about 26.5 feet from the edge of pavement. Not sure where this dimension is taken but the shortest setback is approximately 37 feet. The rear yard setback would be approximately 80 feet, terminating at the City's Skyline Boulevard right of way.

The house would be modern in design, with stucco siding and redwood accents. It would be just under 35 feet at the rear elevation and just under 21 feet at the front elevation (see Figures 3 and 4). Grading of about 500 cubic yards would be required to construct the house, and would mostly be hauled off-site (approximately 50 truck trips). A stormwater outfall dissipator would be constructed below the house. The house would be connected to existing utilities on Manzanita

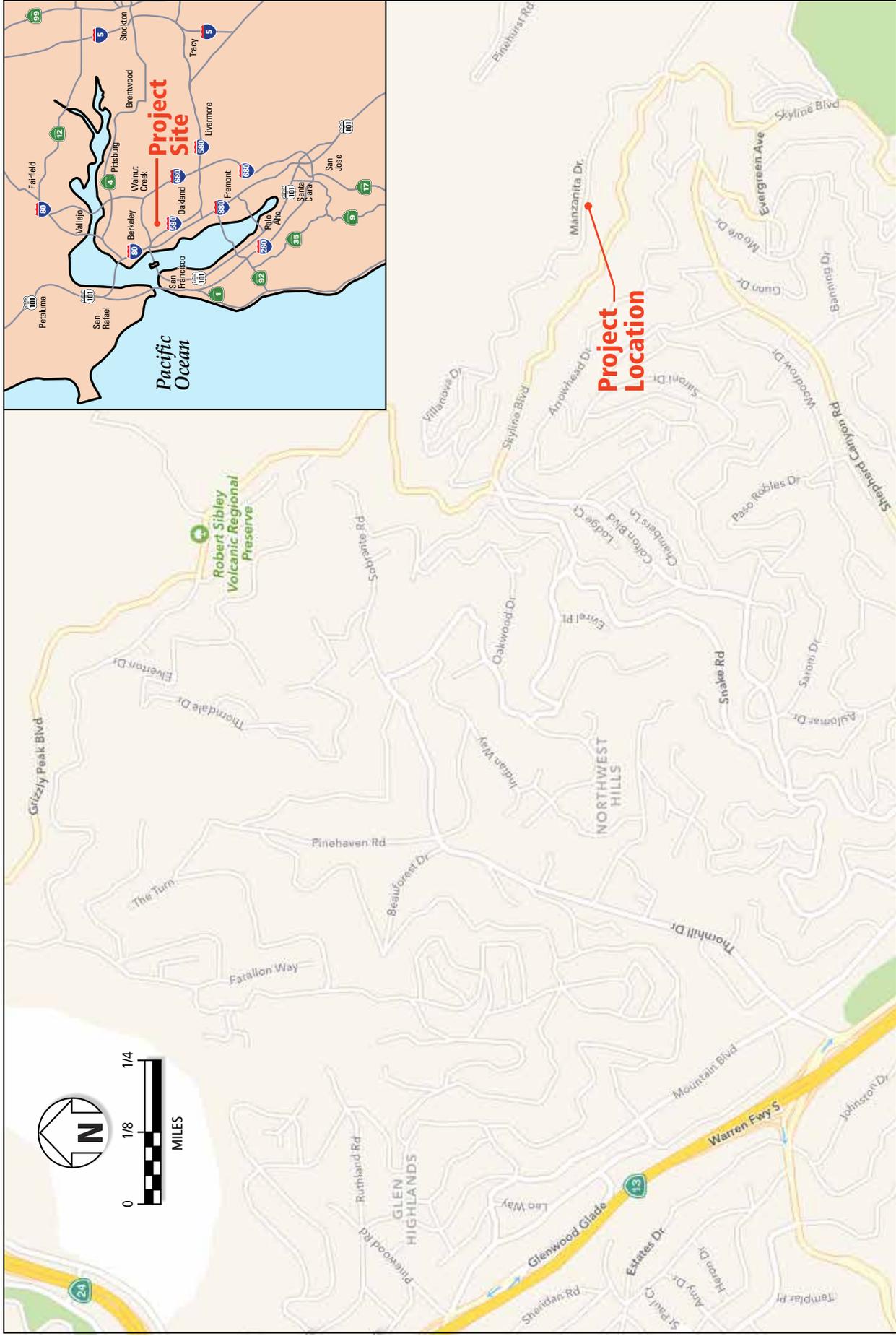


Figure 1

Project Location

Source: TomTom Maps and Grassetti Environmental

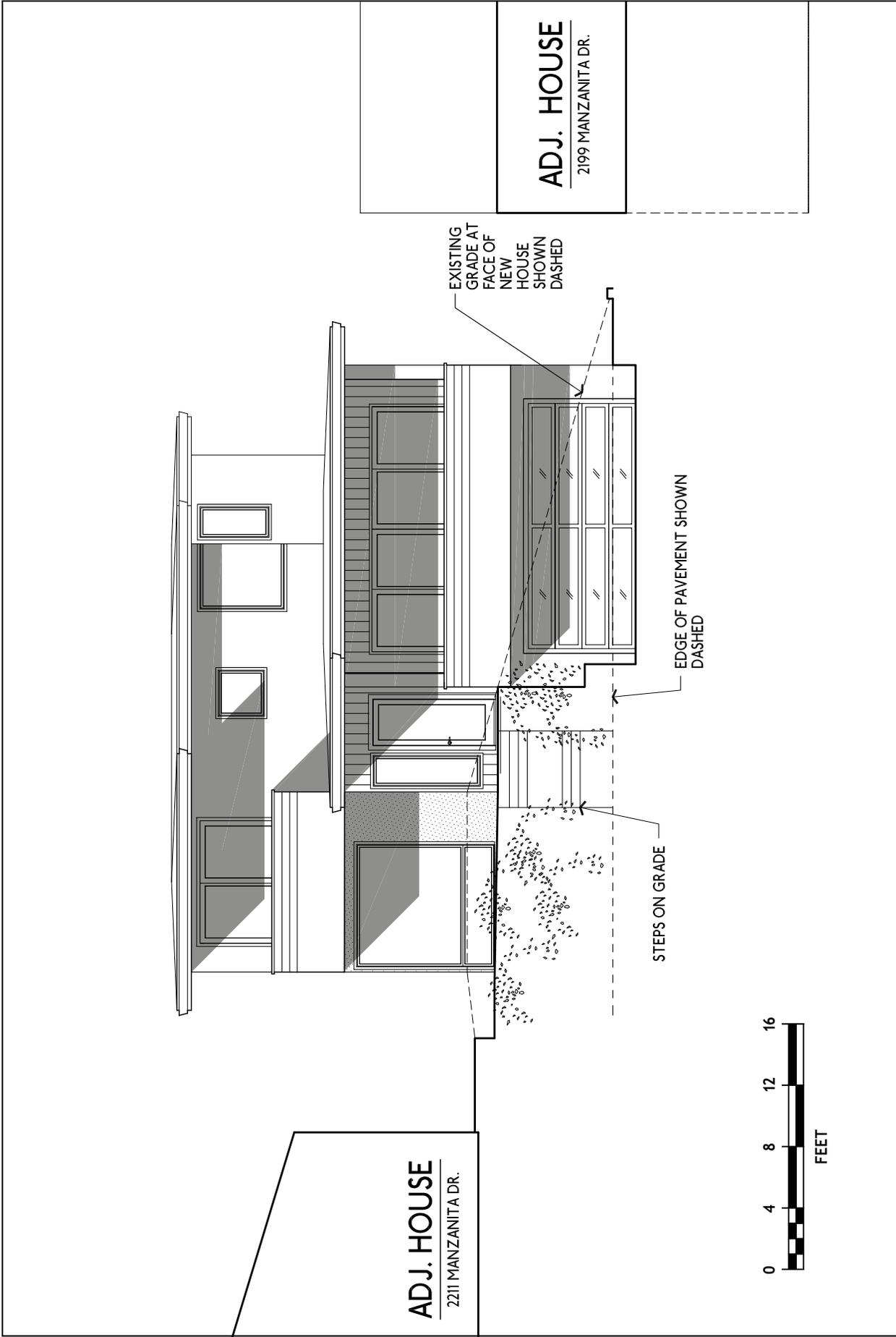


Figure 3
Manzanita Drive Elevation



Figure 4
East and West Elevations

Drive. The house would be constructed over an approximately 10-12-month period, from September 2016 to October 2017.

An Incidental Take Permit (ITP) Application, dated March 23, 2016, was submitted to the California Department of Fish and Wildlife for approval of potential pruning of the roots of the two pallid manzanita plants on the property and pruning of one branch on the rear plant. As per the ITP application, to preserve the micro-habitat conditions that are appropriate for the maintenance of the two conserved pallid manzanitas, there can be no irrigation within the root protection zone of the manzanitas. Since manzanitas are accustomed to long, dry periods during the summer months, summer irrigation during this time period would foster the growth of pathogens that may cause the death of the manzanitas. Furthermore, landscaping of the residential site would exclude horticultural varieties of manzanitas to avoid hybridization and no shrubs or trees would be planted in proximity to the pallid manzanitas to prevent crowding, shading or collection of summer fog drip.

In keeping with the type of habitat necessary for the conservation of the manzanitas, and given the limited area within the front and side yards of the property for landscaping, as well as for water conservation purposes, no turf grass would be planted. The limited landscaping to be planted in these areas would be a selection of drought tolerant, native groundcovers and shrubs.

The steep downslope of the rear yard would be left in its natural state for ease of maintenance. Organic mulch, which serves to control weed invasion and retain moisture, would not be used under the canopy of the manzanitas. Instead, decorative gravel would be used.

7. Surrounding Land Uses and Setting:

The project site is an undeveloped, tree-studded lot situated at the top of a narrow ridge representing the dividing line between residential neighborhoods and undeveloped natural lands controlled by the East Bay Regional Park District's (EBRPD) Huckleberry Botanical Regional Preserve (Huckleberry Preserve). The lot is bounded by Manzanita Drive on the east and Skyline Boulevard on the west. It is situated on a south-southwest-facing slope, between two existing single-family homes. Although the southwest-facing side of the ridge supports extensive residential development and surface streets, it is well-wooded with a combination of native and non-native trees and brush. A swim and tennis club (The Hills) is located just to the southeast of the site. Directly across Manzanita Drive to the east is the Huckleberry Preserve, a recreational open space and preserve for a number of rare plants, including the pallid manzanita, which is listed as Threatened under the federal Endangered Species Act and Endangered under the California State Endangered Species Act. The manzanita is discussed in detail in the Biological Resources section of this Initial Study.

9. Actions/permits which may be required, and for which this document provides CEQA clearance, include without limitation:

- City of Oakland: Design Review for a new single-family house; Conditional Use Permit for maximum height above 32 feet for a down-sloping lot (proposed height 34 feet, nine inches), and a Minor Variance for maximum height exceeding 18 feet above the edge of pavement elevation by 11 feet (site slopes up approx. 10 feet from edge of pavement along the southern property line for a distance of approx. 45 feet, and then slopes down towards rear of site).
- California Department of Fish and Wildlife: Incidental Take Permit.

10. Other Public Agencies Interested in the Project: California Department of Fish and Wildlife (CDFW)

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The project would have a “Potentially Significant Impact” on the environmental factors checked below, as indicated by the checklist on the following pages, which could **not** be reduced to a less-than-significant level.

- Aesthetics, Shadow and Wind
- Agriculture and Forest Resources
- Air Quality
- Biological Resources
- Cultural and Historic Resources
- Geology and Soils
- Greenhouse Gas Emissions/
Global Climate Change
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities and Service Systems
- Mandatory Findings of Significance

DETERMINATION

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment with Uniformly Applied Development Standards (imposed as Standards Conditions of Approval), 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 mitigation measures and Uniformly Applied Development Standards (imposed as Standard Conditions of Approval) have been imposed on the project. A MITIGATED NEGATIVE DECLARATION will be prepared. X

I find that the proposed project MAY have a “potentially significant impact” on the environment, and an ENVIRONMENTAL IMPACT REPORT (EIR) is required, but it must analyze only the effects that remain to be addressed.

I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect (a) has been adequately analyzed in earlier document(s) pursuant to applicable legal standards and/or (b) has been addressed by mitigation measures or Uniformly Applied Development Standards (imposed as Standard Conditions of Approval) based on the earlier analysis, and, in part, on CEQA Guidelines section 15183. A SUPPLEMENTAL/SUBSEQUENT ENVIRONMENTAL IMPACT REPORT (EIR) 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 or (MITIGATED) NEGATIVE DECLARATION pursuant to applicable standards and/or (b) have been avoided or mitigated pursuant to that earlier EIR or (MITIGATED) NEGATIVE DECLARATION, including revisions or mitigation measures or Uniformly Applied Development Standards (imposed

as Standard Conditions of Approval) that are imposed upon the proposed project, no further CEQA review is required and an ADDENDUM is appropriate.



Signature

Date

Darin Ranelletti
Deputy Director
Department of Planning and Building
Environmental Review Officer

EVALUATION OF ENVIRONMENTAL IMPACTS

CEQA requires that an explanation of all answers be provided along with this checklist, including a discussion of ways to mitigate any significant effects identified. Once the lead agency has determined that a particular physical impact may occur, the checklist must indicate whether the impact is potentially significant, less than significant with mitigation, less than significant with Uniformly Applied Development Standards (imposed as Standard Conditions of Approval), or less than significant. As defined here:

A **“Potentially Significant Impact”** answer is appropriate if the significant effect is considered to have a substantial or potentially substantial adverse effect on the environment. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.

A **“Potentially Significant Impact Unless Mitigation Incorporated”** answer applies where incorporation of a mitigation measure has reduced an effect from potentially significant to less than significant. The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less-than-significant level.

A **“Less than Significant with Standard Condition of Approval”** answer applies where incorporation of a Uniformly Applied Development Standard (imposed as a Standard Condition of Approval) has reduced an effect from potentially significant to less than significant. The City’s Standard Conditions of Approval are incorporated into projects as conditions of project approval regardless of a project’s environmental determination. As applicable, the Standard Conditions of Approval are adopted as requirements of an individual project when it is approved by the City and are designed to, and will, substantially mitigate environmental effects, in part, pursuant to CEQA Guidelines section 15183. In reviewing project applications, the City determines which of the Standard Conditions of Approval are applied, based upon the zoning district, community plan, and the type(s) of permit(s)/approvals(s) required for the project. Depending on the specific characteristics of the project type and/or project site, the city will determine which standard conditions apply to each project; for example, Standard Conditions related to creek protection permits will only be applied to projects on creekside properties.

The Standard Conditions of Approval were initially and formally adopted by the City Council on November 3, 2008 (Ordinance No. 12899 C.M.S.), pursuant to Public Resources Code section 21083.3 and CEQA Guidelines section 15183, and incorporate development policies and standards from various adopted plans, policies, and ordinances (such as the Oakland Planning and Municipal Codes, Oakland Creek Protection, Stormwater Water Management and Discharge Control Ordinance, Oakland Tree Protection Ordinance, Oakland Grading Regulations, National Pollutant Discharge Elimination System (NPDES) permit requirements, Housing Element-related mitigation measures, California Building Code, and Uniform Fire Code, among others), which have been found to substantially mitigate environmental effects. Where there are peculiar circumstances associated with a project or project site that will result in significant environmental impacts despite implementation of the Standard Conditions, the City will determine whether there are feasible mitigation measures to reduce the impact to less-than-significant levels in the course of appropriate CEQA review (mitigated negative declarations or EIRs).

A **“Less than Significant Impact”** answer applies where the project creates no substantial or potentially substantial adverse effect on the environment.

A **“No Impact”** answer applies where a project does not create any impact in that category. A “No Impact” answer needs to be adequately supported by information sources cited by the lead agency. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply doesn’t apply to projects like the one under review. A “No Impact” answer should be explained where it is based on project – specific factors as well as general standards.

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

I. AESTHETICS, SHADOW AND WIND -- Would the project:

1. Have a substantial adverse effect on a public scenic vista? ¹	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
2. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, located within a state or locally designated scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
3. Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
4. Create a new source of substantial light or glare which would substantially and adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
5. Introduce landscape that would now or in the future cast substantial shadows on existing solar collectors (in conflict with California Public Resource Code sections 25980-25986)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
6. Cast shadow that substantially impairs the function of a building using passive solar heat collection, solar collectors for hot water heating, or photovoltaic solar collectors?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
7. Cast shadow that substantially impairs the beneficial use of any public or quasi-public park, lawn, garden, or open space?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
8. Cast shadow on an historic resource, as defined by CEQA Guidelines section 15064.5(a), such that the shadow would materially impair the resource's historic significance by materially altering those physical characteristics of the resource that convey its historical significance <u>and</u> that justify its inclusion on or eligibility for listing in the National Register of Historic Places, California Register of Historical Resources, Local Register of historical					

¹ Only impacts to scenic views enjoyed by members of the public generally (but not private views) are potentially significant.

	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
resources, or a historical resource survey form (DPR Form 523) with a rating of 1-5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
9. Require an exception (variance) to the policies and regulations in the General Plan, Planning Code, or Uniform Building Code, and the exception causes a fundamental conflict with policies and regulations in the General Plan, Planning Code, and Uniform Building Code addressing the provision of adequate light related to appropriate uses?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
10. Create winds that exceed 36 mph for more than one hour during daylight hours during the year? ²	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

Explanation:

- 1, 2) The project site is a small, tree-studded, infill parcel in a residential neighborhood in the Oakland Hills (See Figure 5). The project would remove sixteen trees from the site. Because the site is a small (approximately 8,000 sq. ft.) lot with residential development on both sides, and because the trees visible from Skyline Boulevard would remain, removal of these trees would not result in substantial damage to scenic resources or routes. No rock outcroppings or historic buildings would be affected, nor is the site within a designated scenic highway corridor (per the Caltrans list of Scenic Highways (2016)). Skyline Boulevard is a City-designated scenic route under the Scenic Highway Element of the Oakland General Plan. The lot's S-10 zoning overlay controls development the downhill side of Skyline Boulevard to protect the scenic route. In addition, design review and landscape screening are required under the Scenic Highway Element. Additionally, the proposed house would not be visible from Skyline Boulevard, nor would the project remove vegetation visible from that route. Therefore *no impact* to scenic routes or scenic resources would occur.

- 3) As described in items 1 and 2, above, there are no important scenic resources on the site. The site is currently undeveloped and has numerous trees and shrubs on it. Single-family residences exist on both sides of the lot. The proposed house would replace existing views of the open lot from Manzanita Drive with views of a landscaped front yard, driveway, and house. The house would be similar in size and scale to other houses in the neighborhood, although portions of it would be slightly taller than the adjacent houses on either side (2 to 2.5 stories vs. 1-1.5 stories). Portions of the house would be close to neighboring houses on

² The wind analysis only needs to be done if the project's height is 100 feet or greater (measured to the roof) and one of the following conditions exist: (a) the project is located adjacent to a substantial water body (i.e., Oakland Estuary, Lake Merritt or San Francisco Bay); or (b) the project is located in Downtown. Downtown is defined in the Land Use and Transportation Element of the General Plan (page 67) as the area generally bounded by West Grand Avenue to the north, Lake Merritt and Channel Park to the east, the Oakland Estuary to the south and I-980/Brush Street to the west. The wind analysis must consider the project's contribution to wind impacts to on- and off-site public and private spaces. Only impacts to public spaces (on- and off-site) and off-site private spaces are considered CEQA impacts. Although impacts to on-site private spaces are considered a planning-related non-CEQA issue, such potential impacts still must be analyzed.



Figure 5
View of Site from Manzanita Drive

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

either side (approximately as close as 10 feet), which would impact side views from those properties.

However these side-yard setbacks are code-compliant and are common for the neighborhood. While the loss of the open space on the lot may be perceived by the neighbors as adverse, the impact would be *less than significant* because the house is not large, it is generally in scale with other houses in the neighborhood, the house would not be visible from Skyline Drive, and the visual change to the lot's 50-foot-wide frontage on Manzanita Drive represents a minimal change to the visual quality of the neighborhood.

- 4) The project would include interior and exterior lighting visible from adjacent houses and Manzanita Drive. The lighting would be typical for residences in the neighborhood. No new street lighting is proposed. Therefore this impact would be *less than significant*. Compliance with City of Oakland Standard Condition 18 would further reduce this impact.
- 5) The project landscape plan does not include any large trees that would cast substantial shadows on existing or future solar collectors. Ten large trees would be removed by the project (See tree removal discussion in Biological Resources section, below). In addition, City of Oakland Standard Condition 17, Landscape Plan, below, would further reduce the project's potential impact on solar access of neighboring houses. (*Less than Significant Impact*)
- 6) A shadow study has been performed for the project (See Appendix A, Biological Resources Report, Figures 6a and 6b). That study shows that the project's removal of several large trees would reduce shading of adjacent houses compared to existing conditions. (*No Impact*)
- 7) The project would not shade any parks or open space. The nearest open space is in the EBRPD's Huckleberry Botanical Preserve, across Manzanita Drive from the site, and project shadow studies (See Appendix A, Biological Resources Report, Figures 6a and 6b) show no project shading of Manzanita Drive. (*No Impact*)
- 8) There are no historic resources on the undeveloped site, therefore no such resources would be shaded by the project. (*No Impact*)
- 9) The project would require a Conditional Use Permit for maximum rear height above 32 feet (34 feet, nine inches proposed), and a Minor Variance for maximum height exceeding 18 feet above grade at front of the lot (house would be approximately 23 feet above grade). These heights are not expected to fundamentally conflict with General Plan policies and goals regarding light access for surrounding properties because overall shading would be reduced by the removal of existing large trees (see shadow studies in Biological Resources report, Appendix A). The project would, however, have a minor impact to the light availability of the upslope house, as filtered light from tree shading would be replaced by a more intense light blockage from the massing of the project house. (*Less than Significant Impact*)
- 10) The 40-foot-wide, 2-2.5-story house would not have the potential to substantially change winds in the area. (*No Impact*)

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

Standard Conditions of Approval

Standard Condition 17: Landscape Plan

Landscape Plan Required

Requirement: The project applicant shall submit a final Landscape Plan for City review and approval that is consistent with the approved Landscape Plan. The Landscape Plan shall be included with the set of drawings submitted for the construction-related permit and shall comply with the landscape requirements of chapter 17.124 of the Planning Code.

When Required: Prior to approval of construction-related permit

Initial Approval: Bureau of Planning

Monitoring/Inspection: N/A

Landscape Installation

Requirement: The project applicant shall implement the approved Landscape Plan unless a bond, cash deposit, letter of credit, or other equivalent instrument acceptable to the Director of City Planning, is provided. The financial instrument shall equal the greater of \$2,500 or the estimated cost of implementing the Landscape Plan based on a licensed contractor's bid.

When Required: Prior to building permit final

Initial Approval: Bureau of Planning

Monitoring/Inspection: Bureau of Building

Landscape Maintenance

Requirement: All required planting shall be permanently maintained in good growing condition and, whenever necessary, replaced with new plant materials to ensure continued compliance with applicable landscaping requirements. The property owner shall be responsible for maintaining planting in adjacent public rights-of-way. All required fences, walls, and irrigation systems shall be permanently maintained in good condition and, whenever necessary, repaired or replaced.

When Required: Ongoing

Initial Approval: N/A

Monitoring/Inspection: Bureau of Building

Standard Condition 18: Lighting

Requirement: Proposed new exterior lighting fixtures shall be adequately shielded to a point below the light bulb and reflector to prevent unnecessary glare onto adjacent properties.

When Required: Prior to building permit final

Initial Approval: N/A

Monitoring/Inspection: Bureau of Building

Sources:

- Project Description and Plans
- Site Reconnaissance

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

Oakland General Plan, Scenic Highways Routes (accessed June 22, 2016)
(http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm)

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

II. AGRICULTURE AND FOREST RESOURCES -- Would the project:

1. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
2. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
3. 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"/>	<input type="checkbox"/>	X
4. 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"/>	<input type="checkbox"/>	X
5. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

Explanation:

1-5) The project site is located in an urbanized area of the Oakland Hills. The site is a small (approx. 8,000 sq. ft.) infill lot situated between two existing single-family residences. The site is zoned Hillside Residential, as are the adjacent lots. This designation does not permit or encourage agricultural uses. Lands across Manzanita Drive are in park, recreation, and open space use. There would be *no impact* on agricultural or forest resources.

Sources:

Oakland General Plan Land Use and Transportation Element, March 1998.
 Oakland General Plan Open Space, Conservation, and Recreation Element, June 1996.

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

III. AIR QUALITY -- Would the project:

A. Project Impacts³

1. During project construction result in average daily emissions of 54 pounds per day of ROG, NO _x , or PM _{2.5} or 82 pounds per day of PM ₁₀ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
2. During project operation result in average daily emissions of 54 pounds per day of ROG, NO _x , or PM _{2.5} or 82 pounds per day of PM ₁₀ ; or result in maximum annual emissions of 10 tons per year of ROG, NO _x , or PM _{2.5} or 15 tons per year of PM ₁₀ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
3. Contribute to carbon monoxide (CO) concentrations exceeding the California Ambient Air Quality Standards (CAAQS) of nine parts per million (ppm) averaged over eight hours and 20 ppm for one hour? ⁴	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
4. During either project construction or project operation expose persons by siting a new source or a new sensitive receptor to substantial levels of Toxic Air Contaminants (TACs) resulting in (a) a cancer risk level greater than 10 in one million, (b) a non-cancer risk (chronic or acute) hazard index greater than 1.0, or (c) an increase of annual average PM _{2.5} of greater than 0.3 micrograms per cubic meter? ⁵	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

³ Except for impacts related to Toxic Air Contaminants (TACs) (checklist item no. 4) and odors (checklist item no. 5), air quality impacts are, by their nature, cumulative impacts because one project by itself cannot generate air pollution that would violate regional air quality standards. Checklist items no. 1 through 3 pertain to a project's contribution to cumulative impacts but are labeled "Project Impacts" to be consistent with the terminology used by the Bay Area Air Quality Management District (BAAQMD).

⁴ Pursuant to BAAQMD CEQA Guidelines, localized CO concentrations should be estimated for projects in which (a) project-generated traffic would conflict with an applicable congestion management program established by the county congestion management agency or (b) project-generated traffic would increase traffic volumes at affected intersections to more than 44,000 vehicles per hour (or 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited, such as tunnels, parking garages, bridge underpasses, natural or urban street canyons, and below-grade roadways). In Oakland, only the MacArthur Maze portion of Interstate 580 exceeds the 44,000 vehicles per hour screening criterion.

⁵ Pursuant to the BAAQMD CEQA Guidelines, when siting new TAC sources consider receptors located within 1,000 feet, and when siting new sensitive receptors consider TAC sources located within 1,000 feet including, but not limited to, stationary sources, freeways, major roadways (10,000 or greater vehicles per day), truck distribution centers, ports, and rail lines. For this item, sensitive receptors include residential uses, schools, parks, daycare centers, nursing homes, and medical centers.

	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
5. Frequently and for a substantial duration, create or expose sensitive receptors to substantial objectionable odors affecting a substantial number of people? ⁶	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

B. Project Cumulative Impacts

6. During either project construction or operation expose persons, by siting a new source or a new sensitive receptor, to substantial levels of TACs resulting in (a) a cancer risk level greater than 100 in a million, (b) a non-cancer risk (chronic or acute) hazard index greater than 10.0, or (c) annual average PM _{2.5} of greater than 0.8 micrograms per cubic meter? ⁷	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
--	--------------------------	--------------------------	--------------------------	--------------------------	---

C. Plan Impacts

7. Fundamentally conflict with the Bay Area Clean Air Plan (CAP) because the projected rate of increase in vehicle miles traveled (VMT) or vehicle trips is greater than the projected rate of increase in population?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
8. Fundamentally conflict with the CAP because the plan does not demonstrate reasonable efforts to implement control measures contained in the CAP?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
9. Not include special overlay zones containing goals, policies, and objectives to minimize potential Toxic Air Contaminant (TAC) impacts in areas located (a) near existing and planned sources of TACs and (b) within 500 feet of freeways and high-volume roadways containing 100,000 or more average daily vehicle trips?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
10. Not identify existing and planned sources of odors with policies to reduce potential odor impacts.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

⁶ For this item, sensitive receptors include residential uses, schools, daycare centers, nursing homes, and medical centers (but not parks).

⁷ The cumulative analysis should consider the combined risk from all existing and reasonably foreseeable future sources.

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

Explanation:

1-4 and 6-9) The proposed project is construction of an approximately 3000-sq. ft. single-family house on a lot in a developed neighborhood. A small amount of grading and site clearing would be required for construction. Construction would occur over a single building season (less than one year), and would use typical equipment such as haul trucks, light excavation equipment, cement mixers, and small work trucks. Power would be from a construction hookup to existing electrical service on Manzanita Drive. No generators would be required. Therefore, it would not be a regionally significant project that would warrant Intergovernmental Review by the Metropolitan Transportation Commission (MTC). The Project would not have the potential to substantially affect housing, employment, and population projections within the region, which are the basis of the BAAQMD’s 2010 Clean Air Plan (CAP) (BAAQMD Bay Area Clean Air Plan, 2010). Furthermore, emissions generated during construction of the project would be less than BAAQMD emission thresholds with mitigation and, therefore, not a regionally significant air pollutant source. Thus, the Project would not conflict with or obstruct implementation of the CAP. *No impact* would occur.

Project construction activities would produce air pollutant emissions from the following sources: 1) exhaust from diesel-powered construction equipment; 2) fugitive dust (which includes PM10 and PM2.5) generated by grading and other construction activities; and 3) exhaust from construction worker commute vehicles. These emissions would be spread over the construction period, and would be minimal, as discussed below.

A qualitative air quality analysis of the Project’s potential construction impacts for comparison to applicable CEQA significance thresholds was performed using methodologies and assumptions recommended within the Bay Area Air Quality Management District (BAAQMD) CEQA Air Quality Guidelines (May 2012). The Project’s operational emissions would be minimal (fewer than 10 vehicle trips/day plus heating and cooling) and are not discussed in further detail. Air quality pollutants evaluated include carbon monoxide (CO), reactive organic compounds (ROG), nitrogen dioxide (NO2), sulfur dioxide (SO2), particulate matter equal to or less than 10 micrometers (coarse particulates or PM10), and particulate matter equal to or less than 2.5 micrometers (fine particulates or PM2.5).

The BAAQMD’s CEQA Air Quality Guidelines (BAAQMD, 2012) were used to assess the regional significance of the Project’s construction-related emissions of criteria pollutants and the exposure of local sensitive receptors to toxic air contaminants in the construction equipment exhaust. The Guidelines specify that a project generating more than 54 pounds per day of ROG, NOx or PM2.5, or more than 82 pounds per day of PM10, is deemed to have a significant impact on the Bay Area’s regional air quality, whether these emissions are from construction equipment or operational sources (e.g., motor vehicles trips after project completion). Emissions of TACs or PM2.5 affecting sensitive receptors within 1,000 feet of the project site are considered significant if they exceed any of the following thresholds: An excess cancer risk level of more than 10 in one million, or a non-cancer (i.e. chronic or acute) hazard index greater than 1.0; or an incremental increase of greater than 0.3 micrograms per cubic meter (µg/m3) annual average PM 2.5. Construction of a single, 3000-sq. ft. house on an existing urbanized area would result in emissions far below these levels. (*Less than Significant Impact*)

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

Implementation of air quality construction Best Management Practices (BMPs) that are recommended by the BAAQMD for all construction projects, and which are required City of Oakland Conditions of Approval (Condition 19), would further reduce emissions of dust that would be a nuisance and could create localized health impacts. This Condition also would further limit the generation of combustion exhaust and fugitive dust with exposure of local sensitive receptors to elevated ROG, NOx, PM10 and PM2.5 levels during construction. With this Condition, Project construction would be in compliance with basic BAAQMD air quality construction standards. Exposures to Toxic Air Contaminants (TACs) from Project construction activities to the closest off-site sensitive receptors to the site (adjacent neighbors) also would be minimal. The construction of a single house would not conflict with BAAQMD TAC control policies, nor would it contribute measurably to any regional cumulative air pollutant emissions.

Cumulative impacts of development of this lot with a house has already been assumed in City’s development assumptions that have been incorporated into the BAAQMD’s Clean Air Plan (based on General Plan growth projections). *(No Impact)*

- 5, 10) Construction activities may result in minor, short-term odors from construction equipment operation. These are not likely to be noticed off-site. Long-term use of the Project site would not generate any noticeable odors. Therefore the project would not have the potential to create an objectionable smell to the surrounding community or contribute cumulatively to a pre-existing odor. There are no cumulative odor-generating sources that would overlap with project construction emissions. *(Less than Significant Impact)*

Standard Conditions of Approval

Standard Condition of Approval 19: Construction-Related Air Pollution Controls (Dust and Equipment Emissions)

Requirement: The project applicant shall implement all of the following applicable air pollution control measures during construction of the project:

- a. Water all exposed surfaces of active construction areas at least twice daily. Watering should be sufficient to prevent airborne dust from leaving the site. Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water should be used whenever feasible.
- b. Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer).
- c. 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.
- d. Pave all roadways, driveways, sidewalks, etc. within one month of site grading or as soon as feasible. In addition, building pads should be laid within one month of grading or as soon as feasible unless seeding or soil binders are used.
- e. Enclose, cover, water twice daily, or apply (non-toxic) soil stabilizers to exposed stockpiles (dirt, sand, etc.).

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

- f. Limit vehicle speeds on unpaved roads to 15 miles per hour.
- g. Idling times on all diesel-fueled commercial vehicles over 10,000 lbs. 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 the California Code of Regulations). Clear signage to this effect shall be provided for construction workers at all access points.
- h. Idling times on all diesel-fueled off-road vehicles over 25 horsepower shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes and fleet operators must develop a written policy as required by Title 23, Section 2449, of the California Code of Regulations (“California Air Resources Board Off-Road Diesel Regulations”).
- i. All construction equipment shall be maintained and properly tuned in accordance with the manufacturer’s specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- j. Portable equipment shall be powered by electricity if available. If electricity is not available, propane or natural gas shall be used if feasible. Diesel engines shall only be used if electricity is not available and it is not feasible to use propane or natural gas.

Sources:

BAAQMD (Bay Area Air Quality Management District). 2010 *California Environmental Quality Act Guidelines Update, Proposed Thresholds of Significance*.

http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/proposed_thresholds_report_-_may_3_2010_final.pdf?la=en

BAAQMD. 2012. *California Environmental Quality Act (CEQA) Air Quality Guidelines*.

http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines_Final_May%202012.ashx?la=en

BAAQMD. *Ambient Air Quality Standards and Attainment Status*.

<http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status>

BAAQMD. *Clean Air Plan*. <http://www.baaqmd.gov/plans-and-climate/air-quality-plans/current-plans>

BAAQMD. *Current Rules*. <http://www.baaqmd.gov/rules-and-compliance/current-rules>

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

IV. BIOLOGICAL RESOURCES -- Would the project:

- | | | | | | |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | X | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |
| 3. Have a substantial adverse effect on federally protected wetlands (as defined by section 404 of the Clean Water Act) or state protected wetlands, through direct removal, filling, hydrological interruption, or other means? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |
| 4. Substantially interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |
| 5. Fundamentally conflict with any applicable habitat conservation plan or natural community conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |
| 6. Fundamentally conflict with the City of Oakland Tree Protection Ordinance (Oakland Municipal Code (OMC) Chapter 12.36) by removal of protected trees under certain circumstances? ⁸ | <input type="checkbox"/> | <input type="checkbox"/> | X | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Fundamentally conflict with the City of | | | | | |

⁸ Factors to be considered in determining significance include the number, type, size, location and condition of (a) the protected trees to be removed and/or impacted by construction and (b) protected trees to remain, with special considerations given to native trees. Protected trees include *Quercus agrifolia* (California or coast live oak) measuring four inches in diameter at breast height (dbh) or larger, and any other tree measuring nine inches dbh or larger except eucalyptus and *Pinus radiata* (Monterey pine); provided, however, that Monterey pine trees on City property and in development-related situations where more than five Monterey pine trees per acre are proposed to be removed are considered protected trees.

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

Oakland Creek Protection Ordinance (OMC Chapter 13.16) intended to protect biological resources?⁹

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
--------------------------	--------------------------	--------------------------	--------------------------	---

Explanation:

Background

This analysis is based on two reconnaissance-level surveys performed by biologist Michael Wood, Wood Biological Consulting, Inc., and conducted on December 4, 2015 and January 14, 2016. Background information regarding the recorded distribution of special-status species was obtained through a review of databases maintained by the California Natural Diversity Database (CNDDDB, 2016) and California Native Plant Society (CNPS, 2016). The study area is defined as the property boundaries. Focused wildlife or botanical surveys were not conducted as part of this effort; such surveys were not warranted for purposes of this analysis.

The subject parcel is situated at the top of a narrow ridge representing the dividing line between residential neighborhoods and undeveloped natural lands controlled by the East Bay Regional Park District (EBRPD). The narrow parcel is situated on a south-southwest facing slope, between two existing single-family homes. Although the southwest-facing side of the ridge supports extensive residential development and surface streets, it is wooded with a combination of native and non-native trees and brush. A swim and tennis club (The Hills) is located just to the east of the subject parcel.

Although native trees and shrubs are present on site, representing remnants of the habitats present on the north side of the ridge, vegetation on site is dominated by planted, non-indigenous trees and is characterized as anthropogenic woodland. Other habitats occurring on site include landscaped, non-native annual grassland, ruderal and Santa Barbara sedge meadow. No wetlands, surface tributaries, or open channels are cross the study area. A discussion of the vegetative and wildlife habitats present on site follows. The habitat types are described below, and their location and extent are illustrated on Figure 6.

Anthropogenic Woodland and Landscaped

Anthropogenic plant associations such as woodlands and landscaped areas are those dominated by plant species introduced by humans and established or maintained by human disturbances or activities (Holland and Keil, 1990). Some are entirely artificial such as areas under active cultivation (e.g., rowcrops, orchards, vineyards, ornamental landscaping). Others include areas used as rangeland or pasture, and areas influenced by urban or suburban landscaping or plantings. On such sites, the native vegetation has

⁹ Although there are no specific, numeric/quantitative criteria to assess impacts, factors to be considered in determining significance include whether there is substantial degradation of riparian and/or aquatic habitat through (a) discharging a substantial amount of pollutants into a creek, (b) significantly modifying the natural flow of the water, (c) depositing substantial amounts of new material into a creek or causing substantial bank erosion or instability, or (d) adversely impacting the riparian corridor by significantly altering vegetation or wildlife habitat.



Figure 6
Site Habitat

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

typically been removed by clearing in preparation for cultivation, landscaping, or development. Cleared areas that are planted with or colonized by non-indigenous plant species can create distinct communities dominated by annual grasses and forbs, shrubs, or trees. Some of these communities are only perpetuated with direct human intervention such as irrigation or grazing, while others are able to persist on their own. In some situations, introduced non-indigenous species invade native habitats, altering the composition of the native understory or canopy, or both.

Within the study area, anthropogenic woodland dominates the study area. This habitat consists of a mature overstory of Monterey cypress (*Hesperocyparis macrocarpa*). Although native to the Central Coast of California, Monterey cypress is not indigenous to the Oakland Hills and the trees that occur here were planted. Remnants of the native oak/bay woodland that occurs in the vicinity are also present, and include California bay (*Umbellularia californica*) and madrone (*Arbutus menziesii*). Remnants of coastal maritime chaparral, another native plant community that occurs in the vicinity, is coffeeberry (*Frangula californica*) is the federally and state-listed species pallid manzanita; this species is discussed below. Seedlings of coast live oak (*Quercus agrifolia*) are also present. The understory is open, mostly devoid of shrubs, and is dominated by the invasive species veldt grass (*Ehrharta erecta*). Other non-native herbs present commonly encountered include common chickweed (*Stellaria media*), ripgut brome (*Bromus diandrus*), Italian thistle (*Carduus pycnocephalus*), hedgehog dogtail (*Cynosurus echinatus*), field hedge parsley (*Torillis arvensis*), and foxtail barley (*Hordeum murinum* ssp. *leporinum*), among others. Native herbs detected include manroot (*Marah fabaceus*), Santa Barbara sedge (*Carex barbarae*), and bittercress (*Cardamine oligosperma*).

A small area of landscaping is present in the northwestern corner of the property, at the edge of Manzanita Drive. This area is dominated by English holly (*Ilex aquifolium*) and Chinese juniper (*Juniperus chinensis*).

Anthropogenic woodland is not classified by Sawyer et al. (2009). It would be classified as an upland following Cowardin et al. (1979). As a non-native plant association, anthropogenic woodland has no global or State ranking. Unless found to support special-status plant or animal species, or as otherwise regulated under local tree or zoning ordinances, impacts to anthropogenic habitats typically would not be regarded as significant pursuant to CEQA guidelines.

Non-native Annual Grassland

Non-native annual grasslands are generally found in open areas in valleys and foothills throughout coastal and interior California (Holland, 1986). They typically occur on soils consisting of fine-textured loams or clays that are somewhat poorly drained. This vegetation type is dominated by non-native annual grasses and weedy annual and perennial forbs, primarily of Mediterranean origin, that have replaced native perennial grasslands, scrub and woodland habitats as a result of human disturbance. Scattered native wildflowers and grasses, representing remnants of the original vegetation may also be common.

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

On site, non-native annual grassland occurs beneath the canopy of the woodland and in canopy openings. It is dominated by the invasive species veldtgrass. Other non-native herbs present commonly encountered include common chickweed, ripgut brome, Italian thistle, hedgehog dogtail, field hedge parsley, and foxtail barley, among others.

On site, non-native annual grassland does not conform to any of the semi-natural herbaceous alliances described in Sawyer et al. (2009). As a non-native plant community, it has no rarity ranking (Sawyer et al., 2009; CDFG, 2010). Non-native annual grassland would be classified as an upland following Cowardin et al. (1979). Unless found to harbor special-status species, the removal non-native annual grassland would not typically be regarded as significant pursuant to CEQA.

Ruderal Habitat

Ruderal habitat is that from which the native vegetation has been completely removed by grading, cultivation, or other surface disturbances. Left undeveloped, such areas typically become recolonized by invasive exotic species. Scattered native species might recolonize such sites after disturbances have ceased. Ruderal sites are typically dominated by herbaceous species, although scattered woody shrubs and trees may also begin to appear if left undisturbed long enough. Ruderal sites are characteristic of roadsides, fallow agricultural fields, vacant lots, and landslides.

Although much of the study area has been altered historically by clearing, planting and natural regeneration of the vegetation has resulted in the formation of the habitats discussed in this section. Ruderal habitat therefore is comprised of a small patch of weedy, highly disturbed ground that would not be characterized as non-native annual grassland. This habitat is dominated by Italian thistle and poison hemlock (*Conium maculatum*). Also present are veldtgrass and the native shrub coyotebrush (*Baccharis pilularis*).

Ruderal habitat is not specifically described by Sawyer, et al. (2009); it would be classified as upland following Cowardin, et al. (1979). As a non-native plant association, ruderal habitat has no global or State ranking. Unless found to support special-status plant or animal species, or as otherwise regulated features such as drainages or water bodies, impacts to ruderal habitat would not be regarded as significant pursuant to CEQA guidelines.

Santa Barbara Sedge Meadow

Santa Barbara sedge meadows are small to extensive beds dominated by the rhizomatous perennial grass-like Santa Barbara sedge. This sedge species is tolerant of shade and is most commonly found in winter-deciduous woodlands and riparian areas along streambeds, river terraces and levees. It occurs in the Central Coast Ranges, Great Valley, Northern California coast, and the foothills of the Sierra Nevada from sea level to 900m (3000 ft) in elevation.

On site, a single patch of Santa Barbara sedge is present in an opening in the canopy at the southeastern corner of the parcel. Other species present include California blackberry (*Rubus ursinus*) and coyote brush. Scattered individuals of Santa Barbara sedge are also present in the understory of the woodland. Given the lack of wetland hydrology, this

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

patch of Santa Barbara sedge does not meet the federal criteria for a wetland; impacts would not be regulated under the Clean Water Act.

This plant association most closely conforms to white-root beds (*Carex barbarae* Herbaceous Alliance) as described in Sawyer et al. (2009). Santa Barbara sedge is listed as a “facultative” (FAC) wetland indicator species (Lichvar et al., 2014). This plant association has been assigned a rarity ranking of G2/S2, indicating that it is rare and threatened throughout its range (Sawyer et al., 2009; CDFG, 2010).

- 1) The site hosts one special-status plant species and could support several special-status wildlife species.

Special-status plant species.

Special-status plant species include all plant species that meet one or more of the following criteria:¹⁰

- Listed or proposed for listing as threatened or endangered under FESA or candidates for possible future listing as threatened or endangered under the FESA (50 CFR §17.12).
- Listed¹¹ or candidates for listing by the State of California as threatened or endangered under the CA Endangered Species Act (CESA; CFGC §2050 *et seq.*). A species, subspecies, or variety of plant is **endangered** when the prospects of its survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, over-exploitation, predation, competition, disease, or other factors (CFGC §2062). A plant is **threatened** when it is likely to become endangered in the foreseeable future in the absence of special protection and management measures (CFGC §2067).
- Listed as rare under the CA Native Plant Protection Act (CNPPA; CFGC §1900, *et seq.*). A plant is **rare** when, although not presently threatened with extinction, the species, subspecies, or variety is found in such small numbers throughout its range that it may be endangered if its environment worsens (CFGC §1901).
- Meet the definition of rare or endangered under CEQA §15380(b) and (d). Species that may meet the definition of rare or endangered include the following:
- Species considered by the California Native Plant Society (CNPS) to be “rare, threatened or endangered in California” (Lists 1A, 1B and 2);
- Species that may warrant consideration on the basis of local significance or recent biological information;
- Some species included on the CNDDDB’s *Special Plants, Bryophytes, and Lichens List*.
- **Locally significant species**, that is, a species that is not rare from a statewide perspective but is rare or uncommon in a local context such as within a county or region (CEQA §15125 (c)) or is so designated in local or regional plans, policies,

¹⁰ This definition is provided in CDFG (2009).

¹¹ Refer to current online published lists available at: <http://www.dfg.ca.gov/biogeodata>.

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

or ordinances (CEQA Guidelines [Appendix G]). Examples include a species at the outer limits of its known range or a species occurring on an uncommon soil type.

In addition, plant species have been assigned global and State rarity rankings (for a definition of these rankings, see Appendix A). Species with a ranking of G1/S1/T1, G2/S2/T2, or G3/S3/T3 are considered to be critically imperiled, imperiled or vulnerable to extinction within the boundaries of the state (CDFW, 2016). As such, these species may be considered to meet the criteria for listing as endangered, threatened or rare under CESA.¹² Species ranked as G4/S4/T4 or G5/S5/T5 are generally considered common enough to be secure and not at risk of extinction. Impacts to special-status plants species, as thusly defined, would be regarded as significant pursuant to CEQA¹³ and should be addressed in environmental review documents.¹⁴

A total of 62 special-status plant species have been recorded from the nine USGS quadrangles including and surrounding the project site (CNDDDB, 2015; CNPS, 2015; copies of the database printouts are included as Appendix A). Based on the habitats and geographic location of the project site, the presence of 52 of the target special-status plants can be ruled out due to a lack of suitable habitat or substrate, geographic isolation from known populations, or the fact that they would have been detectable during the site reconnaissance.

Of the remaining target special-status species, suitable or marginally suitable habitat is considered to be present on site for a total of nine species. However, these species are not expected to be present due the degree to which the site has been altered historically, the level of dominance by non-native plant species, and/or the fact that one or more of these species is not known from the project area. A complete summary of all of the target species, their rarity rankings, habitat affinities, and potential for occurrence is presented in Appendix A. An explanation of rarity status codes also is presented in Appendix A.

One special-status species, pallid manzanita, is present on the subject parcel. This species is described in more detail below.

Pallid Manzanita

Regulatory Status: Federal: Threatened; State: Endangered; CRPR: 1B.1; CNDDDB: G1/S1

Description: Pallid manzanita (*Arctostaphylos pallida*) is a perennial evergreen shrub in the heath family (Ericaceae). It is an erect shrub growing 2-4 m (6.5-13 ft) tall with rough, gray, or reddish bark. Flowering occurs December through March. Pallid manzanita reproduces only by seed and does not produce basal burls as is the case with many other species of manzanita.

¹² CEQA § 15380(d)

¹³ CEQA § 15065 Mandatory Findings of Significance

¹⁴ CEQA § 15125

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

Pallid manzanita is found in the northwestern extremity of the Diablo Range, at 200-445 m (656-1,460 ft) in elevation. Pallid manzanita is endemic to the San Francisco East Bay. There are two geographic areas that support pallid manzanita: Huckleberry Ridge in Alameda County and Sobrante Ridge in Contra Costa County. Based on the most recent estimate, there are some 1353 pallid manzanita plants remaining in the wild (USFWS, 2015).

Pallid manzanita is a component of the maritime chaparral vegetation type. The primary soil type on which pallid manzanita occurs is Millsholm loam. The Millsholm series consists of shallow, well-drained soils that formed in material weathered from sandstone, mudstone, and shale. Like most manzanitas, pallid manzanita requires fires for regeneration. It is highly intolerant of shading and plants will slowly die when shaded by larger trees and shrubs.

Most of the stands of pallid manzanita are on lands owned by EBRPD and not subject to further residential development. However, approximately 36 percent of all plants are on private property and are at risk from development (USFWS, 2015). This threat is somewhat ameliorated for plants occurring on steep slopes. The species is also threatened by spread of an incurable and virulent non-native pathogen, *Phytophthora cinnamomi*.

Critical Habitat: Critical Habitat has not been designated for pallid manzanita.

Occurrence Data and Habitat Suitability: A total of four occurrences of pallid manzanita have been recorded within 1.6 km (1 mi) of the subject parcel. These records represent one or more stands of plants. The nearest record (Occ. #4) represents numerous stands of pallid manzanita within the boundaries of Huckleberry Botanic Preserve, and along Manzanita Drive. The mapped occurrence of pallid manzanita relative to the subject parcel is shown in Figure 1.

Two mature individuals of pallid manzanita are present on the subject parcel (see Figure 2). Plant #1 consists of a multi-stemmed, rounded shrub approximately 2 m (7 ft) tall and 2.5 m (8 ft) in diameter. It is growing on relatively thin soils on a slight knoll. The specimen is in a relatively open setting, affording it a mostly open exposure. Although the plant appears to be in overall good health, there are many dead or senescent branches within the canopy. In addition, an Atlas cedar (*Cedrus atlantica*) rooted on the property to the east overhangs a portion of the manzanita. Perhaps as much as 25% of the canopy of the manzanita is exhibiting signs of die-back, likely due to fog drip coming off of the cedar's branches. The surrounding ground supports non-native annual grasses such as ripgut brome (*Bromus diandrus*), hedgehog dogtail, silver hairgrass (*Aira caryophyllea*), and veldtgrass. Abundant seedlings of the highly invasive French broom (*Genista monspessulana*) surround the plant. Several seedlings of madrone and coast live oak were also noted.

Plant #1 is proposed to be preserved and incorporated into the front yard of the home. Grading for the new driveway would occur 4 feet outside of the dripline of the canopy to the west of the shrub. A paved entrance walkway would be constructed at-grade between 0 and 1 foot outside of the dripline, also to the west. To the south, grading for the home's

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

foundation would occur 4 feet outside of the dripline of the shrub. During grading, it is possible that this work would require the pruning of roots of the shrub. No pruning of branches is proposed.

Plant #2 consists of a much older specimen rooted near the eastern property boundary (see Figure 2). With a main stem as much as 20 cm (8 in) in diameter, the plant is about 3.7 m (12 ft) tall and 1.8 m (6 ft) wide. Originally mapped as a madrone on the survey map, this pallid manzanita plant is has been greatly impacted by human activity and by shading from the adjacent woodland. As is evident on photos 5-8, branches have been pruned in the distant past and the trunk has been partially buried by grading activities. Although not uncommon in manzanitas, and not necessarily indicative of a plant’s overall health, Plant #2 has numerous large, dead branches and bark striping where longitudinal stem sections have died. This plant is growing entirely in the understory of other trees including madrone, California bay, and Monterey cypress.

Plant #2 is situated near the mid-point of the property’s eastern edge. It will be preserved and incorporated into the side yard of the home. Grading for the home’s foundation would occur 6 feet downslope (west) of the plant’s trunk and 14.5 feet cross-slope (north), also from the plant’s trunk. During grading, it is possible that this work will require the pruning of roots of the shrub. As many as three of the 15 foot-long long branches leaning to the north would be pruned back to facilitate construction, and creating a more even canopy.

No other pallid manzanita plants (seedlings or young plants) are present elsewhere on the property and none was noted growing on adjacent lands in the immediate vicinity of the property. In addition, no other skeletons of pallid manzanitas are present on site.

Potential Project-Related Effects: Pallid manzanita is listed as Threatened under the federal Endangered Species Act (FESA) and as Endangered under the California Endangered Species Act (CESA). Because no federal funding or permitting are involved, impacts to this federally listed species are not restricted under FESA. However, “take” of plants listed under CESA requires consultation with the CDFW and issuance of an Incidental Take Permit (ITP) prior to any activities that would result in take of the species. *Under Section 2081 subdivision (b) of the California Fish and Game Code, the CDFW may issue an ITP for a listed or candidate species if specific criteria are met. These criteria are as follows:*

1. *The authorized take is incidental to an otherwise lawful activity;*
2. *The impacts of the authorized take are minimized and fully mitigated;*
3. *The measures required to minimize and fully mitigate the impacts of the authorized take:*
 - a) *are roughly proportional in extent to the impact of the taking on the species,*
 - b) *maintain the applicant’s objectives to the greatest extent possible, and*
 - c) *may be successfully implemented by the applicant;*

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------------	--	--	------------------------------------	--------------

4. Adequate funding is provided to implement the required minimization and mitigation measures and to monitor compliance with and the effectiveness of the measures; and

5. Issuance of the permit will not jeopardize the continued existence of a CESA-listed species.

The CESA stipulates that every attempt be made to avoid significant impacts to the extent feasible. Given the location of these plants relative to the buildable portion and narrowness of the lot, complete avoidance of the two pallid manzanita plants on site is not practicable. And considering that the root systems of manzanitas are highly sensitive to ground disturbance, even if direct impacts could be avoided, grade alterations near these plants would like result in significant harm to their root systems and long-term viability. As such, indirect impacts would be considered significant pursuant to CEQA.

Grading associated with the proposed project could result in *significant direct and/or indirect impacts* on pallid manzanita. However, with the incorporation of Mitigation Measure BIO-1, below, impacts would be *less-than-significant*.

Special-Status Animal Species.

Special Animals is a broad term used to refer to all the animal taxa tracked by the CNDDDB, regardless of their legal or protection status. This list is also referred to as the list of “species at risk” or “special-status species”. The CDFW considers the taxa on this list to be those of greatest conservation need. Special Animals include those species, subspecies, or Evolutionarily Significant Units (ESU) where at least one of the following conditions applies (CDFW, 2016c):

- Taxa listed or proposed for listing under the FESA or CESA;
- Taxa considered by the CDFW to be a Species of Special Concern (SSC);
- Taxa which meet the criteria for listing, even if not currently included on any list, as described under CEQA Section 15380;
- Taxa that are biologically rare, very restricted in distribution, or declining throughout their range but not currently threatened with extirpation;
- Population(s) in CA that may be peripheral to the major portion of a taxon’s range but are threatened with extirpation in CA;
- Taxa closely associated with a habitat that is declining in CA at a significant rate (e.g. wetlands, riparian, vernal pools, old growth forests, desert aquatic systems, native grasslands, valley shrubland habitats, etc.);
- Taxa designated as a special status, sensitive, or declining species by other State or federal agencies, or a non-governmental organization (NGO) and determined by the CNDDDB to be rare, restricted, declining, or threatened across their range in CA.

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

Many animal species receive protection under the Bald and Golden Eagle Protection Act (BGEPA)¹⁵, the Migratory Bird Treaty Act (MBTA)¹⁶ and the Migratory Bird Treaty Reform Act (MBTRA).¹⁷ The CFGC provides specific language protecting birds and raptors¹⁸, “fully protected birds”¹⁹, “fully protected mammals”²⁰, “fully protected reptiles and amphibians”²¹ and “fully protected fish”²². The CA Code of Regulations (CCR) prohibits the take of fully protected fish²³, certain fur-bearing mammals,²⁴ and restricts the taking of amphibians²⁵ and reptiles²⁶.

In addition, animal species have been assigned global and State rarity rankings (for a definition of these rankings, see Appendix D). Species with a ranking of G1/S1/T1, G2/S2/T2, or G3/S3/T3 are considered to be critically imperiled, imperiled or vulnerable to extinction within the boundaries of the state, respectively (CDFW, 2016b). As such, these species may be considered to meet the criteria for listing as endangered, threatened or rare under CESA.²⁷ Species ranked as G4/S4/T4 or G5/S5/T5 are generally considered common enough to be secure and not at risk of extinction. Impacts to special-status animal species, as thusly defined, would be regarded as significant pursuant to CEQA²⁸ and should be addressed in environmental review documents.²⁹

A total of 56 special-status animal species have been recorded from the eight 7.5-minute USGS quadrangles including and surrounding the project site (CNDDDB; 2016; CNPS, 2016). Based on the habitats and geographic location of the project site, the presence of 42 of the target special-status animals can be ruled out due to a lack of suitable habitat or substrate, geographic isolation from known populations, or the fact that they would have been detectable during the site reconnaissance.

Of the remaining target special-status species, suitable or marginally suitable habitat is considered to be present on site for a total of 14 species, 12 of which are not expected to occur on site due to the degraded nature of the habitats on site or the fact that it is geographically removed from known occurrences of the species of concern. Two special-status bird species, white-tailed kite and Cooper’s hawk, are considered to potentially

¹⁵ 16 USC 668, et seq.

¹⁶ 16 U.S.C. 703-712

¹⁷ 70 FR 12710

¹⁸ §§ 3503 and 3503.5

¹⁹ CFGC § 3511

²⁰ CFGC § 4700

²¹ CFGC § 5050

²² CFGC § 5515

²³ 14 CCR § 5.93

²⁴ 14 CCR § 460

²⁵ 14 CCR § 5.05

²⁶ 14 CCR § 5.60

²⁷ CEQA Guidelines § 15380(d)

²⁸ CEQA Guidelines § 15065(a)

²⁹ CEQA Guidelines § 15065(b), (c)

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

nest on site. In addition, numerous species of migratory birds could nest on site. A summary of the special-status plant species evaluated as part of this analysis, along with their habitat affinities and potential for occurrence on site, is presented in Appendix A.

Although not detected, the potential exists for white-tailed kite (*Elanus leucurus*) and Cooper’s hawk (*Accipiter cooperii*) to occur on site. If a nest and/or actively breeding white-tailed kites or Cooper’s hawks are present on site or the project vicinity, project implementation could result in *potentially significant impact* on the species. With the incorporation of Standard Condition of Approval 26 and Mitigation Measure BIO-3, below, impacts would be *less-than-significant*.

Although no active nesting was detected at the time of the most recent survey, the potential exists for migratory birds to breed on site. If nests and/or active breeding by migratory birds occur on site or the project vicinity, project implementation could result in *potentially significant impact* on the species. With the incorporation of Standard Condition 26 and Mitigation Measure BIO-3, below, impacts to nesting birds would be *less-than-significant*.

Due to its high level of significance regionally, it is worth providing separate mention of one federally and State-listed threatened species known from the project region. The Alameda whipsnake (*Masticophis lateralis euryxanthus*) inhabits east, southeast, south, and southwest facing slopes supporting mixed chaparral and coastal scrub, as well as annual grassland and oak woodlands adjacent to scrub habitats, with rock outcrops. Designated critical habitat for the species is present immediately to the north of the subject parcel, on lands owned by the East Bay Regional Parks District. No suitable breeding or foraging habitat is present on site and the likelihood of an individual snake residing on site is highly unlikely due to the very limited amount of cover and foraging opportunities compared to lands to the north. The subject parcel is not located in designated Critical Habitat for Alameda whipsnake. As such Standard Condition of Approval 28 does not apply. (*Less than Significant*)

- 2) Special-status natural communities are those that are considered rare in the region, support special-status plant or wildlife species, or receive regulatory protection under the Clean Water Act (CWA)³⁰, Lake and Streambed Alteration Program (LSAP)³¹, and/or the Porter-Cologne Water Quality Control Act (Porter-Cologne).³² A number of communities have been designated as rare and these communities are given the highest inventory priority (CNDDDB, 2015; CDFG, 2010b). Vegetation alliances given a rarity ranking of G1/S1, G2/S2 or G3/S3 are considered to be of high inventory priority by the CNDDDB; impacts would be considered significant pursuant to CEQA. Alliances ranked as G4/S4 or G5/S5 are generally considered common enough to not be of concern; impacts would not normally be considered as significant pursuant to CEQA (for a definition of rarity rankings, see Appendix A.

³⁰ CWA § 401 and § 404

³¹ CFGC Division 2, Chapter 6, §§ 1600-1607

³² CA Water Code §§ 13000-14920

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

Thusly defined, one natural community present on site, Santa Barbara sedge meadow, meets the criteria for consideration as having special status. No wetlands, riparian habitats, or waters of the United States/waters of the State are present within the study area. Special-status natural communities recorded from the project region include maritime northern coastal saltmarsh, northern maritime chaparral, serpentine bunchgrass grassland and valley needlgrass grassland (CNDDDB, 2015). None of these natural communities occurs on the subject parcel.

Project implementation would not result in any direct or indirect impacts to special-status natural communities. (*No Impact*)

- 3) No waters of the U.S. or wetlands are present on site. Project implementation would not result in any direct, indirect or cumulative impacts on waters of the U.S. or wetlands. (*No Impact*)
- 4) Under CEQA, impacts on wildlife movement are considered significant if a project would interfere substantially with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Although lands to the north are open, undeveloped, and support extensive native habitats, the subject parcel consists of a narrow undeveloped plot of land sandwiched between existing single-family homes in a residential neighborhood. While it is expected that such species as mule deer, raccoon, Virginia possum and striped skunk traverse the property to access foraging opportunities associated with human development, the property is not considered to serve as a significant wildlife migratory corridor. The project would therefore have *no impact*.

- 5) The proposed project would not conflict with any approved local, regional, or state habitat conservation plan, as no such plan apply to the project area. There would be *no impact*.
- 6) One adopted local ordinance that applies to the proposed project. Under the City of Oakland's Protected Tree Ordinance³³, a permit must be obtained before removing any protected trees. A permit is also required if work might damage or destroy a protected tree. Protected trees include Coast Live Oaks four inches or larger in diameter, measured four and a half feet above the ground, or any other species nine inches in diameter or larger; Eucalyptus and Monterey Pine trees on private property are exempt.

The City of Oakland requires a tree removal permit for all protected trees and for those 9" in diameter or greater at breast height (dbh). In conjunction with the original site plan and building elevation designs submitted to the City of Oakland on March 30, 2016, which did not propose to preserve the two pallid manzanita plants on the property, a tree removal permit application for three trees was submitted. The permit was approved by the City's Public Works Agency on May 3, 2015 (permit # T1500031). However, based on the relocation and redesign of the proposed home to preserve the two pallid manzanita plants on the property, a revised tree removal permit application was submitted on April 18,

³³ Oakland Municipal Code, Chapter 12.36

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

2016. The revised application requested a total of 8 trees of 9" dbh or greater to be removed. Correspondingly, an Indirect Take Permit (ITP) Application, dated March 23, 2016, was submitted to the California Department of Fish and Wildlife for proposed grading in the proximity of the two pallid manzanitas, involving potential pruning of the roots of the two plants and pruning of one branch on the rear plant. The ITP application identifies 16 trees to be removed: 6 trees for construction of the home due to conflict with the building footprint and/or paved areas and 10 trees to be removed to enhance the habitat of the existing pallid manzanitas given the heavy shading and fog drip of these overstory trees onto the manzanita plants below. Of the 16 trees proposed to be removed, 10 are of a size requiring a tree removal permit from the City. The City's Public Works Agency approved the revised application on May 23, 2016.

This tree loss is a *potentially significant* impact. With the incorporation of the City's Standard Condition of Approval 27, Conditions of Approval listed in the May 23, 2016 Tree Permit Decision, and Mitigation Measures BIO 1 and BIO-3, below, impacts would be *less than significant*.

- 7) As described in Item 1, above, there are no creeks or drainages regulated by the Oakland Creek Protection Ordinance on the project site. (*No Impact*)

Standard Conditions of Approval

Standard Condition of Approval 26: Tree Removal During Bird Breeding Season

Requirement: To the extent feasible, removal of any tree and/or other vegetation suitable for nesting of birds shall not occur during the bird-breeding season of February 1 to August 15 (or during December 15 to August 15 for trees located in or near marsh, wetland, or aquatic habitats). If tree removal must occur during the bird-breeding season, all trees to be removed shall be surveyed by a qualified biologist to verify the presence or absence of nesting raptors or other birds. Pre-removal surveys shall be conducted within 15 days prior to the start of work and shall be submitted to the City for review and approval. If the survey indicates the potential presence of nesting raptors or other birds, the biologist shall determine an appropriately sized buffer around the nest in which no work will be allowed until the young have successfully fledged. The size of the nest buffer will be determined by the biologist in consultation with the California Department of Fish and Wildlife, and will be based to a large extent on the nesting species and its sensitivity to disturbance. In general, buffer sizes of 200 feet for raptors and 50 feet for other birds should suffice to prevent disturbance to birds nesting in the urban environment, but these buffers may be increased or decreased, as appropriate, depending on the bird species and the level of disturbance anticipated near the nest.

When Required: Prior to removal of trees

Initial Approval: Bureau of Building

Monitoring/Inspection: Bureau of Building

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

Standard Condition of Approval 27: Tree Permit

a. Tree Permit Required

Requirement: Pursuant to the City’s Tree Protection Ordinance (OMC chapter 12.36), the project applicant shall obtain a tree permit and abide by the conditions of that permit.

When Required: Prior to approval of construction-related permit

Initial Approval: Permit approval by Public Works Department, Tree Division; evidence of approval submitted to Bureau of Building

Monitoring/Inspection: Bureau of Building

b. Tree Protection During Construction

Requirement: Adequate protection shall be provided during the construction period for any trees that are to remain standing, including the following, plus any recommendations of an arborist:

- i. Before the start of any clearing, excavation, construction, or other work on the site, every protected tree deemed to be potentially endangered by said site work shall be securely fenced off at a distance from the base of the tree to be determined by the project’s consulting arborist. Such fences shall remain in place for duration of all such work. All trees to be removed shall be clearly marked. A scheme shall be established for the removal and disposal of logs, brush, earth and other debris that will avoid injury to any protected tree.
- ii. Where proposed development or other site work is to encroach upon the protected perimeter of any protected tree, special measures shall be incorporated to allow the roots to breathe and obtain water and nutrients. Any excavation, cutting, filing, or compaction of the existing ground surface within the protected perimeter shall be minimized. No change in existing ground level shall occur within a distance to be determined by the project’s consulting arborist from the base of any protected tree at any time. No burning or use of equipment with an open flame shall occur near or within the protected perimeter of any protected tree.
- iii. No storage or dumping of oil, gas, chemicals, or other substances that may be harmful to trees shall occur within the distance to be determined by the project’s consulting arborist from the base of any protected trees, or any other location on the site from which such substances might enter the protected perimeter. No heavy construction equipment or construction materials shall be operated or stored within a distance from the base of any protected trees to be determined by the project’s consulting arborist. Wires, ropes, or other devices shall not be attached to any protected tree, except as needed for support of the tree. No sign, other than a tag showing the botanical classification, shall be attached to any protected tree.
- iv. Periodically during construction, the leaves of protected trees shall be thoroughly sprayed with water to prevent buildup of dust and other pollution that would inhibit leaf transpiration.
- v. If any damage to a protected tree should occur during or as a result of work on the site, the project applicant shall immediately notify the Public Works

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

Department and the project’s consulting arborist shall make a recommendation to the City Tree Reviewer as to whether the damaged tree can be preserved. If, in the professional opinion of the Tree Reviewer, such tree cannot be preserved in a healthy state, the Tree Reviewer shall require replacement of any tree removed with another tree or trees on the same site deemed adequate by the Tree Reviewer to compensate for the loss of the tree that is removed.

- vi. All debris created as a result of any tree removal work shall be removed by the project applicant from the property within two weeks of debris creation, and such debris shall be properly disposed of by the project applicant in accordance with all applicable laws, ordinances, and regulations.

When Required: During construction

Initial Approval: Public Works Department, Tree Division

Monitoring/Inspection: Bureau of Building

c. Tree Replacement Plantings

Requirement: Replacement plantings shall be required for tree removals for the purposes of erosion control, groundwater replenishment, visual screening, wildlife habitat, and preventing excessive loss of shade, in accordance with the following criteria:

- i. No tree replacement shall be required for the removal of nonnative species, for the removal of trees which is required for the benefit of remaining trees, or where insufficient planting area exists for a mature tree of the species being considered.
- ii. Replacement tree species shall consist of *Sequoia sempervirens* (Coast Redwood), *Quercus agrifolia* (Coast Live Oak), *Arbutus menziesii* (Madrone), *Aesculus californica* (California Buckeye), *Umbellularia californica* (California Bay Laurel), or other tree species acceptable to the Tree Division.
- iii. Replacement trees shall be at least twenty-four (24) inch box size, unless a smaller size is recommended by the arborist, except that three fifteen (15) gallon size trees may be substituted for each twenty-four (24) inch box size tree where appropriate.
- iv. Minimum planting areas must be available on site as follows:
 - For *Sequoia sempervirens*, three hundred fifteen (315) square feet per tree;
 - For other species listed, seven hundred (700) square feet per tree.
- v. In the event that replacement trees are required but cannot be planted due to site constraints, an in lieu fee in accordance with the City’s Master Fee Schedule may be substituted for required replacement plantings, with all such revenues applied toward tree planting in city parks, streets and medians.
- vi. The project applicant shall install the plantings and maintain the plantings until established. The Tree Reviewer of the Tree Division of the Public Works Department may require a landscape plan showing the replacement plantings and the method of irrigation. Any replacement plantings which

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

fail to become established within one year of planting shall be replanted at the project applicant's expense.

When Required: Prior to building permit final

Initial Approval: Public Works Department, Tree Division

Monitoring/Inspection: Bureau of Building

Mitigation Measures

The measures outlined below shall be implemented to avoid, minimize, or mitigation impacts to biological resources that would result from project implementation. With the incorporation of the following measures, significant impacts on these species would be reduced to a less-than-significant level.

BIO-1: Pallid Manzanita.

The project biologist has consulted extensively with CDFW regarding the proposed project's impacts on the pallid manzanitas. Numerous measures have been undertaken in response to concerns raised by the CDFW, including refining the project design, conducting additional analyses, and developing appropriate impact avoidance, minimization, and mitigation measures. First and foremost, the siting of the project footprint was modified to avoid the need to remove the two pallid manzanita plants. At the suggestion of the project biologist, the applicants agreed to incorporation measures to enhance the habitat supporting the pallid manzanitas occurring on site; specifically, the removal of ten additional trees currently shading the plants. At the request of the CDFW, a shading study was performed to evaluate the pre- and post-construction conditions relative to the pallid manzanita plants. The results of this study shows that the overall light conditions for both pallid manzanita plants are improved compared to the existing conditions. In response to concerns raised by the CDFW that the plants could be subjected to "sun shock" as a result of being suddenly exposed to greatly increased sun exposure, the applicants proposed constructing temporary shade structures over each plant. At the request of the CDFW, a densitometer study was performed to analyze the existing tree canopy over each plant as a means of better estimating the percent shade that should be temporarily provided over each plant after the removal of the trees. Finally, as requested by the CDFW, the applicant commissioned the performance of an evaluation of suitable habitat for pallid manzanita present on site and an assessment of that habitat which would be disturbed as a result of project implementation.

Even with the incorporation of project redesign and the performance of the analyses described above, it was determined that the proposed project could still result in significant adverse effects on pallid manzanita. As a result, application for an ITP is required.

The applicant has applied for an Incidental Take Permit that includes conditions to mitigate for potentially significant impacts to two pallid manzanita plants; any land-clearing activities that would result in direct or indirect impacts on these plants may not proceed until issuance of the final ITP. CDFW has reviewed current project plans and biological resources studies and has developed draft conditions of approval for the ITP, which are summarized and incorporated into this Initial Study below. All protective and

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

mitigation measures outlined in the ITP shall be implemented. With the incorporation of these measures, impacts to the pallid manzanitas would be reduced to a less-than-significant level.

1. General Provisions:

- a. Prior to the initiation of work, the Permittee shall designate a liaison to communicate with the CDFW and to ensure compliance with the ITP. Written notification shall be provided to the CDFW prior to the commencement of work.
- b. A project biologist shall be designated and his/her qualifications shall be submitted to the CDFW for review and approval. The project biologist shall have full authority to stop any activity that does not comply with the ITP. Other responsibilities of the project biologist shall be to present an education program to all personnel working on site, maintain a construction monitoring notebook, and delineate limits of work and identify protective measures.
- c. During construction, contractor shall implement Best Management Practices (BMPs) including but not limited to trash abatement, dust control, erosion control, hazardous materials, and removal and disposal of all construction debris.

2. Monitoring, Notification and Reporting

- a. CDFW shall be notified at least 14 days prior to the commencement of work. CDFW shall be notified within 24 hours of any failure to fully comply with the conditions of the ITP.
- b. The project biologist shall perform daily monitoring during the performance of covered activities to ensure compliance with the ITP, and shall maintain a daily monitoring log. A weekly compliance report shall be submitted to the CDFW.
- c. An annual status report shall be submitted to the CDFW summarizing the performance of all covered activities and monitoring observations.
- d. A final mitigation report shall be submitted to the CDFW within 45 days of the completion of all mitigation measures required under the ITP.

3. Take Minimization Measures

- a. To prevent the spread of the soil-borne pathogen *Phytophthora cinnamomi*, work crews shall be trained in proper sanitization techniques. Shoes, pruning equipment, and digging tools and equipment shall be disinfected prior to and following work.
- b. Only the minimum amount of roots and branches of pallid manzanita plants shall be removed. Pruning shall be performed after the growing season and

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

prior to flowering (i.e., August-October), unless cuttings are to be used for propagation, which shall be collected November-January.

- c. Removal of trees surrounding the pallid manzanita plants shall be performed in a manner that prevents ground disturbance and ensures that they are not damaged by falling debris. Tree removal shall occur during the dry season (i.e., July-November). Stumps of species likely to resprout shall be tarped to prevent regrowth; stumps shall be inspected for two years and any sprouts shall be recut.
 - d. Temporary shade structures shall be built over each pallid manzanita plant to protect them from sun shock. Plant #1 shall be screened with 40% shade cloth; Plant #2 shall be screened with 60% shade cloth. The shade structures shall be left in place for the first full growing season following tree removal. After the first year of monitoring, based on evidence of plant vigor and the post-construction conditions, it would be determined if the shade structures could be safely removed.
 - e. Annual monitoring shall be performed each spring for a period of no more than five years, as determined by CDFW, to assess changes in the health of the two pallid manzanita plants.
 - f. Pallid manzanita plants shall be protected in perpetuity from fog drip from surrounding roof eaves and adjacent vegetation, and from invasive plants.
4. Habitat Enhancement, Propagation and Outplanting
- a. Invasive plant species shall be removed from a 50-foot buffer of each pallid manzanita plant. Such species include but are not limited to Scotch broom (*Cytisus scoparius*), French broom (*Genista monspessulana*), English ivy (*Hedera helix*), and firethorn (*Pyracantha angustifolia*).
 - b. Competing trees and shrubs shall be removed to produce an open canopy over each pallid manzanita plant and suitable habitat.
 - c. Permittee shall coordinate with a CDFW-approved botanical garden or research facility either fund relevant research or undertake a propagation and outplanting program, as approved by CDFW. For the propagation and outplanting program, Permittee shall provide funding for the collection of cuttings from portions of the pallid manzanita plants proposed to be pruned, for the cultivation of plants in the nursery, outplanting, and monitoring for up to a five-year period, to be determined by CDFW.
5. Performance Security
- a. A security in the amount of \$35,000 shall be provided in the form of an irrevocable letter of credit approved and held by the CDFW prior to the initiation of any covered activity.

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

These mitigation measures would reduce impacts to pallid manzanitas to a less-than-significant level.

BIO-2: Special-status and Migratory Bird Species.

In addition to the measures provided in Standard Condition 26, above, the following avoidance measures shall be required to avoid the project’s potential effects on white-tailed kite, Cooper’s hawk, and other special-status and migratory bird species.

- a. Prior to the removal or significant pruning of any trees, they shall be inspected by a qualified biologist for the presence of raptor nests. This is required regardless of season. If a suspected raptor nest is discovered, the CDFW shall be notified. Pursuant to CFGC Section 3503.5, raptor nests, whether or not they are occupied, may not be removed until approval is granted by the CDFW.
- b. If clearing and grubbing, and tree removal or pruning are to be conducted outside of the breeding season (i.e., September 1 through January 31), no preconstruction surveys for nesting migratory birds is necessary.
- c. If clearing and grubbing, and tree removal or pruning are to be conducted during the breeding season (i.e., February 1 through August 31), a preconstruction nesting bird survey shall be conducted. The survey shall be performed by a qualified biologist no more than two weeks prior to the initiation of work. If no nesting or breeding activity is observed, work may proceed without restrictions. To the extent allowed by access, all active nests identified within 76 m (250 ft) for raptors and 15 m (50 ft) for passerines shall be mapped.
- d. For any active nests found near the construction limits (76 m [250 ft] for raptors and 15 m [50 ft] for passerines) the Project Biologist shall make a determination as to whether or not construction activities are likely to disrupt reproductive behavior. If it is determined that construction is unlikely to disrupt breeding behavior, construction may proceed. If it is determined that construction may disrupt breeding, the no-construction buffer zone shall be expanded; avoidance is the only mitigation available. The ultimate size of the no-construction buffer zone may be adjusted by the Project Biologist based on the species involved, topography, lines of site between the work area and the nest, physical barriers, and the ambient level of human activity.

If it is determined that construction activities are likely to disrupt raptor breeding, construction activities within the no-construction buffer zone may not proceed until the project biologist determines that the nest is long longer occupied.

- e. If maintenance of a no-construction buffer zone is not feasible, the Project Biologist shall monitor the nest(s) to document breeding and rearing behavior of the adult birds. If it is determined that construction-related activities are likely to cause nest abandonment, work shall cease

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

immediately and the CDFW and/or the USFWS Division of Migratory Bird Management shall be contacted for guidance. Work may not resume until an agreement has been reached with the authorities specifying the conditions under which work may proceed.

With the incorporation of these measures, any potential impacts on special-status or other migratory birds would be reduced to a less-than-significant level.

BIO-3: Protected Trees.

Prior to the removal of any protected trees, the applicant shall apply for and obtain a tree removal permit from the City of Oakland. As stipulated under the City’s tree ordinance, replacement trees shall be planted onsite. Tree replacements are not required for the removal of nonnative species, for the removal of trees which is required for the benefit of remaining trees, or where insufficient planting area exists for a mature tree of the species being considered. As mitigation for the loss of two native madrone trees, the following measures shall be implemented:

- a. A minimum of two replacement trees shall be planted on site.
- b. Suitable species for tree replacements shall consist of coast redwood, coast live oak, madrone, California buckeye, or California bay.
- c. Replacement trees shall be of twenty-four (24) inch box size, except that three fifteen (15) gallon size trees may be substituted for each twenty-four (24) inch box size tree where appropriate.
- d. Minimum planting areas for replacement trees shall be a minimum of 350 square feet for coast redwood or 700 square feet for coast live oak, madrone, California buckeye, or California bay.

Sources:

CalBiota. A California Species Compendium. Version 2.1. Electronic database of the biota of California. Created by Michael Wood, Walnut Creek.

California Department of Fish and Game (CDFG). 2010. *List of Terrestrial Natural Communities Recognized by the California Natural Diversity Database*. Natural Diversity Database, Wildlife and Habitat Data Analysis Branch. September. Available online at <http://www.dfg.ca.gov/biogeodata/vegcamp/pdfs/natcomlist.pdf>.

California Department of Fish and Wildlife (CDFW). 2016a. *Special Vascular Plants, Bryophytes, and Lichens List*. Biogeographic Data Branch, Natural Diversity Database. Quarterly publication. Jan. 126 pp. Available online at <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109383&inline=1>

_____. 2016b. *State and Federally Listed Endangered, Threatened, and Rare Plants of California*. Biogeographic Data Branch, Natural Diversity Database. Quarterly

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

publication. 7 pp. July. Available online at <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109390&inline=1>

_____. 2016c. *Special Animals List*. Natural Diversity Database. July. 65 pp. Available online at <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406&inline=1>

_____. 2016d. *State and Federally Listed Endangered and Threatened Animals of California*. Biogeographic Data Branch, Natural Diversity Database. July. 14 pp. Available online at <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109405&inline=1>

California Native Plant Society (CNPS). 2016. *Inventory of Rare and Endangered Plants* (online edition, v8-02). Query for the Las Trampas Ridge, Hayward, San Leandro, Clayton, Diablo, Dublin, Walnut Creek, Briones Valley, and Oakland East USGS 7.5' Quadrangles. California Native Plant Society, Sacramento, CA. Accessed January 13 at www.rareplants.cnps.org/

California Natural Diversity Database (CNDDDB). 2016. Query for the Oakland East, Hayward, San Leandro, Oakland West, Richmond, Hunters Point, Las Trampas Ridge, Walnut Creek, and Briones Valley USGS 7.5' Quadrangles. RareFind 5.0. California Department of Fish and Wildlife, Biogeographic Data Branch. Sacramento, California. Information dated January 5.

Sawyer, J.O., T. Keeler-Wolf, and J.M. Evans. 2009. *A Manual of California Vegetation* (2nd edition). California Native Plant Society, Sacramento. 1300 pp. Available on line at http://www.cnps.org/cnps/vegetation/manual_2ed.php.

United States Army Corps of Engineers (USACE). 2006. *Distribution of Ordinary High Water Mark (OHWM) Indicators and their Reliability in Identifying the Limits of "Waters of the United States" in Arid Southwest Channels*. Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory, Technical Report TR-06-05. February. Available online at: http://www.crrel.usace.army.mil/techpub/CRREL_Reports/reports/TR06-5.pdf.

United States Environmental Protection Agency and U.S. Army Corps of Engineers (USEPA/USACE). 2008. *Revised Guidance on Clean Water Act Jurisdiction Following the Supreme Court Decision in Rapanos v. U.S. and Carabell v. U.S.* December 2. Available online at: http://www.usace.army.mil/cw/cecwo/reg/cwa_guide/cwa_juris_2dec08.pdf.

United States Fish and Wildlife Service (USFWS). 2015. *Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Calaveras Reservoir, Niles, La Costa Valley, Mount Day, Lick Observatory, Mendenhall Springs, Milpitas, San Jose West, and San Jose East USGS 7.5' Quadrangles*. Threatened and Endangered Species System (TESS) printout. Data current as of March 10. Available online at: http://www.fws.gov/sacramento/ES_Species/Lists/es_species_lists-overview.htm

Wood Biological Consulting. 2016. *Assessment of Project Effects on Pallid Manzanita and Protection Measures, Manzanita Drive, Oakland*. Letter report prepared for David

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------------	--	--	------------------------------------	--------------

Montalbo and Tambri Heyden. June 17, 2016.

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

V. CULTURAL RESOURCES -- Would the project?

1. Cause a substantial adverse change in the significance of an historical resource as defined in CEQA Guidelines section 15064.5? Specifically, a substantial adverse change includes physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be “materially impaired.” The significance of an historical resource is “materially impaired” when a project demolishes or materially alters, in an adverse manner, those physical characteristics of the resource that convey its historical significance and that justify its inclusion on, or eligibility for inclusion on an historical resource list (including the California Register of Historical Resources, the National Register of Historical Resources, Local Register, or historical resources survey form (DPR Form 523) with a rating of 1-5).

2. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines section 15064.5?

3. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

4. Disturb any human remains, including those interred outside of formal cemeteries?

Explanation:

1-3) The project site is a small infill parcel near the crest of the Oakland Hills. Due to its size, past disturbance, and location, prehistoric artifacts are very unlikely to occur on the site. The site has never been developed, and there is minimal potential for historic artifacts on the site. Similarly, development of the house on a small portion of the site is unlikely to affect any paleontological resources. The City of Oakland’s Standard

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

Conditions 29 and 31 would further reduce the potential of any impacts to cultural resources from the project. (*Less than Significant*)

Standard Condition 29: Archaeological and Paleontological Resources – Discovery During Construction

Requirement: Pursuant to CEQA Guidelines section 15064.5(f), in the event that any historic or prehistoric subsurface cultural resources are discovered during ground disturbing activities, all work within 50 feet of the resources shall be halted and the project applicant shall notify the City and consult with a qualified archaeologist or paleontologist, as applicable, to assess the significance of the find. In the case of discovery of paleontological resources, the assessment shall be done in accordance with the Society of Vertebrate Paleontology standards. If any find is determined to be significant, appropriate avoidance measures recommended by the consultant and approved by the City must be followed unless avoidance is determined unnecessary or infeasible by the City. Feasibility of avoidance shall be determined with consideration of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery, excavation) shall be instituted. Work may proceed on other parts of the project site while measures for the cultural resources are implemented.

In the event of data recovery of archaeological resources, the project applicant shall submit an Archaeological Research Design and Treatment Plan (ARDTP) prepared by a qualified archaeologist for review and approval by the City. The ARDTP is required to identify how the proposed data recovery program would preserve the significant information the archaeological resource is expected to contain. The ARDTP shall identify the scientific/historic research questions applicable to the expected resource, the data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. The ARDTP shall include the analysis and specify the curation and storage methods. Data recovery, in general, shall be limited to the portions of the archaeological resource that could be impacted by the proposed project. Destructive data recovery methods shall not be applied to portions of the archaeological resources if nondestructive methods are practicable. Because the intent of the ARDTP is to save as much of the archaeological resource as possible, including moving the resource, if feasible, preparation and implementation of the ARDTP would reduce the potential adverse impact to less than significant. The project applicant shall implement the ARDTP at his/her expense.

In the event of excavation of paleontological resources, the project applicant shall submit an excavation plan prepared by a qualified paleontologist to the City for review and approval. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and/or a report prepared by a qualified paleontologist, as appropriate, according to current professional standards and at the expense of the project applicant.

- When Required: During construction
- Initial Approval: N/A
- Monitoring/Inspection: Bureau of Building

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

Standard Condition 31: Human Remains – Discovery During Construction

Requirement: Pursuant to CEQA Guidelines section 15064.5(e)(1), in the event that human skeletal remains are uncovered at the project site during construction activities, all work shall immediately halt and the project applicant shall notify the City and the Alameda County Coroner. If the County Coroner determines that an investigation of the cause of death is required or that the remains are Native American, all work shall cease within 50 feet of the remains until appropriate arrangements are made. In the event that the remains are Native American, the City shall contact the California Native American Heritage Commission (NAHC), pursuant to subdivision (c) of section 7050.5 of the California Health and Safety Code. If the agencies determine that avoidance is not feasible, then an alternative plan shall be prepared with specific steps and timeframe required to resume construction activities. Monitoring, data recovery, determination of significance, and avoidance measures (if applicable) shall be completed expeditiously and at the expense of the project applicant.

When Required: During construction

Initial Approval: N/A

Monitoring/Inspection: Bureau of Building

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

VI. GEOLOGY AND SOILS -- Would the project:

1. Expose people or structures to substantial risk of loss, injury, or death involving:

- Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map or Seismic Hazards Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?³⁴
- Strong seismic ground shaking?
- Seismic-related ground failure, including liquefaction, lateral spreading, subsidence, or collapse?
- Landslides?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>

2. Result in substantial soil erosion or the loss of topsoil, creating substantial risks to life, property, or creeks/waterways?

<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	---	--------------------------	--------------------------

3. Be located on expansive soil, as defined in section 1802.3.2 of the California Building Code (2007, as it may be revised), creating substantial risks to life or property?

<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	---	--------------------------	--------------------------

4. Be located above a well, pit, swamp, mound, tank vault, or unmarked sewer line, creating substantial risks to life or property?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
--------------------------	--------------------------	--------------------------	--------------------------	---

5. Be located above landfills for which there is no approved closure and post-closure plan, or unknown fill soils, creating substantial risks to life or property?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
--------------------------	--------------------------	--------------------------	--------------------------	---

6. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems

³⁴ Refer to California Geological Survey 42 and 117 and Public Resources Code section 2690 et. seq.

	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

Explanation:

- 1) Portions of the site may be subject to landslide or liquefaction (according to the City of Oakland’s Seismic Safety Element (Figure 7.5). Potential landslide or liquefaction impacts would be reduced to a less-than-significant level by application of the City’s Standard Condition 36. (*Less than Significant Impact with Standard Conditions of Approval*)

According to the City of Oakland’s Seismic Safety Element (Figure 7.5), the project site is not within an active fault zone or seismic hazards zone, nor is it in a liquefaction hazard zone. However, the proposed house would likely be subject to intense seismic shaking during its lifetime. The house would be required to be constructed to the applicable design standards incorporated into most recent City-adopted Building Code, which includes seismic design requirements. Compliance with Standard Conditions 33 and 34 would further reduce seismic hazards. (*Less than Significant Impact*)

- 2) Project construction would require grading and clearing of a portion of the site. This could result in erosion of soils from the site. This potentially significant impact would be reduced to a less-than-significant level by application of the City’s Standard Condition 45. (*Less than Significant Impact with Standard Conditions of Approval*)
- 3) The project site may contain expansive soils. Any hazards associated with those soils would be reduced to a less-than-significant level through implementation of Standard Conditions 33 and 34. (*Less than Significant Impact with Standard Conditions of Approval*)
- 4) There are no wells, vaults, pits, swamps, mounds, tanks, or unmarked sewer lines on the property. Therefore there would be *no impact* to residents from these potential hazards.
- 5) There are no current or old landfills on the property. Therefore there would be *no impact* to residents from these potential hazards.
- 6) The proposed project would be connected to municipal water and sewer systems, so no septic systems would be required. Therefore the project would have *no impact* with respect to septic suitability of the soils.

Standard Condition 33: Construction-Related Permit(s)

Requirement: The project applicant shall obtain all required construction-related permits/approvals from the City. The project shall comply with all standards, requirements and conditions contained in construction-related codes, including but not limited to the Oakland Building Code and the Oakland Grading Regulations, to ensure structural integrity and safe construction.

When Required: Prior to approval of construction-related permit

Initial Approval: Bureau of Building

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------------	--	--	------------------------------------	--------------

Monitoring/Inspection: Bureau of Building

Standard Condition 34: Soils Report

Requirement: The project applicant shall submit a soils report prepared by a registered geotechnical engineer for City review and approval. The soils report shall contain, at a minimum, field test results and observations regarding the nature, distribution and strength of existing soils, and recommendations for appropriate grading practices and project design. The project applicant shall implement the recommendations contained in the approved report during project design and construction.

When Required: Prior to approval of construction-related permit

Initial Approval: Bureau of Building

Monitoring/Inspection: Bureau of Building

Standard Condition 36: Seismic Hazards Zone (Landslide/Liquefaction)

Requirement: The project applicant shall submit a site-specific geotechnical report, consistent with California Geological Survey Special Publication 117 (as amended), prepared by a registered geotechnical engineer for City review and approval containing at a minimum a description of the geological and geotechnical conditions at the site, an evaluation of site-specific seismic hazards based on geological and geotechnical conditions, and recommended measures to reduce potential impacts related to liquefaction and/or slope stability hazards. The project applicant shall implement the recommendations contained in the approved report during project design and construction.

When Required: Prior to approval of construction-related permit

Initial Approval: Bureau of Building

Monitoring/Inspection: Bureau of Building

Standard Condition 45: Erosion and Sedimentation Control Plan for Construction

a. Erosion and Sedimentation Control Plan Required

Requirement: The project applicant shall submit an Erosion and Sedimentation Control Plan to the City for review and approval. The Erosion and Sedimentation Control Plan shall include all necessary measures to be taken to prevent excessive stormwater runoff or carrying by stormwater runoff of solid materials on to lands of adjacent property owners, public streets, or to creeks as a result of conditions created by grading and/or construction operations. The Plan shall include, but not be limited to, such measures as short-term erosion control planting, waterproof slope covering, check dams, interceptor ditches, benches, storm drains, dissipation structures, diversion dikes, retarding berms and barriers, devices to trap, store and filter out sediment, and stormwater retention basins. Off-site work by the project applicant may be necessary. The project applicant shall obtain permission or easements necessary for off-site work. There shall be a clear notation that the plan is subject to changes as changing conditions occur. Calculations of anticipated stormwater runoff and sediment volumes shall be included, if required by the City. The Plan shall specify that, after construction is complete, the project applicant shall ensure that the storm

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

drain system shall be inspected and that the project applicant shall clear the system of any debris or sediment.

When Required: Prior to approval of construction-related permit

Initial Approval: Bureau of Building

Monitoring/Inspection: N/A

b. Erosion and Sedimentation Control During Construction

Requirement: The project applicant shall implement the approved Erosion and Sedimentation Control Plan. No grading shall occur during the wet weather season (October 15 through April 15) unless specifically authorized in writing by the Bureau of Building.

When Required: During construction

Initial Approval: N/A

Monitoring/Inspection: Bureau of Building

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

VII. GREENHOUSE GAS EMISSIONS/GLOBAL CLIMATE CHANGE -- Would the project:

1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, specifically:

Project Impacts^{35,36}

a. For a project involving a stationary source, produce total emissions of more than 10,000 metric tons of CO₂e annually?³⁷

X

b. For a project involving a land use development, produce total emissions of more than 1,100 metric tons of CO₂e annually **AND** more than 4.6 metric tons of CO₂e per service population annually?³⁸

X

Plan Impacts

a. Produce emissions of more than 6.6 metric tons of CO₂e per service population annually?

X

2. Fundamentally conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing greenhouse gas emissions?

X

³⁵ Greenhouse gas impacts are, by their nature, cumulative impacts because one project by itself cannot cause global climate change. These thresholds pertain to a project's contribution to cumulative impacts but are labeled "Project Impacts" to be consistent with the terminology used by BAAQMD to distinguish these impacts pertaining to a project from impacts pertaining to a plan ("Plan Impacts").

³⁶ The project's expected greenhouse gas emissions during construction should be annualized over a period of 40 years and then added to the expected emissions during operation for comparison to the threshold. A 40-year period is used because 40 years is considered the average life expectancy of a building before it is remodeled with considerations for increased energy efficiency. The thresholds are based on the BAAQMD thresholds. The BAAQMD thresholds were originally developed for project operation impacts only. Therefore, combining both the construction emissions and operation emissions for comparison to the threshold represents a conservative analysis of potential greenhouse gas impacts.

³⁷ Stationary sources are projects that require a BAAQMD permit to operate.

³⁸ Land use developments are projects that do not require a BAAQMD permit to operate. The service population includes both the residents and the employees of the project. The project's impact would be considered significant if the emissions exceed BOTH the 1,100 metric tons threshold and the 4.6 metric tons threshold. Accordingly, the impact would be considered less than significant if the project's emissions are below EITHER of these thresholds. The BAAQMD CEQA Guidelines state that the project would have a less-than-significant impact if CO₂e emissions do not exceed the 1,100 metric tons threshold OR the 4.6 metric tons per service population threshold. Because this checklist is structured to indicate when a project would have a significant impact, the thresholds are presented here such that the project would have a significant impact if it exceeds the 1,100 metric tons threshold AND the 4.6 metric tons per service population threshold.

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

Explanation:

Background

Greenhouse gases (GHGs) are atmospheric gases that capture and retain a portion of the heat radiated from the earth after it has been heated by the sun. The primary GHGs are carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O), ozone, and water vapor. While GHGs are natural components of the atmosphere, CO₂, CH₄, and N₂O, are also emitted from human activities and their accumulation in the atmosphere over the past 200 years has substantially increased their concentrations. This accumulation of GHGs has been implicated as the driving force behind global climate change.

Human emissions of CO₂ are largely by-products of fossil fuel combustion, whereas CH₄ results from off-gassing associated with organic decay processes in agriculture, landfills, etc. Other GHGs, including hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, are generated by certain industrial processes. The global warming potential of GHGs are typically reported in comparison to that of CO₂, the most common and influential GHG, in units of “carbon dioxide-equivalents” (CO₂e).³⁹

There is international scientific consensus that human-caused increases in GHGs have and will continue to contribute to global warming. Potential global warming impacts in California may include, but are not limited to, loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years. Secondary effects are likely to include a global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity.

The Bay Area Air Quality Management District (BAAQMD) is the primary agency responsible for air quality regulation in the nine-county San Francisco Bay Area Air Basin. As part of that role, the BAAQMD has prepared *CEQA Air Quality Guidelines* that provide CEQA thresholds of significance for operational GHG emissions from land use projects (i.e., 1,100 metric tons of CO₂e per year, which is also considered the definition of a cumulatively considerable contribution to the global GHG burden and, therefore, of a significant cumulative impact), but has not defined thresholds for project construction GHG emissions. The *CEQA Air Quality Guidelines* methodology and thresholds of significance have been used in this Initial Study’s analysis of potential GHG impacts associated with the Project.

The City of Oakland Energy and Climate Action Plan (ECAP) was adopted on December 4, 2012 as an environmental policy to address the issues of climate change and energy consumption. The purpose of the ECAP is to identify and prioritize actions the city can take to reduce energy consumption and greenhouse gas (GHG) emissions associated with Oakland. This plan recommends GHG reduction actions, and establishes a framework for coordinating implementation, as well as monitoring and reporting on progress. The goal of the ECAP was to reduce 2005 GHG emissions by 36% in 15 years.

³⁹ Because of the differential heat absorption potential of various GHGs, GHG emissions are frequently measured in “carbon dioxide-equivalents,” which present a weighted average based on each gas’s heat absorption (or “global warming”) potential.

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

Analysis

- 1) The construction of a single family house on an existing lot in a developed neighborhood in an urbanized city would have no measurable effects with respect to greenhouse gas (GHG) generation. Therefore it would not exceed the applicable thresholds mandating preparation of a GHG Reduction Plan. (*Less than Significant Impact*)

- 2) Assembly Bill 32 (AB 32; Núñez, Chapter 488, Statutes of 2006), the California Global Warming Solutions Act, requires the CARB to lower State GHG emissions to 1990 levels by 2020—a 25 percent reduction statewide with mandatory caps for significant GHG emission sources. AB 32 directed CARB to develop discrete early actions to reduce GHG while preparing the Climate Change Scoping Plan in order to identify how best to reach the 2020 goal.

Statewide strategies to reduce GHG emissions to attain the 2020 goal include the Low Carbon Fuel Standard (LCFS), the California Appliance Energy Efficiency regulations, the California Renewable Energy Portfolio standard, changes in the motor vehicle corporate average fuel economy (CAFE) standards, and other early action measures that would ensure the state is on target to achieve the GHG emissions reduction goals of AB 32.

In an effort to make further progress in attaining the longer-range GHG emissions reductions required by AB 32, Governor Brown identified in his January 2015 inaugural address an additional goal (i.e., reducing GHG emissions to 40% below 1990 levels by 2030) to be attained by implementing several key climate change strategy “pillars:” (1) reducing present petroleum use in cars and trucks by up to 50 percent; (2) increasing from one-third to 50 percent the share of California’s electricity derived from renewable sources; (3) doubling the energy efficiency savings achieved at existing buildings and making heating fuels cleaner; (4) reducing the release of methane, black carbon, and other short-lived GHGs; (5) managing farm and rangelands, forests and wetlands to more efficiently store carbon; and (6) periodically updating the State's climate adaptation strategy.

In January 2010, the State Building Standards Commission adopted updates to the California Green Building Standards Code (CALGreen), which went into effect in January 2011. CALGreen contains requirements for construction site selection, storm water control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, and site irrigation conservation. CALGreen provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. CALGreen also requires building commissioning, which is a process for verifying that all building systems, like heating and cooling equipment and lighting systems, are functioning at their maximum efficiency. CALGreen provides the minimum standard that buildings need to meet in order to be certified for occupancy, but does not prevent a local jurisdiction from adopting a more stringent requirements. CALGreen is intended to (1) reduce GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; and (3) reduce energy and water consumption. By

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------------	--	--	------------------------------------	--------------

being built in accord with CALGreen, the Project would not conflict with AB 32 and the strategies being implemented to achieve its goals.

In summary, the Project would not conflict with applicable plans, policies, and regulations adopted for the purpose of reducing GHG emissions and, thus, would have *no impact*.

Sources:

City of Oakland. *Energy and Climate Action Plan*, December 12, 2012.
 BAAQMD. 2010b. *Source Inventory of Bay Area Greenhouse Gas Emissions*.
http://www.baaqmd.gov/~/_media/Files/Planning%20and%20Research/Emission%20Inventory/regionalinventory2007_2_10.ashx

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

VIII. HAZARDS AND HAZARDOUS MATERIALS --

Would the project:

- | | | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1. 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"/> | X | <input type="checkbox"/> |
| 2. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X | <input type="checkbox"/> |
| 3. Create a significant hazard to the public through the storage or use of acutely hazardous materials near sensitive receptors? ⁴⁰ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X | <input type="checkbox"/> |
| 4. 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"/> | <input type="checkbox"/> | X |
| 5. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 (i.e., the "Cortese List") and, as a result, would create a significant hazard to the public or the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |
| 6. Result in less than two emergency access routes for streets exceeding 600 feet in length unless otherwise determined to be acceptable by the Fire Chief, or his/her designee, in specific instances due to climatic, geographic, topographic, or other conditions? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |
| 7. Be 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, and would result in a significant safety hazard for | | | | | |

⁴⁰ Per the BAAQMD CEQA Guidelines, evaluate whether the project would result in persons being within the Emergency Response Planning Guidelines (ERPG) exposure level 2 for acutely hazardous air emissions either by siting a new source or a new sensitive receptor. For this threshold, sensitive receptors include residential uses, schools, parks, daycare centers, nursing homes, and medical centers.

	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
8. Be located within the vicinity of a private airstrip, and would result in a significant safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
9. Fundamentally 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"/>	<input type="checkbox"/>	X
10. Expose people or structures to a significant 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"/>	X	<input type="checkbox"/>	<input type="checkbox"/>

Explanation:

1-3) Hazardous waste includes household and industrial products that cannot be safely disposed of in the trash or poured down sinks or storm drains. This includes used motor oil, batteries, solvents, poisons, chemicals, oil- and latex-based paints, and automotive fluids. Small quantities of these items would be used on the site during construction.

Construction of the proposed project would result in the transport of materials generally regarded as hazardous materials. It is anticipated that limited quantities of miscellaneous hazardous substances, such as gasoline, diesel fuel, hydraulic fluids, paint, and other similarly related materials would be brought to the project site, used, and stored during the construction period. The types and quantities of materials to be used could pose a significant risk to the public and/or the environment if not properly handled. During construction of the proposed project, fuels and lubricants have the potential to be released into the environment, causing environmental and/or human exposure to these hazards. However, the applicant and its contractors would handle, store, and dispose of all hazardous materials used onsite in accordance with all applicable local, State, and federal laws regulating the uses of hazardous materials. The City's Standard Condition 39 would further reduce this impact. Therefore, this would be a *less-than-significant* impact.

State agencies regulating hazardous materials are the California Environmental Protection Agency (Cal/EPA) and the Office of Emergency Services (OES). The California Highway Patrol (CHP) and California Department of Transportation (Caltrans) enforce regulations for hazardous materials transport. Within Cal/EPA, the Department of Toxic Substances Control (DTSC) has primary regulatory authority to enforce hazardous materials regulations. State hazardous waste regulations are contained primarily in Title 22 of the California Code of Regulations (CCR). The California Occupational Health and

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

Safety Administration (Cal OSHA) has developed rules and regulations regarding worker safety around hazardous and toxic substances.

Because the applicant and its contractors would implement and comply with all relevant local, State, and Federal regulations related to the handling, transport, and storage of hazardous materials, impacts related to creation of significant hazards to the public through routine transport, use, and disposal of hazardous materials would not occur. Additionally, because the applicant would be required to adhere to the City's Standard Condition 39 during project construction, impacts from potential spills of hazardous materials would be minimized. Therefore, this impact would be *less than significant*.

- 4) The nearest schools to the project site are Thornhill Elementary School (5880 Thornhill Drive) Montclair Elementary school (7157 Mountain Boulevard), and Montera Middle School (5555 Ascot Drive), each of which is nearly a mile from the project site. Therefore, *no impacts* would occur related to emissions or handling of hazardous materials within 0.5 mile of an existing or proposed school. (*No Impact*)
- 5) The project site does not include any sites on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. The project would have no impact. The Project area is not identified by CalEPA as a hazardous materials site (CalEPA 2016). Thus, the proposed project would not create a significant hazard to the public or to the environment as a result of existing hazardous material contamination. (*No Impact*)
- 6) The project would be accessed by Manzanita Drive, which meets the City's emergency access criteria. Additional access to the lower portion of the site is available from Skyline Boulevard. (*No Impact*)
- 7, 8) The nearest airport is Metropolitan Oakland International Airport, about 10 miles from the site. There are no private airstrips in the City of Oakland. The site is not within an Airport Land Use Plan. (*No Impact*)
- 9) No new facilities would be constructed such that the project would permanently impair implementation of or physically interfere with the City's adopted emergency response plan or emergency evacuation plan. As a result, *no impacts* are anticipated.
- 10) The Project site is within a Very High Fire Hazard Severity Zone wildland fire hazard area (http://frap.fire.ca.gov/webdata/maps/alameda/fhszl_map.1.pdf). The Cal Fire Hazard Severity zones have been determined based on a combination of fire behavior and the probability of flames and embers threatening buildings. Fire behavior is based on fuel type, slope, and severe fire weather (Cal Fire – FRAP, 2016). Wildland impacts of the project would be *potentially significant*, but would be reduced to a *less-than-significant level* by implementation of the City's Standard Condition of Approval 43, below.

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

Standard Conditions of Approval

Standard Condition 39: Hazardous Materials Related to Construction

Requirement: The project applicant shall ensure that Best Management Practices (BMPs) are implemented by the contractor during construction to minimize potential negative effects on groundwater, soils, and human health. These shall include, at a minimum, the following:

- a. Follow manufacture’s recommendations for use, storage, and disposal of chemical products used in construction;
- b. Avoid overtopping construction equipment fuel gas tanks;
- c. During routine maintenance of construction equipment, properly contain and remove grease and oils;
- d. Properly dispose of discarded containers of fuels and other chemicals;
- e. Implement lead-safe work practices and comply with all local, regional, state, and federal requirements concerning lead (for more information refer to the Alameda County Lead Poisoning Prevention Program); and
- f. If soil, groundwater, or other environmental medium with suspected contamination is encountered unexpectedly during construction activities (e.g., identified by odor or visual staining, or if any underground storage tanks, abandoned drums or other hazardous materials or wastes are encountered), the project applicant shall cease work in the vicinity of the suspect material, the area shall be secured as necessary, and the applicant shall take all appropriate measures to protect human health and the environment. Appropriate measures shall include notifying the City and applicable regulatory agency(ies) and implementation of the actions described in the City’s Standard Conditions of Approval, as necessary, to identify the nature and extent of contamination. Work shall not resume in the area(s) affected until the measures have been implemented under the oversight of the City or regulatory agency, as appropriate.

When Required: During construction

Initial Approval: N/A

Monitoring/Inspection: Bureau of Building

Standard Condition 43. Wildfire Prevention Assessment District – Vegetation Management

a) Vegetation Management Plan Required

Requirement: The project applicant shall submit a Vegetation Management Plan for City review and approval, and shall implement the approved Plan prior to, during, and after construction of the project. The Vegetation Management Plan may be combined with the Landscape Plan otherwise required by the Conditions of Approval. The Vegetation Management Plan shall include, at a minimum, the following measures:

- i. Removal of dead vegetation overhanging roof and chimney areas;
- ii. Removal of leaves and needles from roofs;
- iii. Planting and placement of fire-resistant plants around the house and phasing out flammable vegetation;

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

- iv. Trimming back vegetation around windows;
- v. Removal of flammable vegetation on hillside slopes greater than 20%;
- vi. Pruning the lower branches of tall trees;
- vii. Clearing out ground-level brush and debris; and
- viii. Stacking woodpiles away from structures.

When Required: Prior to approval of construction-related permit

Initial Approval: Oakland Fire Department

Monitoring/Inspection: Oakland Fire Department

b) Fire Safety During Construction

Requirement: The project applicant shall require the construction contractor to implement spark arrestors on all construction vehicles and equipment to minimize accidental ignition of dry construction debris and surrounding dry vegetation.

When Required: During construction

Initial Approval: N/A

Monitoring/Inspection: Bureau of Building

Sources:

CalEPA Cortese List, 2016: <http://www.calepa.ca.gov/SiteCleanup/CorteseList/default.htm>
 Cal Fire, Fire Hazard Severity Zones, Adopted 2007: <http://frap.fire.ca.gov/data/frapgisdata-subset>

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

IX. HYDROLOGY AND WATER QUALITY -- Would the project:

- | | | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1. Violate any water quality standards or waste discharge requirements? | <input type="checkbox"/> | <input type="checkbox"/> | X | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. 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 (e.g., 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"/> | X | <input type="checkbox"/> |
| 3. Result in substantial erosion or siltation on- or off-site that would affect the quality of receiving waters? | <input type="checkbox"/> | <input type="checkbox"/> | X | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Result in substantial flooding on- or off-site? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X | <input type="checkbox"/> |
| 5. Create or contribute substantial runoff which would exceed the capacity of existing or planned stormwater drainage systems? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X | <input type="checkbox"/> |
| 6. Create or contribute substantial runoff which would be an additional source of polluted runoff? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X | <input type="checkbox"/> |
| 7. Otherwise substantially degrade water quality? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X | <input type="checkbox"/> |
| 8. Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map that would impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |
| 9. Place within a 100-year flood hazard area structures which would impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |
| 10. Expose people or structures to a substantial risk of loss, injury or death involving flooding? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |
| 11. Expose people or structures to a substantial risk of loss, injury, or death as | | | | | |

	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
a result of inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
12. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course, or increasing the rate or amount of flow, of a creek, river or stream in a manner that would result in substantial erosion, siltation, or flooding, both on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
13. Fundamentally conflict with elements of the City of Oakland Creek Protection (OMC Chapter 13.16) ordinance intended to protect hydrologic resources? ⁴¹	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

Explanation:

- 1) Construction of the proposed project would result in a small potential for increased levels of water pollution to offsite or downstream areas as a result of construction activities. During construction activities, stormwater runoff could contaminate offsite water bodies through the accidental discharge of construction-related fuels, oils, hydraulic fluid, and other hazardous substances. Because the applicant would prepare and adhere to a Stormwater Pollution Prevention Plan (SWPPP) and associated Best Management Practices (BMP) during project construction, as required the City’s Standard Conditions of Approval 45, 47, 48, 49, and 51, below, potential for runoff generated at the project site to contaminate the offsite water bodies would be reduced to a *less-than-significant* level.
- 2) The project would result in a small increase in the impervious surface areas on the project site as a result of the new house and driveway. The addition of impervious surfaces could reduce infiltration of precipitation into the groundwater. Because the proposed project result in a relatively small surface area being converted to impervious surfaces, the site’s rocky substrate (which limits infiltration on the site), and because nearby open space land (including over 75% of the site) would continue to provide adequate infiltration capacity and groundwater recharge, no significant changes in groundwater infiltration or level is anticipated. This would be a *less-than-significant impact*.
- 3) Construction of the project would result in clearing and grading activities over a portion of the site, and the installation of new impervious surfaces. These activities could cause additional erosion, siltation, or both onsite and offsite. Because the applicant would prepare and adhere to a Stormwater Pollution Prevention Plan (SWPPP) and associated Best Management Practices (BMP) during project construction, as required the City’s

⁴¹ Although there are no specific, numeric/quantitative criteria to assess impacts, factors to be considered in determining significance include whether there is substantial degradation of water quality through (a) discharging a substantial amount of pollutants into a creek, (b) significantly modifying the natural flow of the water or capacity, (c) depositing substantial amounts of new material into a creek or causing substantial bank erosion or instability, or (d) substantially endangering public or private property or threatening public health or safety.

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

Standard Conditions of Approval 45, 47, 48, 49, and 51, below, potential for runoff generated at the project site to contaminate the offsite water bodies would be reduced to a *less-than-significant* level.

- 4) Construction of the proposed project would result in the generation of additional stormwater flows from new impervious surfaces during storm events. However, the increase in stormwater runoff would be very minor (due to the small increase in impervious surface over existing conditions), and most of the runoff would percolate into underlying soils and groundwater around the impervious surface or near the storm drain outfall. Therefore, the project would not result in on-site or off-site flooding and this would be a *less-than-significant impact*. Standard Condition of Approval 48, below, would further reduce runoff from the site.
- 5) As described in item 4) above, the project would not substantially increase the runoff from impervious surfaces onsite. Stormwater and water quality protection measures, as required the City's Standard Conditions of Approval 48 and 49, below, would further reduce runoff from the project. Therefore, this would be a *less-than-significant impact*.
- 6) See discussions under Items 1, 2, and 4, above. This would be a *less-than-significant impact* with the Standard Conditions of Approval.
- 7) New impervious surfaces that would be constructed as part of the project would collect small amounts of oils, sediments, brake dust, and other potential water pollutants. During storm events, these pollutants could be carried by runoff and potentially discharged into surrounding soil on the project site or downstream from the property. This would not substantially degrade water quality. (*Less than Significant Impact*)
- 8, 9,
- 10) The project site is on top of a ridge and not within any flood hazard zones. (*No Impact*)
- 11) The project area is not located in the vicinity of any lakes or other large water bodies that would be susceptible to seiche, in the event of seismic activity. Additionally, the project area is not located in the vicinity of any tidally-influenced waters, and is at an elevation over 1300 feet above sea level. Therefore, the project area would not be susceptible to tsunami hazards. The project structures are located atop a knoll and not in the vicinity of any steep slopes, minimizing the potential effects of any mudflows. No impact would occur. There are no slopes above the site, so it is not subject to mudflow hazards. (*No Impact*)
- 12) See discussions under Items 1, 2, and 4, above. The project would not substantially alter the drainage pattern of the site. Rooftop rainfall would be connected in the house's drainage system and discharged on the site via an energy dissipator. This would be a *less-than-significant impact* with the Standard Conditions of Approval.
- 13) The property is not near any streams. Therefore *no impact* would occur with respect to the City's Creek Protection Ordinance.

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

Standard Conditions of Approval

Standard Condition 45. Erosion and Sedimentation Control Plan for Construction

a. Erosion and Sedimentation Control Plan Required

Requirement: The project applicant shall submit an Erosion and Sedimentation Control Plan to the City for review and approval. The Erosion and Sedimentation Control Plan shall include all necessary measures to be taken to prevent excessive stormwater runoff or carrying by stormwater runoff of solid materials on to lands of adjacent property owners, public streets, or to creeks as a result of conditions created by grading and/or construction operations. The Plan shall include, but not be limited to, such measures as short-term erosion control planting, waterproof slope covering, check dams, interceptor ditches, benches, storm drains, dissipation structures, diversion dikes, retarding berms and barriers, devices to trap, store and filter out sediment, and stormwater retention basins. Off-site work by the project applicant may be necessary. The project applicant shall obtain permission or easements necessary for off-site work. There shall be a clear notation that the plan is subject to changes as changing conditions occur. Calculations of anticipated stormwater runoff and sediment volumes shall be included, if required by the City. The Plan shall specify that, after construction is complete, the project applicant shall ensure that the storm drain system shall be inspected and that the project applicant shall clear the system of any debris or sediment.

When Required: Prior to approval of construction-related permit

Initial Approval: Bureau of Building

Monitoring/Inspection: N/A

b. Erosion and Sedimentation Control During Construction

Requirement: The project applicant shall implement the approved Erosion and Sedimentation Control Plan. No grading shall occur during the wet weather season (October 15 through April 15) unless specifically authorized in writing by the Bureau of Building.

When Required: During construction

Initial Approval: N/A

Monitoring/Inspection: Bureau of Building

Standard Condition 47. Drainage Plan for Post-Construction Stormwater Runoff on Hillside Properties

Requirement: The project applicant shall submit and implement a Drainage Plan to be reviewed and approved by the City. The Drainage Plan shall include measures to reduce the volume and velocity of post-construction stormwater runoff to the maximum extent practicable. Stormwater runoff shall not be augmented to adjacent properties, creeks, or storm drains. The Drainage Plan shall be included with the project drawings submitted to the City for site improvements.

When Required: Prior to approval of construction-related permit

Initial Approval: Bureau of Building

Monitoring/Inspection: Bureau of Building

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

Standard Condition 48. Site Design Measures to Reduce Stormwater Runoff

Requirement: Pursuant to Provision C.3 of the Municipal Regional Stormwater Permit issued under the National Pollutant Discharge Elimination System (NPDES), the project applicant is encouraged to incorporate appropriate site design measures into the project to reduce the amount of stormwater runoff. These measures may include, but are not limited to, the following:

- a. Minimize impervious surfaces, especially directly connected impervious surfaces and surface parking areas;
- b. Utilize permeable paving in place of impervious paving where appropriate;
- c. Cluster structures;
- d. Direct roof runoff to vegetated areas;
- e. Preserve quality open space; and
- f. Establish vegetated buffer areas.

When Required: Ongoing

Initial Approval: N/A

Monitoring/Inspection: N/A

Standard Condition 49. Source Control Measures to Limit Stormwater Pollution

Requirement: Pursuant to Provision C.3 of the Municipal Regional Stormwater Permit issued under the National Pollutant Discharge Elimination System (NPDES), the project applicant is encouraged to incorporate appropriate source control measures to limit pollution in stormwater runoff. These measures may include, but are not limited to, the following:

- a. Stencil storm drain inlets “No Dumping – Drains to Bay;”
- b. Minimize the use of pesticides and fertilizers;
- c. Cover outdoor material storage areas, loading docks, repair/maintenance bays and fueling areas;
- d. Cover trash, food waste, and compactor enclosures; and
- e. Plumb the following discharges to the sanitary sewer system, subject to City approval:
 - a. Discharges from indoor floor mats, equipment, hood filter, wash racks, and, covered outdoor wash racks for restaurants;
 - b. Dumpster drips from covered trash, food waste, and compactor enclosures;
 - c. Discharges from outdoor covered wash areas for vehicles, equipment, and accessories;
 - d. Swimming pool water, if discharge to on-site vegetated areas is not feasible; and
 - e. Fire sprinkler test water, if discharge to on-site vegetated areas is not feasible.

When Required: Ongoing

Initial Approval: N/A

Monitoring/Inspection: N/A

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------------	--	--	------------------------------------	--------------

Standard Condition 51. NPDES C.3 Stormwater Requirements for Small Projects

Requirement: Pursuant to Provision C.3 of the Municipal Regional Stormwater Permit issued under the National Pollutant Discharge Elimination System (NPDES), the project applicant shall incorporate one or more of the following site design measures into the project:

- a. Direct roof runoff into cisterns or rain barrels for reuse;
- b. Direct roof runoff onto vegetated areas;
- c. Direct runoff from sidewalks, walkways, and/or patios onto vegetated areas;
- d. Direct runoff from driveways and/or uncovered parking lots onto vegetated areas;
- e. Construct sidewalks, walkways, and/or patios with permeable surfaces; or
- f. Construct bike lanes, driveways, and/or uncovered parking lots with permeable surfaces.

The project drawings submitted for construction-related permits shall include the proposed site design measure(s) and the approved measure(s) shall be installed during construction. The design and installation of the measure(s) shall comply with all applicable City requirements.

When Required: Prior to approval of construction-related permit

Initial Approval: Bureau of Planning; Bureau of Building

Monitoring/Inspection: Bureau of Building

Sources:

- Project Plans
- Site Reconnaissance

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

X. LAND USE AND PLANNING -- Would the project:

1. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
2. Result in a fundamental conflict between adjacent or nearby land uses?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
3. Fundamentally conflict with any applicable land use plan, policy, or regulation 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 and actually result in a physical change in the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
4. Fundamentally conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

Explanation:

- 1) The project would be the construction of a single-family house on an existing infill lot between two existing single-family houses. Therefore it would not have the potential to disrupt or divide the physical arrangement of an existing community through access or installation of physical barriers. Therefore, *no impact* would occur.
- 2) The project would be the same land uses as on the adjacent properties. It is a single-family residence in a neighborhood of single-family residences. The house size is similar to others in the neighborhood. Although the project would affect side views from adjacent houses, it would not fundamentally conflict with adjacent or nearby land uses. (*No Impact*)
- 3) The project proposes a Conditional Use Permit and Variance to allow the house's height limit exceedences. In addition, project grading would require approval of an Incidental Take Permit for root and branch trimming of one of the two pallid manzanita plants on the site. If those approvals are granted, as is permitted under City and State codes, the proposed house would not conflict with any applicable environmentally protective land use plan, policy, or regulation. Therefore the impact would be *less than significant*.
- 4) The project site is not subject to a habitat conservation plan or natural community conservation plan. Therefore the project would have *no impact* with respect to any such plans.

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------------	--	--	------------------------------------	--------------

Sources:

City of Oakland Zoning Ordinance and General Plan
 Land Use Element
 Project Plans
 Site Reconnaissance

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------------	--	--	------------------------------------	--------------

XI. MINERAL RESOURCES -- Would the project:

1. 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?

X

2. 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?

X

Explanation:

1, 2) According to the City’s Open Space, Recreation, and Conservation Element of the General Plan, the project is located in a developed urban area that has no known existing mineral resources. The project site is a small (approximately 8,000 sq. ft.) lot sandwiched between two developed lots in a residential neighborhood. Therefore, the project would not 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; and would not 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. The project would have *no impact* on mineral resources.

Sources:

City of Oakland, Open Space, Conservation and Recreation Element. June 1996
Site Reconnaissance

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

XII. NOISE -- Would the project:

1. Generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code section 17.120.050) regarding construction noise, except if an acoustical analysis is performed that identifies recommend measures to reduce potential impacts?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
2. Generate noise in violation of the City of Oakland nuisance standards (Oakland Municipal Code section 8.18.020) regarding persistent construction-related noise?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
3. Generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code section 17.120.050) regarding operational noise?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
4. Generate noise resulting in a 5 dBA permanent increase in ambient noise levels in the project vicinity above levels existing without the project; or, if under a cumulative scenario where the cumulative increase results in a 5 dBA permanent increase in ambient noise levels in the project vicinity without the project (i.e., the cumulative condition including the project compared to the existing conditions) and a 3 dBA permanent increase is attributable to the project (i.e., the cumulative condition including the project compared to the cumulative baseline condition without the project)? ⁴²	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
5. Expose persons to interior L _{dn} or CNEL greater than 45 dBA for multi-family dwellings, hotels, motels, dormitories and long-term care facilities (and may be extended by local legislative action to include single-family dwellings) per California Noise Insulation Standards (CCR Part 2, Title 24)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
6. Expose the project to community noise in conflict with the land use compatibility					

⁴² Outside of a laboratory, a 3 dBA change is considered a just-perceivable difference. Therefore, 3 dBA is used to determine if the project-related noise increases are cumulative considerable.

	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
guidelines of the Oakland General Plan after incorporation of all applicable Standard Conditions of Approval?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
7. Expose persons to or generate noise levels in excess of applicable standards established by a regulatory agency (e.g., occupational noise standards of the Occupational Safety and Health Administration [OSHA])?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
8. During either project construction or project operation expose persons to or generate groundborne vibration that exceeds the criteria established by the Federal Transit Administration (FTA)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
9. Be located within an airport land use plan and would expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
10. Be located within the vicinity of a private airstrip, and would expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

Explanation:

- 1, 2) The project would generate standard construction noises during its 10-12-month construction period. These noises would result from construction equipment, including excavating equipment, nail guns, saws, air compressors, haul trucks, cement trucks, and other equipment. Construction noise may disturb and annoy residents of neighboring properties, particularly given the close proximity of the proposed house to adjacent residences. This *potentially significant impact* from construction noise would be reduced to a *less-than-significant* level by implementation of Standard Conditions of Approval 58-60, below.
- 3, 4) After construction is completed, the only noise from the property would be that associated with activities of residents of the property. As this is a single house in a developed residential neighborhood, and no unusual uses are proposed for the house, this impact would be *less than significant*. There would be no measurable noise increase in the neighborhood from this house. Compliance with Standard Condition of Approval 64 would further limit this impact.
- 5) The project site is in a residential neighborhood and there are no multi-family dwellings, hotels, motels, dormitories, or long-term care facilities in the project vicinity. Therefore the project would have *no impact* on these sensitive receptors.

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

- 6) The project would be located in a quiet single-family neighborhood, with large parks to the east. Residents would not be subject to any high noise levels that would exceed noise/land-use compatibility standards for the proposed residential use. *(No Impact)*
- 7) Construction activities may generate high short-term noise levels. Workers would be expected to wear protective noise gear as appropriate to their profession, Therefore the project would result in *no impact* with respect to OSHA occupational noise standards.
- 8) The project would involve removal of about 500 cubic yards of material. This would be conducted using standard construction equipment; no blasting or other high-noise-generating activities would be required to prepare the site. Similarly, the project would not require pile driving (any piers would be drilled and filled at the site). Therefore groundborne vibration impacts would be minimal, and *less than significant*.
- 9) The project site would not be located within an airport land use plan. It should be noted that recent Federal Aviation Administration (FAA) shifts in air traffic arrival routes have resulted in numerous complaints to the FAA from residents of the Oakland Hills (see, for example: http://www.eastbaytimes.com/my-town/ci_29439152/residents-raising-concerns-over-flights-noise-over-oakland). As this is an existing condition, and the project house would be built to modern insulation standards (including double-pane windows), this impact is considered *less than significant*.
- 10) The proposed project would not be located within the vicinity of a private airstrip (there are no such airstrips in Oakland), and therefore would not expose people residing or working in the project area to excessive noise levels. *(No Impact)*

Standard Conditions of Approval

Standard Condition 58. Construction Days/Hours

Requirement: The project applicant shall comply with the following restrictions concerning construction days and hours:

- a. Construction activities are limited to between 7:00 a.m. and 7:00 p.m. Monday through Friday, except that pier drilling and/or other extreme noise generating activities greater than 90 dBA shall be limited to between 8:00 a.m. and 4:00 p.m.
- b. Construction activities are limited to between 9:00 a.m. and 5:00 p.m. on Saturday. In residential zones and within 300 feet of a residential zone, construction activities are allowed from 9:00 a.m. to 5:00 p.m. only within the interior of the building with the doors and windows closed. No pier drilling or other extreme noise generating activities greater than 90 dBA are allowed on Saturday.
- c. No construction is allowed on Sunday or federal holidays.

Construction activities include, but are not limited to, truck idling, moving equipment (including trucks, elevators, etc.) or materials, deliveries, and construction meetings held on-site in a non-enclosed area.

Any construction activity proposed outside of the above days and hours for special activities (such as concrete pouring which may require more continuous amounts of time) shall be evaluated on a case-by-case basis by the City, with criteria including the urgency/emergency nature of the work, the proximity of residential or other sensitive uses,

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

and a consideration of nearby residents’/occupants’ preferences. The project applicant shall notify property owners and occupants located within 300 feet at least 14 calendar days prior to construction activity proposed outside of the above days/hours. When submitting a request to the City to allow construction activity outside of the above days/hours, the project applicant shall submit information concerning the type and duration of proposed construction activity and the draft public notice for City review and approval prior to distribution of the public notice.

When Required: During construction

Initial Approval: N/A

Monitoring/Inspection: Bureau of Building

Standard Condition 59. Construction Noise

Requirement: The project applicant shall implement noise reduction measures to reduce noise impacts due to construction. Noise reduction measures include, but are not limited to, the following:

- a. Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds) wherever feasible.
- b. Except as provided herein, impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used, if such jackets are commercially available, and this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures.
- c. Applicant shall use temporary power poles instead of generators where feasible.
- d. Stationary noise sources shall be located as far from adjacent properties as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or use other measures as determined by the City to provide equivalent noise reduction.
- e. The noisiest phases of construction shall be limited to less than 10 days at a time. Exceptions may be allowed if the City determines an extension is necessary and all available noise reduction controls are implemented.

When Required: During construction

Initial Approval: N/A

Monitoring/Inspection: Bureau of Building

Standard Condition 60. Extreme Construction Noise

a. Construction Noise Management Plan Required

Requirement: Prior to any extreme noise generating construction activities (e.g., pier drilling, pile driving and other activities generating greater than 90dBA), the project

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

applicant shall submit a Construction Noise Management Plan prepared by a qualified acoustical consultant for City review and approval that contains a set of site-specific noise attenuation measures to further reduce construction impacts associated with extreme noise generating activities. The project applicant shall implement the approved Plan during construction. Potential attenuation measures include, but are not limited to, the following:

- i. Erect temporary plywood noise barriers around the construction site, particularly along on sites adjacent to residential buildings;
- ii. Implement “quiet” pile driving technology (such as pre-drilling of piles, the use of more than one pile driver to shorten the total pile driving duration), where feasible, in consideration of geotechnical and structural requirements and conditions;
- iii. Utilize noise control blankets on the building structure as the building is erected to reduce noise emission from the site;
- iv. Evaluate the feasibility of noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings by the use of sound blankets for example and implement such measure if such measures are feasible and would noticeably reduce noise impacts; and
- v. Monitor the effectiveness of noise attenuation measures by taking noise measurements.

When Required: Prior to approval of construction-related permit

Initial Approval: Bureau of Building

Monitoring/Inspection: Bureau of Building

b. Public Notification Required

Requirement: The project applicant shall notify property owners and occupants located within 300 feet of the construction activities at least 14 calendar days prior to commencing extreme noise generating activities. Prior to providing the notice, the project applicant shall submit to the City for review and approval the proposed type and duration of extreme noise generating activities and the proposed public notice. The public notice shall provide the estimated start and end dates of the extreme noise generating activities and describe noise attenuation measures to be implemented.

When Required: During construction

Initial Approval: Bureau of Building

Monitoring/Inspection: Bureau of Building

Standard Condition 64. Operational Noise

Requirement: Noise levels from the project site after completion of the project (i.e., during project operation) shall comply with the performance standards of chapter 17.120 of the Oakland Planning Code and chapter 8.18 of the Oakland Municipal Code. If noise levels exceed these standards, the activity causing the noise shall be abated until appropriate noise reduction measures have been installed and compliance verified by the City.

When Required: Ongoing

Initial Approval: N/A

Monitoring/Inspection: Bureau of Building

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------------	--	--	------------------------------------	--------------

Sources:

Site Reconnaissance

Chapter 17.120 of the Oakland Planning Code and Chapter 8.18, Oakland Municipal Code

http://www.eastbaytimes.com/my-town/ci_29439152/residents-raising-concerns-over-flights-noise-over-oakland

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

XIII. POPULATION AND HOUSING -- Would the project:

1. Induce substantial population growth in a manner not contemplated in the General Plan either directly (for example by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure), such that additional infrastructure is required but the impacts of such were not previously considered or analyzed?

X

2. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere in excess of that contained in the City's Housing Element?

X

3. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere in excess of that contained in the City's Housing Element?

X

Explanation:

- 1) The project involves construction of one house on an existing single-family residential designated lot. Therefore it had no potential to induce substantial population growth. *(No Impact)*
- 2, 3) The existing lot is undeveloped, therefore no displacement of housing or people would occur. *(No Impact)*

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

XIV. PUBLIC SERVICES -- Would the project:

1. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 following public services:

- | | | | | | |
|----------------------------|--------------------------|--------------------------|--------------------------|---|--------------------------|
| • Fire protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X | <input type="checkbox"/> |
| • Police protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X | <input type="checkbox"/> |
| • Schools? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X | <input type="checkbox"/> |
| • Other public facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X | <input type="checkbox"/> |

Explanation:

- 1) The project would be served by the City of Oakland’s Police and Fire Departments, and the Oakland Unified School District. Construction of a single house in this developed residential area would have minimal impact on any of these services. (*Less-than-Significant Impact*)

XV. RECREATION -- Would the project:

1. 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"/>	<input type="checkbox"/>	X
--------------------------	--------------------------	--------------------------	--------------------------	---

2. 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"/>	<input type="checkbox"/>	X
--------------------------	--------------------------	--------------------------	--------------------------	---

Explanation:

- 1) The addition of one approximately 3000-square-foot house to the existing developed residential neighborhood would not add substantially to use of, or demand for new, recreational facilities. (*No Impact*)

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

XVI. TRANSPORTATION/TRAFFIC -- Would the project:

A. Project Impacts

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, specifically:

Traffic Load and Capacity Thresholds

1. At a study, signalized intersection which is located **outside the Downtown**⁴³ area, would the project cause the level of service (LOS) to degrade to worse than LOS D (i.e., LOS E)?

X

2. At a study, signalized intersection which is located **within the Downtown** area, would the project cause the LOS to degrade to worse than LOS E (i.e., LOS F)?

X

3. At a study, signalized intersection **outside the Downtown** area where the level of service is LOS E, would the project cause the total intersection average vehicle delay to increase by four (4) or more seconds or degrade to worse than LOS E (i.e., LOS F)?

X

4. At a study, signalized intersection for all areas where the level of service is LOS E, would the project cause an increase in the average delay for any of the critical movements of six (6) seconds or more or degrade to worse than LOS E (i.e., LOS F)?

X

5. At a study, signalized intersection for

⁴³ The Downtown area is defined in the Land Use and Transportation Element of the General Plan (page 67) as the area generally bounded by the West Grand Avenue to the north, Lake Merritt and Channel Park to the east, the Oakland Estuary to the south, and I-980/Brush Street to the west.

	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
all areas where the level of service is LOS F, would the project cause (a) the overall volume-to-capacity (“V/C”) ratio to increase 0.01 or more or (b) the critical movement V/C ratio to increase 0.02 or more?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
6. At a study, unsignalized intersection would the project add ten (10) or more vehicles and after project completion satisfy the Caltrans peak hour volume traffic signal warrant?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
7. For a roadway segment of the Congestion Management Program (CMP) Network, would the project cause (a) the LOS to degrade from LOS E or better to LOS F or (b) the V/C ratio to increase 0.03 or more for a roadway segment that would operate at LOS F without the project? ⁴⁴	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
8. Cause congestion of regional significance on a roadway segment on the Metropolitan Transportation System (MTS) evaluated per the requirements of the Land Use Analysis Program of the CMP? ⁴⁵	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
9. Result in substantially increased travel times for AC Transit buses? ⁴⁶	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

⁴⁴ This threshold only applies to land use development projects that generate a vehicle trip on a roadway segment of the CMP Network located in the project study area and to transportation projects that would reduce the vehicle capacity of a roadway segment of the CMP Network.

⁴⁵ This threshold only applies to a land use development project that involves either (a) a general plan amendment that would generate 100 or more p.m. peak hour trips above the current general plan land use designation or (b) an EIR and the project would generate 100 or more p.m. peak hour trips above the existing condition. Factors to consider in evaluating the potential impact include, but are not limited to, the relationship between the project and planned improvements in the Countywide Transportation Plan, the project’s consistency with City policies concerning infill and transit-oriented development, the proximity of the project to other jurisdictions, and the magnitude of the project’s contribution based on V/C ratios.

⁴⁶ Factors to consider in evaluating the potential impact include, but are not limited to, the proximity of the project site to the transit corridor(s), the function of the roadway segment(s), and the characteristics of the potentially affected bus route(s). The evaluation may require a qualitative and/or quantitative analysis depending upon these relevant factors.

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

Traffic Safety Thresholds

10. Directly or indirectly cause or expose roadway users (e.g., motorists, pedestrians, bus riders, bicyclists) to a permanent and substantial transportation hazard due to a new or existing physical design feature or incompatible uses? ⁴⁷	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
11. Directly or indirectly result in a permanent substantial decrease in pedestrian safety? ⁴⁸	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
12. Directly or indirectly result in a permanent substantial decrease in bicyclist safety? ⁴⁹	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
13. Directly or indirectly result in a permanent substantial decrease in bus rider safety? ⁵⁰	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

⁴⁷ Factors to consider in evaluating the potential impact to roadway users due to physical design features and incompatible uses include, but are not limited to, collision history and the adequacy of existing traffic controls.

⁴⁸ Consider whether factors related to pedestrian safety such as, but not limited to, the following are substantial in nature:

- Degradation of existing pedestrian facilities, including the following:
 - o Removal of existing pedestrian refuge islands and/or bulbouts
 - o Increase of street crossing distance
 - o Permanent removal or significant narrowing of an existing sidewalk, path, marked crossing, or pedestrian access way
 - o Increase in pedestrian or vehicle volume at unsignalized or uncontrolled intersections
 - o Sidewalk overcrowding
- Addition of new vehicle travel lanes and/or turn lanes
- Permanent removal of existing sidewalk-street buffering elements (e.g., on-street parking lane, planting strip, street trees)
- Addition of vehicle driveway entrance(s) that degrade pedestrian safety, with considerations given to the following:
 - o Number of proposed vehicle driveway entrances
 - o Location of proposed vehicle driveway entrance(s)
 - o Visibility between pedestrians on the sidewalk and motorists using the proposed vehicle driveway entrance(s).

⁴⁹ Consider whether factors related to bicyclist safety such as, but not limited to, the following are substantial in nature:

- Removal or degradation of existing bikeways
- Addition of new vehicle travel lanes and/or turn lanes
- Addition of vehicle driveway entrances(s) that degrade(s) bicycle safety, with consideration given to the following:
 - o Number of proposed vehicle driveway entrances
 - o Location of proposed vehicle driveway entrance(s)
 - o Visibility between bicyclists on travelway and motorists using the proposed vehicle driveway entrance(s)

⁵⁰ Consider whether factors related to bus rider safety such as, but not limited to, the following are substantial in nature:

- Removal or degradation of existing bus facilities
- Siting of bus stops in locations without marked crossings, with insufficient sidewalks, or in isolated or unlit areas
- Addition of new bus riders that creates overcrowding at a bus stop

	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
14. Generate substantial multi-modal traffic traveling across at-grade railroad crossings that cause or expose roadway users (e.g., motorists, pedestrians, bus riders, bicyclists) to a permanent and substantial transportation hazard? ⁵¹	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

Other Thresholds

15. Fundamentally conflict with adopted City policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities adopted for the purpose of avoiding or mitigating an environmental effect and actually result in a physical change in the environment? ⁵²	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
--	--------------------------	--------------------------	--------------------------	---	--------------------------

16. Result in a substantial, though temporary, adverse affect on the circulation system during construction of the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
---	--------------------------	--------------------------	--------------------------	---	--------------------------

17. 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"/>	<input type="checkbox"/>	X
--	--------------------------	--------------------------	--------------------------	--------------------------	---

B. Cumulative Impacts

18. A project’s contribution to cumulative impacts is considered “considerable” (i.e., significant) when the project exceeds at

⁵¹ If the project will generate substantial multi-modal traffic across an at-grade railroad crossing, a Diagnostic Review will be required in consultation with the California Public Utilities Commission. The Review should include roadway and rail descriptions, collision history, traffic volumes for all modes, train volumes, vehicular speeds, train speeds, and existing rail and traffic controls.

⁵² Factors to consider in evaluating the potential conflict include, but are not limited to, the following:

- Does the project prevent or otherwise substantially adversely affect the future installation of a planned transportation improvement identified in an adopted City policy, plan, or program?
- Does the project fundamentally conflict with the applicable goals, policies, and/or actions identified in an adopted City policy, plan, or program?

Adopted City policies, plans, and programs to consider include, but are not limited to, the following:

- Land Use and Transportation Element (LUTE) of the General Plan (March 1998)
- Pedestrian Master Plan (November 2002)
- Bicycle Master Plan (December 2007)
- Public Transit and Alternative Modes Policy (formerly known as the “Transit-First Policy;” City Council Resolution 73036 C.M.S.)
- Sustainable Development Initiative (City Council Resolution 74678 C.M.S.)
- U.N. Environmental Accords (City Council Resolution 79808 C.M.S.)
- Capital Improvement Program

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

least one of the thresholds listed above in a future year scenario.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	---	--------------------------

C. Planning Related Non-CEQA Issues

The following transportation-related topics are not considerations under CEQA but should be evaluated in order to inform decision-makers and the public about these issues.

- Parking
- Transit Ridership
- Queuing
- Traffic Control Devices
- Collision History

Explanation:

1-16, 18) The addition of one, approximately 3100-square-foot, single-family house to an existing residential area would generate up to 10 vehicular trips per day (up to 3 trips in the peak hour). This would have minimal effect on traffic load and capacity, traffic safety thresholds, and cumulative impacts. Standard Condition of Approval 68, below, would further reduce these impacts. Project construction traffic impacts would be minimized by Standard Condition of Approval 13, which requires a Construction Management Plan, This impact would therefore be *less than significant*.

17) The project would be a single-family house in a residential area distant from any airport. Therefore it would have *no impact* on air traffic paths or safety.

Standard Conditions of Approval

Standard Condition 13. Construction Management Plan

Prior to the issuance of the first construction-related permit, the project applicant and his/her general contractor shall submit a Construction Management Plan (CMP) for review and approval by the Bureau of Planning, Bureau of Building, and other relevant City departments such as the Fire Department and the Public Works Department as directed. The CMP shall contain measures to minimize potential construction impacts including measures to comply with all construction-related Conditions of Approval (and mitigation measures if applicable) such as dust control, construction emissions, hazardous materials, construction days/hours, construction traffic control, waste reduction and recycling, stormwater pollution prevention, noise control, complaint management, and cultural resource management (see applicable Conditions below). The CMP shall provide project-specific information including descriptive procedures, approval documentation, and drawings (such as a site logistics plan, fire safety plan, construction phasing plan, proposed truck routes, traffic control plan, complaint management plan, construction worker parking plan, and litter/debris clean-up plan) that specify how potential construction impacts will be minimized and how each construction-related requirement will be satisfied throughout construction of the project.

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

Standard Condition 68. Construction Activity in the Public Right-of-Way

a. Obstruction Permit Required

Requirement: The project applicant shall obtain an obstruction permit from the City prior to placing any temporary construction-related obstruction in the public right-of-way, including City streets and sidewalks.

When Required: Prior to approval of construction-related permit

Initial Approval: Bureau of Building

Monitoring/Inspection: Bureau of Building

b. Traffic Control Plan Required

Requirement: In the event of obstructions to vehicle or bicycle travel lanes, the project applicant shall submit a Traffic Control Plan to the City for review and approval prior to obtaining an obstruction permit. The project applicant shall submit evidence of City approval of the Traffic Control Plan with the application for an obstruction permit. The Traffic Control Plan shall contain a set of comprehensive traffic control measures for auto, transit, bicycle, and pedestrian detours, including detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes. The project applicant shall implement the approved Plan during construction.

When Required: Prior to approval of construction-related permit

Initial Approval: Public Works Department, Transportation Services Division

Monitoring/Inspection: Bureau of Building

c. Repair of City Streets

Requirement: The project applicant shall repair any damage to the public right-of way, including streets and sidewalks caused by project construction at his/her expense within one week of the occurrence of the damage (or excessive wear), unless further damage/excessive wear may continue; in such case, repair shall occur prior to approval of the final inspection of the construction-related permit. All damage that is a threat to public health or safety shall be repaired immediately.

When Required: Prior to building permit final

Initial Approval: N/A

Monitoring/Inspection: Bureau of Building

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

XVII. UTILITIES AND SERVICE SYSTEMS --

Would the project:

1. Exceed wastewater treatment requirements of the San Francisco Bay Regional Water Quality Control Board?

X

2. Require or result in construction of new storm water drainage facilities or expansion of existing facilities, construction of which could cause significant environmental effects?

X

3. Exceed water supplies available to serve the project from existing entitlements and resources, and require or result in construction of water facilities or expansion of existing facilities, construction of which could cause significant environmental effects?

X

4. Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the providers' existing commitments and require or result in construction of new wastewater treatment facilities or expansion of existing facilities, construction of which could cause significant environmental effects?

X

5. Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs and require or result in construction of landfill facilities or expansion of existing facilities, construction of which could cause significant environmental effects?

X

6. Violate applicable federal, state, and local statutes and regulations related to solid waste?

X

7. Violate applicable federal, state and local statutes and regulations relating to energy standards?

X

8. Result in a determination by the energy provider which serves or may

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the providers' existing commitments and require or result in construction of new energy facilities or expansion of existing facilities, construction of which could cause significant environmental effects?

X

Explanation:

- 1, 3, 4) Water and wastewater service to the site would be provided by the East Bay Municipal Utility District. The addition of a single house in an established residential area with existing water and sewer lines (in Manzanita Drive and Skyline Boulevard) would not exceed any treatment requirements, result in the need for new or expanded water or sewage treatment facilities, or new water supplies. The impact would be *less than significant*.
- 2) The project would include a stormwater dissipator that would result in most of the project's increased runoff being absorbed into the lower portion of the site. Any increase in runoff to Skyline Boulevard would be minimal, considering the less-than 3,000 sq. ft. increase in the site's impervious surface. The impact would be *less than significant*.
- 5, 6) Construction would generate solid wastes of materials and supplies used in construction. Operation of the house would generate small amounts of household solid wastes. Construction wastes would be recycled to the maximum extent feasible per Standard Condition of Approval 74, below. Residential solid waste would be handled by Waste Management of Alameda County, under its franchise agreement with the City of Oakland. Household waste from a single house would minimally affect that provider, who already services the project area. The impact would be *less than significant*.
- 7) The project house would be required to be constructed to the standards set forth in the California Green Building Requirements, in Standard Condition 77. Even absent this requirement, the impact of a single, 3000 sq. ft. house would be *less than significant*. The condition would further reduce the project's energy consumption.
- 8) The project's gas and electrical energy would be provided by Pacific Gas and Electric Company, from existing power lines and gas mains along Manzanita Drive. The demands of a single, approximately 3000 sq. ft. house, would not noticeably affect supplies and no new facilities would be required (other than minor extensions to the house from the street, per standard Condition 75). (*Less than Significant Impact*)

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

Standard Conditions of Approval

Standard Condition 74. Construction and Demolition Waste Reduction and Recycling

Requirement: The project applicant shall comply with the City of Oakland Construction and Demolition Waste Reduction and Recycling Ordinance (chapter 15.34 of the Oakland Municipal Code) by submitting a Construction and Demolition Waste Reduction and Recycling Plan (WRRP) for City review and approval, and shall implement the approved WRRP. Projects subject to these requirements include all new construction, renovations/alterations/modifications with construction values of \$50,000 or more (except R-3 type construction), and all demolition (including soft demolition) except demolition of type R-3 construction. The WRRP must specify the methods by which the project will divert construction and demolition debris waste from landfill disposal in accordance with current City requirements. The WRRP may be submitted electronically at www.greenhalosystems.com or manually at the City’s Green Building Resource Center. Current standards, FAQs, and forms are available on the City’s website and in the Green Building Resource Center.

When Required: Prior to approval of construction-related permit

Initial Approval: Public Works Department, Environmental Services Division

Monitoring/Inspection: Public Works Department, Environmental Services Division

Standard Condition 75. Underground Utilities

Requirement: The project applicant shall place underground all new utilities serving the project and under the control of the project applicant and the City, including all new gas, electric, cable, and telephone facilities, fire alarm conduits, street light wiring, and other wiring, conduits, and similar facilities. The new facilities shall be placed underground along the project’s street frontage and from the project structures to the point of service. Utilities under the control of other agencies, such as PG&E, shall be placed underground if feasible. All utilities shall be installed in accordance with standard specifications of the serving utilities.

When Required: During construction

Initial Approval: N/A

Monitoring/Inspection: Bureau of Building

Standard Condition 77. Green Building Requirements

a. Compliance with Green Building Requirements During Plan-Check

Requirement: The project applicant shall comply with the requirements of the California Green Building Standards (CALGreen) mandatory measures and the applicable requirements of the City of Oakland Green Building Ordinance (chapter 18.02 of the Oakland Municipal Code).

- i. The following information shall be submitted to the City for review and approval with the application for a building permit:
 - Documentation showing compliance with Title 24 of the current version of the California Building Energy Efficiency Standards.

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------	---	--	------------------------------	-----------

- Completed copy of the final green building checklist approved during the review of the Planning and Zoning permit.
 - Copy of the Unreasonable Hardship Exemption, if granted, during the review of the Planning and Zoning permit.
 - Permit plans that show, in general notes, detailed design drawings, and specifications as necessary, compliance with the items listed in subsection (ii) below.
 - Copy of the signed statement by the Green Building Certifier approved during the review of the Planning and Zoning permit that the project complied with the requirements of the Green Building Ordinance.
 - Signed statement by the Green Building Certifier that the project still complies with the requirements of the Green Building Ordinance, unless an Unreasonable Hardship Exemption was granted during the review of the Planning and Zoning permit.
 - Other documentation as deemed necessary by the City to demonstrate compliance with the Green Building Ordinance.
- ii. The set of plans in subsection (i) shall demonstrate compliance with the following:
- CALGreen mandatory measures.
 - All pre-requisites per the green building checklist approved during the review of the Planning and Zoning permit, or, if applicable, all the green building measures approved as part of the Unreasonable Hardship Exemption granted during the review of the Planning and Zoning permit.
 - All green building points identified on the checklist approved during review of the Planning and Zoning permit, unless a Request for Revision Plan-check application is submitted and approved by the Bureau of Planning that shows the previously approved points that will be eliminated or substituted.
 - The required green building point minimums in the appropriate credit categories.

When Required: Prior to approval of construction-related permit

Initial Approval: Bureau of Building

Monitoring/Inspection: N/A

b. Compliance with Green Building Requirements During Construction

Requirement: The project applicant shall comply with the applicable requirements of CALGreen and the Oakland Green Building Ordinance during construction of the project.

The following information shall be submitted to the City for review and approval:

- i. Completed copies of the green building checklists approved during the review of the Planning and Zoning permit and during the review of the building permit.
- ii. Signed statement(s) by the Green Building Certifier during all relevant phases of construction that the project complies with the requirements of the Green Building Ordinance.

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------------	--	--	------------------------------------	--------------

iii. Other documentation as deemed necessary by the City to demonstrate compliance with the Green Building Ordinance.

When Required: During construction

Initial Approval: N/A

Monitoring/Inspection: Bureau of Building

c. Compliance with Green Building Requirements After Construction

Requirement: Within sixty (60) days of the final inspection of the building permit for the project, the Green Building Certifier shall submit the appropriate documentation to Build it green or the Green Building Certification Institute, as applicable, and attain the minimum required certification/point level. Within one year of the final inspection of the building permit for the project, the applicant shall submit to the Bureau of Planning the Certificate from the organization listed above demonstrating certification and compliance with the minimum point/certification level noted above.

When Required: After project completion as specified

Initial Approval: Bureau of Planning

Monitoring/Inspection: Bureau of Building

Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less than Significant with Standard Conditions of Approval	Less than Significant Impact	No Impact
--------------------------------------	--	--	------------------------------------	--------------

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE

1. 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?

2. 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.)

3. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Explanation:

- 1) The proposed project could have the potential to adversely affect a special-status plant, the pallid manzanita. This impact would be reduced to a less-than-significant level by Mitigation Measure BIO-1. It also could affect nesting raptors and protected trees, and the Alameda Whipsnake. Impacts to these biological resources would be reduced to a less-than significant level by Standard Conditions of Approval 26, 27, and 28. Therefore these impacts would be *potentially significant but mitigated* to a less-than-significant level. The project would not affect any historic or prehistoric resources.
- 2) As detailed above, the addition of a single house to an existing residential neighborhood would have no potential to contribute in a cumulatively considerable manner to any cumulative environmental impacts. (*No Impact*)
- 3) As detailed above, the project would not result in any potentially hazards or health risks to humans, either directly or indirectly. Potentially significant wildfire hazards would be reduced to a *less-than-significant* level through the implementation of Standard Condition of Approval 43.

APPENDIX A: BIOLOGICAL RESOURCES REPORT



WOOD BIOLOGICAL CONSULTING, Inc.

65 Alta Hill Way
Walnut Creek, CA 94595

Tel: (925) 899-1282

Fax: (925) 939-4026

e-mail: mike@wood-biological.com

www.wood-biological.com

June 17, 2016

Tambri Heyden
David Montalbo
1731 First Avenue
Walnut Creek, CA 94597

RE: Assessment of Project Effects on Pallid Manzanita and Protection Measures, Manzanita Drive, Oakland

Dear David and Tambri:

As you are aware, your property on Manzanita Drive in the City of Oakland (APN 48E-7320-28; see Figure 1) supports two mature individuals of the federally and State-listed plant species pallid manzanita (*Arctostaphylos pallida*). Impacts to these plants are regulated under the California Endangered Species Act (CESA) and would be deemed significant pursuant to the guidelines of the California Environmental Quality Act (CEQA).

In support of the City of Oakland's CEQA analysis, this memorandum has been prepared to document the current status of these plants, summarize additional studies that have been performed in an attempt to protect these plants and to enhance the habitat in which they occur, to document design modifications that have been undertaken to preserve the plants, and to outline the permitting and mitigation measures undertaken to conform to both CEQA and CESA.

Project Description

The proposed project consists of the construction of a new single-family home on an unimproved 8097 square foot lot. The proposed home would have two stories with a garage below the existing ground level. It would include 2957 square feet of heated living space with four bedrooms, three-and-a-half bathrooms, kitchen, living room, and external decks. The proposed project would require surface grading in the proximity of two pallid manzanitas. A plan view illustrating the location of these plants relative to the new home is attached (Figure

2). A preliminary evaluation of the property and the pallid manzanita plants was prepared by Wood Biological Consulting, Inc. (2015).

Setting

The subject parcel is situated at the top of a narrow ridge representing the dividing line between residential neighborhoods and undeveloped natural lands controlled by the East Bay Regional Park District (EBRPD). The narrow parcel is situated on a south-southwest facing slope, between two existing single-family homes. Although the southwest-facing side of the ridge supports extensive residential development and surface streets, it is well-wooded with a combination of native and non-native trees and brush. A swim and tennis club (The Hills) is located just to the east of the subject parcel.

Although native trees and shrubs are present on site, representing remnants of the habitats present on the north side of the ridge, vegetation on site is dominated by planted, non-indigenous trees and is characterized as anthropogenic woodland. Other habitats occurring on site include landscaped, non-native annual grassland, ruderal and Santa Barbara sedge meadow. No wetlands, surface tributaries, or open channels are cross the study area. A discussion of the vegetative and wildlife habitats present on site follows. The location and extent of each habitat type are illustrated Figure 3.

Within the study area, anthropogenic woodland dominates the study area. This habitat consists of a mature overstory of Monterey cypress (*Hesperocyparis macrocarpa*). Although native to the Central Coast of California, Monterey cypress is not indigenous to the Oakland Hills and the trees that occur here were planted. Remnants of the native oak/bay woodland that occurs in the vicinity are also present, and include California bay (*Umbellularia californica*) and madrone (*Arbutus menziesii*). Remnants of coastal maritime chaparral, another native plant community that occurs in the vicinity, include coffeeberry (*Frangula californica*) and pallid manzanita. Seedlings of coast live oak (*Quercus agrifolia*) are also present. The understory is open, mostly devoid of shrubs, and is dominated by the invasive species veldt grass (*Ehrharta erecta*). Other non-native herbs present commonly encountered include common chickweed (*Stellaria media*), ripgut brome (*Bromus diandrus*), Italian thistle (*Carduus pycnocephalus*), hedgehog dogtail (*Cynosurus echinatus*), field hedge parsley (*Torilis arvensis*), and foxtail barley (*Hordeum murinum* ssp. *leporinum*), among others. Native herbs detected include manroot (*Marah fabaceus*), Santa Barbara sedge (*Carex barbarae*), and bittercress (*Cardamine oligosperma*).

A small area of landscaping is present in the northwestern corner of the property, at the edge of Manzanita Drive. This area is dominated by English holly (*Ilex aquifolium*) and Chinese juniper (*Juniperus chinensis*).

Non-native annual grassland occurs beneath the canopy of the woodland and in canopy openings. It is dominated by the invasive species veldtgrass. Other non-native herbs present commonly encountered include common chickweed, ripgut brome, Italian thistle, hedgehog

dogtail, field hedge parsley, and foxtail barley (*Hordeum murinum* ssp. *leporinum*), among others.

Although much of the study area has been altered historically by clearing, planting and natural regeneration of the vegetation has resulted in the formation of the habitats discussed in this section. Ruderal habitat therefore is comprised of a small patch of weedy, highly disturbed ground that would not be characterized as non-native annual grassland. This habitat is dominated by Italian thistle and poison hemlock (*Conium maculatum*). Also present are veldtgrass and the native shrub coyotebrush (*Baccharis pilularis*).

A single patch of the native perennial Santa Barbara sedge is present in an opening in the canopy at the southeastern corner of the parcel. Other species present include California blackberry (*Rubus ursinus*) and coyote brush. Scattered individuals of Santa Barbara sedge are also present in the understory of the woodland. Given the lack of wetland hydrology, this patch of Santa Barbara sedge does not meet the federal criteria for a wetland; impacts would not be regulated under the Clean Water Act (CWA).

Pallid Manzanita

Pallid manzanita was listed as Threatened under the federal Endangered Species Act (FESA) on April 22, 1998¹ and as Endangered under CESA in November 1979. The species has an extremely limited range, occurring only in chaparral habitat and at the edges of woodlands in the East Bay hills. It is found from Sobrante Ridge in Contra Costa County southward through Huckleberry Ridge in Alameda County. The entire geographic range of pallid manzanita is illustrated in Figure 4. The greatest concentration of pallid manzanita plants is found in and around Huckleberry Botanic Regional Preserve, which is owned and managed by the East Bay Regional Park District (EBRPD). The subject parcel is situated near this cluster of populations, as shown in Figure 5.

Pallid manzanita (*Arctostaphylos pallida*) is a perennial evergreen shrub in the heath family (Ericaceae). It is an erect shrub growing 2-4 m (6.5-13 ft) tall with rough, gray, or reddish bark. The terminal branches are bristly and covered with fine whitish hairs. The pale green leaves are overlap, heart-shaped, and appearing to surround the stem. Leaves are 2.5-4.5 cm (1-1.8 in) long. Flowers are white, rose, or white-rose in color, urn-shaped, and 6-7 mm (0.2-0.3 in) long. Flowering occurs December through March. Pallid manzanita reproduces only by seed and does not produce basal burls as is the case with many other species of manzanita.

Pallid manzanita is found in the northwestern extremity of the Diablo Range, at 200-445 m (656-1,460 ft) in elevation. Pallid manzanita is endemic to the San Francisco East Bay. There are two geographic areas that support pallid manzanita: Huckleberry Ridge in Alameda County

¹ 63 FR 19842-19850

and Sobrante Ridge in Contra Costa County. Based on the most recent estimate, there are some 1353 pallid manzanita plants remaining in the wild (USFWS, 2015).

Pallid manzanita is a component of the maritime chaparral vegetation type. The primary soil type on which pallid manzanita occurs is Millsholm loam. The Millsholm series consists of shallow, well-drained soils that formed in material weathered from sandstone, mudstone, and shale. Like most manzanitas, pallid manzanita requires fires for regeneration. It is highly intolerant of shading and plants will slowly die when shaded by larger trees and shrubs.

Most of the stands of pallid manzanita are on lands owned by EBRPD and not subject to further residential development. However, approximately 36 percent of all plants are on private property and are at risk from development (USFWS, 2015). This threat is somewhat ameliorated for plants occurring on steep slopes. The species is also threatened by spread of an incurable and virulent non-native pathogen, *Phytophthora cinnamomi*.

Plant #1

Pallid manzanita Plant #1 (see Figure 3 and Photos 1-4 [Attachment A]) consists of a multi-stemmed, rounded shrub approximately 7 feet tall and 8 feet in diameter. It is growing on relatively thin soils on a slight knoll. The specimen is in a relatively open setting, affording it a mostly open exposure. Although the plant appears to be in overall good health, there are many dead or senescent branches within the canopy. In addition, an Atlas cedar (*Cedrus atlantica*) rooted on the property to the east overhangs a portion of the manzanita. Perhaps as much as 25% of the canopy of the manzanita is exhibiting signs of die-back, quite possibly due to fog drip coming off of the cedar's branches. The surrounding ground supports non-native annual grasses such as ripgut brome (*Bromus diandrus*), hedgehog dogtail (*Cynosurus echinatus*), silver hairgrass (*Aira caryophyllea*), and veldtgrass (*Ehrharta erecta*). Abundant seedlings of the highly invasive French broom (*Genista monspessulana*) surround the plant. Several seedlings of madrone (*Arbutus menziesii*) and coast live oak (*Quercus agrifolia*) were also noted.

Plant #1 will be preserved and incorporated into the front yard of the home. Grading for the new driveway would occur 4 feet outside of the dripline of the canopy to the west of the shrub. A paved entrance walkway would be constructed at-grade between 0 and 1 foot outside of the dripline, also to the west. To the south, grading for the home's foundation would occur 4 feet outside of the dripline of the shrub. During grading, it is possible that this work will require the pruning of roots of the shrub. No pruning of branches is proposed.

Plant #2

Pallid manzanita Plant #2 consists of a much older specimen rooted near the eastern property boundary (see Figure 3 and Photos 5-8 [Attachment A]). With a main stem as large as 8 inches in diameter, the plant is about 12 feet tall and 6 feet wide. Shown as a

madrone on the survey map, this pallid manzanita plant has been greatly impacted by human activity and by shading from non-native trees. As is evident in the photographs, branches have been pruned in the distant past and the trunk has been partially buried by grading activities. Although not uncommon in manzanitas, and not necessarily indicative of a plant's overall health, Plant #2 has numerous large, dead branches and bark striping where longitudinal stem sections have died. This plant is growing entirely in the understory of other trees including madrone, California bay (*Umbellularia californica*), and Monterey cypress (*Hesperocyparis macrocarpa*).

Plant #2 is situated near the mid-point of the property's eastern edge. It will be preserved and incorporated into the side yard of the home. Grading for the home's foundation would occur 6 feet downslope (west) of the plant's trunk and 14.5 feet cross-slope (north), also from the plant's trunk. During grading, it is possible that this work will require the pruning of roots of the shrub. As many as three of the 15 foot-long long branches leaning to the north would be pruned back to facilitate construction, and creating a more even canopy.

No other pallid manzanita plants (seedlings or young plants) are present elsewhere on the property and none was noted growing on adjacent lands in the immediate vicinity of the property. In addition, no other skeletons of pallid manzanitas are present on site.

Analyses

In the course of refining the project design, developing appropriate impact avoidance, minimization, and mitigation measures, and in response to concerns raised by California Department of Fish and Wildlife (CDFW), a variety of analyses were undertaken.

Shading Study

In an effort to understand to what degree the project would affect light reaching the two pallid manzanita plants, a comparison of the pre- and post-project shading were also evaluated. A shading study was prepared by project architect Mr. John Newton.² For his shading study, Mr. Newton evaluated shading of the two manzanita plants at three different hours for the spring and fall equinox. The analysis takes in to consideration both shading that would result from construction of the new two-story home as well as the removal and trimming of numerous trees that currently shade the pallid manzanita plants.

Viewed from directly above the lot, the amount of the canopy of plants 1 and 2 clearly increases for the morning, noon, and afternoon hours on March 20 and on September 22. By reducing the tree canopies above each plant, not only is the amount of direct and/or diffuse sunlight reaching the plants below increased, but the source of summer fog drip is reduced.

² John Newton Design and Development

Based on Mr. Newton's study, the overall light conditions for both pallid manzanita plants are improved with the proposed project compared to the existing conditions (see Figure 6a and 6b).

Canopy Analysis

In the course of discussions with CDFW the idea of enhancing site conditions to favor pallid manzanita was raised. Because the species is relatively intolerant of conditions found beneath tree canopies, the removal of additional trees on site was suggested. However, CDFW raised the concern that the sudden removal of tree canopy could cause "sun shock" to the pallid manzanitas. To address this, the applicants submitted a proposal to construct a shade structure over each plant using commercially available shade cloth. The concern was raised that our suggested shade cloth weight (% shade) may not represent current conditions. To help prescribe the proper shade cloth weight, CDFW requested that a canopy study be conducted using a densitometer.

On May 25 at noon, Mr. Wood took four readings for each plant, one from each cardinal bearing around the plant canopy (see Figure 1). The readings indicate the amount (percent) of sky that is blocked by the tree canopy directly overhead. Canopy cover measurements were made using an app called Canopy App, created by the University of New Hampshire.³ These data are presented in Table 1.

Table 1
Percent Canopy Cover/Cardinal Bearing

	N	W	E	S	avg.
Plant #1	26.9	20.1	26.6	57.6	32.8
Plant #2	70.4	52.6	57.1	51.2	57.8

Unfortunately, densitometer readings do not translate directly into percent shade (or light availability) as site exposure and slope aspect are not factored into the measurements. Considering the site's southern aspect and that a majority of the tree canopy is downslope of the manzanitas, the percent shade is very likely to be higher than is indicated by the percent canopy directly overhead.

Considering these factors, it was proposed that the shade structures utilize 40% shade cloth over plant # 1 and 60% shade cloth over plant #2 for the first full growing season following construction. After the first year of monitoring, based on evidence of plant vigor and the post-construction conditions, it would be determined if the shade structures could be safely removed.

³ This free app serves the same function of a spherical densitometer, and is available at <https://itunes.apple.com/us/app/canopyapp/id926943048?mt=8>

Habitat Assessment

The CDFW requested an evaluation of suitable habitat for pallid manzanita present on site and an assessment of that habitat which would be disturbed as a result of project implementation. A primary element influencing the distribution of pallid manzanita is the presence of sandstone base material at the surface. Lower on the slope, there is a layer of accumulated loamy material high in organics overlying the sandstone, rendering it unsuitable for the establishment of pallid manzanita without excavation. The limits of suitable substrate are shown in Figure 7.

Superimposing the grading plan, the proposed project is expected to cause the permanent loss of approximately 2400 square feet of habitat for pallid manzanita and temporary loss of approximately 1000 square feet of habitat for the species (Figure 8).

Discussion

Because construction of a single-family home on the site will not require federal regulatory permits and will not receive federal funding, impacts to this federally listed species are not restricted under FESA. However, impacts are restricted under CESA. Informal consultation was initiated with the CDFW to begin the process of evaluating project effects. Discussions were held with Environmental Scientist Ms. Marcia Grefsrud of the CDFW.⁴ It was determined that the project applicants would be required to submit an application for an Incidental Take Permit (ITP) pursuant to CESA.⁵

A variety of alternatives were discussed as a means of avoiding, minimizing and mitigation project effects. These are described below.

Impact Avoidance and Minimization Measures

As initially designed, the proposed single-family home called for the removal of the two pallid manzanita plants occurring on site. Based on comments by Ms. Grefsrud, the applicants modified the home design to avoid the need to remove the plants entirely and to restrict grading outside of the dripline of each plant.

However, given the location of the two pallid manzanita plants on site relative to the buildable portion and narrowness of the lot, complete avoidance all physical damage to above- and below-ground plant parts is not practicable. Even with project redesign, the trimming of as many as three branches of Plant #2 is expected. And because grading would occur within the root protection zone⁶ of both plants, there is a high likelihood that

⁴ CDFW Bay Delta Region (Region 3); (707) 644-2812; Marcia.Grefsrud@wildlife.ca.gov

⁵ § 2081 (b) and (c)

⁶ The root protection zone may be considered to be 1.5 time the diameter of the plant canopy.

roots of both plants #1 and #2 will need to be trimmed. The removal of any plant parts is considered a “take” pursuant to CESA, requiring the application for an ITP.⁷

In order to minimize the potentially adverse effects of the pruning of roots, the following measures are proposed:

- a) Activities that could require root pruning shall be performed during the dormant summer season.
- b) Grading performed within a five (5) foot buffer outside of the dripline of pallid manzanitas shall be performed with the smallest equipment necessary to undertake the work and under supervision of a qualified botanist or plant ecologist. As soon as manzanita roots are encountered, soil shall be loosened only by the use of hand tools (shovels, wrecking bars, etc.) taking care to minimize directly injuring roots.
- c) In the course of grading within the five foot buffer zone for plants 1 and 2, exposed root shall be pruned cleanly using loppers or a pruning saw. Only sanitized equipment shall be used to prevent the spread of soil-borne pathogens.
- d) The project botanist/plant ecologist shall document grading activities proximal to both pallid manzanita plants. The extent of root pruning shall be quantified and documented. A brief compliance memo will be provided to CDFW upon the completion of work.

In order to minimize the potentially adverse effects of the pruning of above-ground branches, the following measures are proposed.

- a) The optimal season for pruning manzanitas is the dormant summer season, before new buds are set with the onset of cool fall nights.
- b) Pruning of a maximum of three overhanging branches of Plant #2 shall be performed by a qualified arborist under the supervision of a qualified botanist or plant ecologist using loppers or a pruning saw. Only sanitized equipment shall be used to prevent the spread of pathogens.
- c) The project botanist/plant ecologist shall document the extent of branch pruning.

Mitigation Measures

As mitigation for the adverse effects of construction on the pallid manzanita plants, a variety of mitigation measures are proposed. These include habitat enhancement, habitat preservation, and post construction monitoring.

In order to enhance the existing habitat in which the pallid manzanita plants occur, the following measures are proposed:

⁷ Email from M. Grefsrud to M. Wood dated February 16, 2016

- a) Shading by non-native invasive species trees has been cited as a significant threat to pallid manzanita, as the species is highly shade intolerant, and represents one of the most significant threats to the species (USFWS, 2015). Tree invasion into stands of pallid manzanita causes shrubs to slowly die over several years (USFWS, 2015). Shading lowers seed production, reduces vegetative growth, causes branch dieback, and ultimately results in plant death (USFWS, 2015).
- b) Therefore, to increase light exposure to the conserved pallid manzanita plants, a total of 16 trees shall be removed. These trees are shown on Figure 9. The results of a shading study are presented in shown in Figures 6a and 6b). In addition, as much as 30 percent of the canopy of the Atlas cedar above Plant #1 will be pruned to reduce fog drip onto the plant from the canopy above.
- c) As discussed above, the shading analysis indicates that the proposed project would have a net benefit to the pallid manzanita plants by increasing light exposure and reducing overhead tree canopy, a source of summer fog drip.

To preserve the micro-habitat conditions that are appropriate for the maintenance of the two conserved pallid manzanita sites, the following measures shall be agreed to by the home owners:

- a) Neither of the pallid manzanitas shall be irrigated. Irrigation of landscaping shall not occur within the root protection zone, defined as an area 1.5 times the diameter of each shrub. Manzanitas are accustomed to long dry periods during the summer months. The addition of summer irrigation during the warm season fosters the growth of pathogens which may cause the death of manzanitas.
- b) No horticultural varieties of manzanitas shall be planted on the property to avoid hybridization.
- c) No shrubs or trees shall be planted in proximity to the pallid manzanita plants to prevent crowding, shading or collection of summer fog drip.

As a means of documenting adverse effects of pruning on the conserved pallid manzanitas, monitoring is proposed. Because manzanitas are well-known to exhibit signs of senescence quite rapidly following soil disturbance (M. Wood, pers. obs.), monitoring of plant health for a period of at least one year is proposed. Given that the existing condition of the plants is marginal at best, attributing plant demise to specific construction activities over a longer period is questionable, as other environmental variables come into play. The following measures will be incorporated into the monitoring effort:

- a) Prior to construction, baseline photographs of each plant will be taken from all four compass bearings, along with overview pictures from designated photo points.
- b) Upon the completion of grading activities within the buffer zone for plants 1 and 2, inspections of the pallid manzanita plants will be performed by a qualified botanist/plant ecologist. Inspections shall be performed monthly for the first six

months, then every two months thereafter. A final inspection shall be performed 12 months after grading. During each inspection, photographs from designated photo points shall be taken and notes on current climate, soil moisture, leaf and stem condition, and site conditions shall be recorded in a log.

- c) If at any time during the one-year monitoring period a sudden, significant or sudden decline in plant health is noted, the CDFW shall be immediately contacted to discuss appropriate remediation measures.
- d) In the event of an evident decline in plant vigor, remediation measures may include making modifications to the immediate environment (e.g., tree pruning, vegetation removal, removal of organic material from the soil surface, elimination of irrigation outside of the root protection zone).
- e) In the event either of the pallid manzanita shrubs dies or exhibits serious signs of decline during the one-year monitoring period, the CDFW shall be consulted to identify appropriate compensation measures for their loss. Potential mitigation may include (but is not limited to) the following:
 - i. Payment of in-lieu fees to the CDFW's Propagation Fund or comparable program.
 - ii. Contribution of funds to a non-profit conservation-oriented organization directly involved with the preservation of pallid manzanita. Such organizations might include the Friends of Sausal Creek (FOSC)⁸, East Bay Regional Park District (EBRPD)⁹, East Bay Municipal Utility District (EBMUD)¹⁰, University of California at Berkeley Botanical Garden¹¹, University of California Berkeley (UCB) or San Francisco State University

⁸ FOSS is actively involved in a program to enhance habitat for pallid manzanita at the Chabot Space and Science Center. <http://www.sausalcreek.org/>

⁹ The EBRPD controls the Huckleberry Botanical Regional Preserve, which supports the largest, most intact population of pallid manzanita. EBRPD also operates a botanic garden and nursery involved with the propagation, display, and sale of local native plants.

¹⁰ EBMUD has a Watershed Management Plan (WMP) which defines its long-term management of EBMUD lands; the 1999 plan is being revised (https://www.ebmud.com/index.php/download_file/force/1010/189/?EBMUD_Watershed_Master_Plan_3.pdf). EBMUD has also implemented a Habitat Conservation Plan (HCP) for 28,200 acres in the East Bay (https://www.ebmud.com/index.php/download_file/force/1007/189/?HCP_0.pdf). The HCP covers pallid manzanita and EBMUD has developed programs to promote environmental education and research into rare species found on its lands.

¹¹ The UC Botanical Garden promotes research of a wide variety of topics related to the flora and fauna of California and elsewhere. Opportunities to contribute to research efforts regarding pallid manzanita ecology, reproductive biology, and pathogens may exist.

(SFSU) research program¹², and the University of California Jepson Herbarium¹³.

- f) At the end of the one-year monitoring period, a summary report shall be prepared documenting observations and presenting conclusions regarding the health and vigor of the conserved pallid manzanitas. The report shall be submitted to the CDFW for review. If no adverse effects on plant health or vigor have been noted, no further monitoring shall be required and the applicant shall be release of further liability related to this ITP. If adverse effects have been noted, remediation or compensation measures shall be negotiated, as discussed above.

Conclusions

As modified, the proposed construction of a single-family home would result in the pruning of branches and potentially roots of pallid manzanita, a federally and State-listed endangered plant. Pursuant to CESA, an ITP is required to prune a State-listed plant species.

An ITP is not required pursuant to FESA as listed plant species are not formally protected under the ACT unless a federal permit or federal funding are involved. Under Section 2081 subdivision (b) of the California Fish and Game Code, the CDFW may issue an ITP for a listed or candidate species if specific criteria are met. These criteria are as follows:

1. The authorized take is incidental to an otherwise lawful activity;
2. The impacts of the authorized take are minimized and fully mitigated;
3. The measures required to minimize and fully mitigate the impacts of the authorized take:
 - a) are roughly proportional in extent to the impact of the taking on the species,
 - b) maintain the applicant's objectives to the greatest extent possible, and
 - c) may be successfully implemented by the applicant;
4. Adequate funding is provided to implement the required minimization and mitigation measures and to monitor compliance with and the effectiveness of the measures; and
5. Issuance of the permit will not jeopardize the continued existence of a CESA-listed species.

¹² UCB and SFSU science programs have undertaken a great deal of research at the graduate level involving manzanitas and maritime chaparral. Researchers including Dr. Mike Vasey and Dr. V. Thomas Parker very likely have graduate students conducting research on these subjects.

¹³ The University and Jepson Herbaria of the University of California at Berkeley maintains 2.2 million specimens of plants and supports extensive research related to botany, plant ecology, evolution and systematics.

Considering the topography of the site around the two pallid manzanita plants and the nature of the surface soils, grading effects on the roots of both plants is not expected to result in serious injury to the plants or to result in long- or short-term reduction in plant vigor or health.

An application for an ITP has been prepared and submitted to the CDFW for review. The application includes the impact avoidance, minimization and mitigation measures outlined above. The ITP may include additional impact mitigation measures, each of which must be conformed to in accordance with CESA. With the incorporation of these measures, impacts to pallid manzanita would be reduced to a less-than-significant level.

Sincerely,



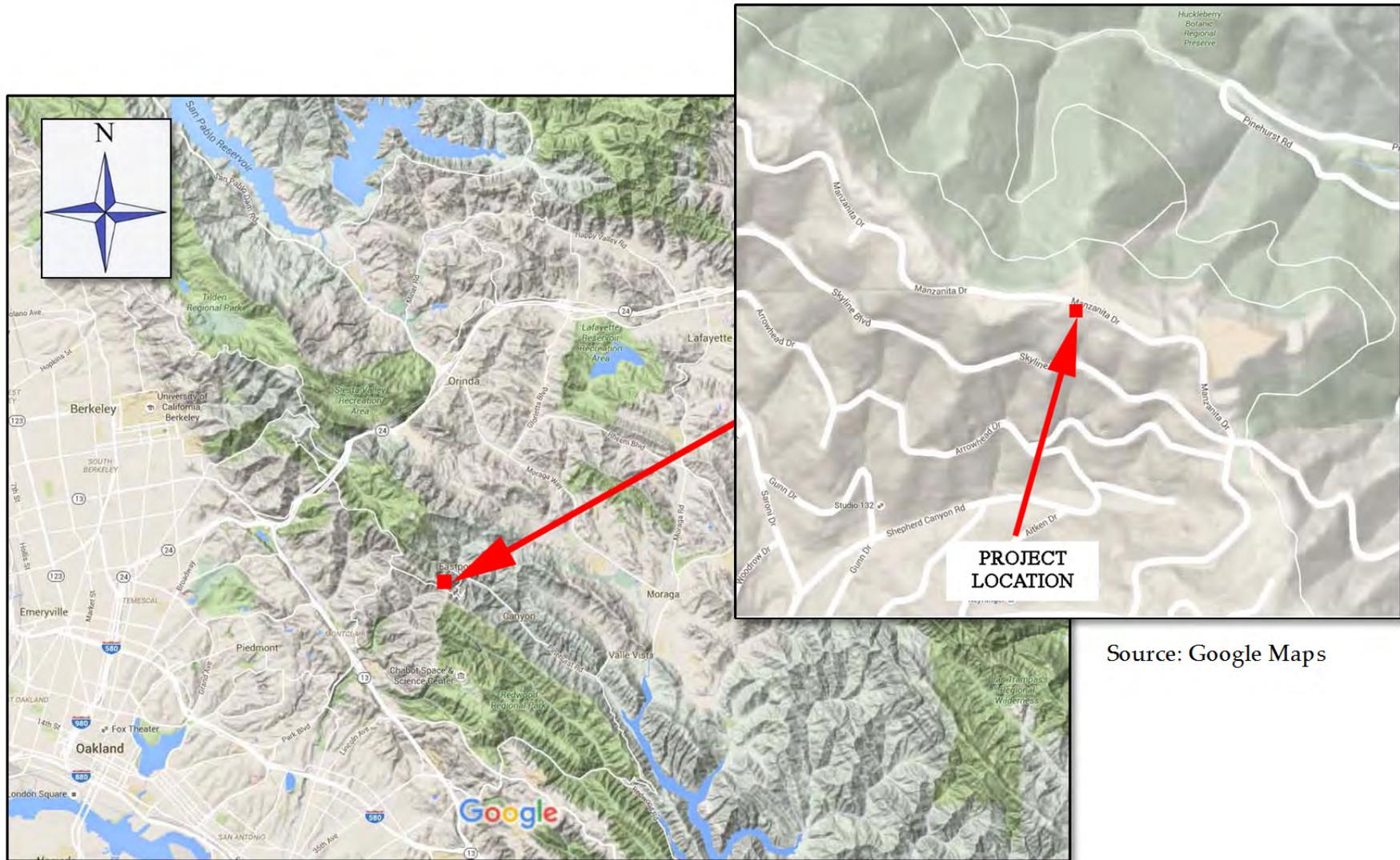
Michael Wood

Enclosures:

- Literature Cited
- Figure 1 – Project Location
- Figure 2 – Locations of Pallid Manzanitas
- Figure 3 – Habitats Occurring Onsite
- Figure 4 – Pallid Manzanita Range Map
- Figure 5 – Pallid Manzanita Range Map in the Project Vicinity
- Figure 6a, b – Shading Study
- Figure 7 – Estimated Extent of Suitable Substrate for Pallid Manzanita
- Figure 8 – Permanent and Temporary Disturbances to Suitable Substrate for Pallid Manzanita
- Figure 9 - Tree Removal Plan
- Attachment A – Site Photographs

Literature Cited

- U.S. Fish and Wildlife Service. 2015. *Recovery plan for Arctostaphylos pallida (pallid manzanita)*. U.S. Fish and Wildlife Service, Pacific Southwest Region, Sacramento, California. vi, + 39 pp. Available online at https://ecos.fws.gov/docs/recovery_plan/A.pallida.RP.2015_Final_7-27-15.pdf
- Wood Biological Consulting, Inc. 2015. *New Residence, Manzanita Drive, Oakland*. Unpublished technical report prepared for Tambri Heyden and David Montalbo. December 24.



Source: Google Maps

Figure 1. Project Location

ABBREVIATIONS

∠	ANGLE	CI.	CAST IRON	E.	EAST	FRMG.	FRAMING	L.F.	LINEAR FOOT	PL.	PLATE OR	SM.	SIMILAR
□	SQUARE	CIP.	CAST INPLACE	EA.	EACH	FT.	FOOT OR FEET	LT.	LIGHT	PLAM.	PROPERTY LINE	SM.	SIMILAR
⊙	CENTERLINE	C.J.	CONSTRUCTION/	ELEC.	ELECTRICAL	FTG.	FOOTING	MB.	MAXIMUM	PLAS.	PLASTER	S.S.	STAINLESS STEEL
⊘	DIAMETER	CONTR.	CONSTRUCTION	ELEC. PAN.	ELECTRICAL PANEL	FURN.	FURNITURE	M.C.	MODIFIED	FR.	FUR	STD.	STANDARD
⊚	PLATE /	CLG.	CLOSET	GLASS	GLASS	CAUSE	CAUSE	MECH.	MECHANICAL	P.V.C.	POLYVINYL	STL.	STEEL
⊛	PROPERTY LINE	CLO.	CLOSET	ELEV.	ELEVATION	GL.	GALVANIZED	MEH.	MEDICAL	PWD.	PLYWOOD	STOR.	STORAGE
AB.	ANCHOR BOLT	CLR.	CLEAR	EMER.	EMERGENCY	GL.BM.	GLASS BRASS	HEMB.	HEMBRANE	R.T.	QUARRY TILE	STRUC.	STRUCTURAL
A.B.C.	AGGREGATE	CHLU.	CONCRETE	ENCL.	ENCLOSURE	GL.BM.	GLASS BRASS	HEMB.	HEMBRANE	Q.	QUARRY TILE	SUSP.	SUSPENDED
	BASE COURSE					GR.	GRADE	HTL.	METAL	G.T.	QUARRY TILE	SYM.	SYMMETRICAL
A.C.	AIR CONDITIONING	CONTRNK.	COUNTERSINK	ENCL.	ENCLOSURE	GR.	GRADE	MFR.	MANUFACTURER	R.A.	RETURN AIR	T.	TREAD
ACOUS.	ACOUSTICAL	CONTR. TOP	COUNTER TOP	EQU.	EQUIPMENT	GRND.	GRADE	MFR.	MIRROR	R.D.	ROOF DRAIN	T&G.	TONGUE AND GROOVE
A.C.	ASPHALTIC	CONTR.	COUNTER	EQU.	EQUIPMENT	GRND.	GRADE	MFR.	MIRROR	R.D.	ROOF DRAIN	THK.	THICK
PAVING	CONCRETE PAVING	CONSTR.	CONSTRUCTION	EXT.	EXTERIOR	GYP. BD.	GYP. BOARD	H.B.	HOSE BIBB	M.TD.	MOUNTED	T.O.C.	TOP OF CURB
ADJ.	ADJUSTABLE	CONC.	CONCRETE	EXT.	EXTERIOR	H.B.	HOSE BIBB	M.TD.	MOUNTED	MUL.	MULLION	T.O.W.	TOP OF WALL
A.F.F.	ADJUSTABLE FLOOR	CONC.	CONCRETE	EXT.	EXTERIOR	H.B.	HOSE BIBB	M.TD.	MOUNTED	MUL.	MULLION	T.S.	TUBE STEEL
AGGR.	AGGREGATE	CONC.	CONCRETE	EXT.	EXTERIOR	H.B.	HOSE BIBB	M.TD.	MOUNTED	MUL.	MULLION	T.T.B.	TELEPHONE TERMINAL BOARD
ALUM.	ALUMINUM	CONTR.	COUNTER	F.D.	FLOOR DRAIN	H.C.	HOLLOW CORE	H.W.	HOT WATER	N.	NORTH	TYP.	TYPICAL
ALT.	ALTERNATE	CONTR.	COUNTER	F.D.	FLOOR DRAIN	H.C.	HOLLOW CORE	H.W.	HOT WATER	N.	NORTH	U.O.N.	UNLESS OTHERWISE NOTED
APPROX.	APPROXIMATE	CONTR.	COUNTER	F.D.	FLOOR DRAIN	H.C.	HOLLOW CORE	H.W.	HOT WATER	N.	NORTH	URNL.	URNAL
ARCH.	ARCHITECTURAL	CONTR.	COUNTER	F.D.	FLOOR DRAIN	H.C.	HOLLOW CORE	H.W.	HOT WATER	N.	NORTH	V.C.T.	VINYL COMPOSITION TILE
ASPH.	ASPHALT	CONTR.	COUNTER	F.D.	FLOOR DRAIN	H.C.	HOLLOW CORE	H.W.	HOT WATER	N.	NORTH	VERT.	VERTICAL
		CONTR.	COUNTER	F.D.	FLOOR DRAIN	H.C.	HOLLOW CORE	H.W.	HOT WATER	N.	NORTH	VTR.	VENT-THRU ROOF
BD.	BOARD	CONTR.	COUNTER	F.D.	FLOOR DRAIN	H.C.	HOLLOW CORE	H.W.	HOT WATER	N.	NORTH	W.	WEST
BLDG.	BUILDING	CONTR.	COUNTER	F.D.	FLOOR DRAIN	H.C.	HOLLOW CORE	H.W.	HOT WATER	N.	NORTH	W/W & W/O	WITH AND WITHOUT
BLK.	BLOCK	CONTR.	COUNTER	F.D.	FLOOR DRAIN	H.C.	HOLLOW CORE	H.W.	HOT WATER	N.	NORTH	W.C.	WATER CLOSET
BLK.G.	BLOCKING	CONTR.	COUNTER	F.D.	FLOOR DRAIN	H.C.	HOLLOW CORE	H.W.	HOT WATER	N.	NORTH	WD	WOOD
BLK.	BLOCK	CONTR.	COUNTER	F.D.	FLOOR DRAIN	H.C.	HOLLOW CORE	H.W.	HOT WATER	N.	NORTH	WDW	WINDOW
BLK.	BLOCK	CONTR.	COUNTER	F.D.	FLOOR DRAIN	H.C.	HOLLOW CORE	H.W.	HOT WATER	N.	NORTH	WP	WEATHERPROOF
BLK.	BLOCK	CONTR.	COUNTER	F.D.	FLOOR DRAIN	H.C.	HOLLOW CORE	H.W.	HOT WATER	N.	NORTH	WR	WATER RESISTANT
BLK.	BLOCK	CONTR.	COUNTER	F.D.	FLOOR DRAIN	H.C.	HOLLOW CORE	H.W.	HOT WATER	N.	NORTH	W.S.	WEEP SCREEN
BLK.	BLOCK	CONTR.	COUNTER	F.D.	FLOOR DRAIN	H.C.	HOLLOW CORE	H.W.	HOT WATER	N.	NORTH	WT.	WEIGHT

OWNER/DEVELOPER DRAWING NOTE

TYPICAL OWNER/DEVELOPER BUILDING PERMIT SET OF DRAWINGS:

THESE DRAWINGS ARE INTENDED FOR BUILDING PERMIT APPROVAL AND ARE NOT INTENDED TO BE A COMPREHENSIVE SET OF DRAWINGS INDICATING SPECIFIC CABINETS, PAINT COLORS, SPECIFIC PLUMBING FIXTURES, LIGHTING FIXTURES, INTERIOR FINISHES, DOOR & WINDOW HARDWARE, INTERIOR & EXTERIOR DETAILS OR FINISH CARPENTRY (STAIR RAILS, ETC.) OWNER/DEVELOPER IS RESPONSIBLE FOR THE SELECTION OF THESE ITEMS AND CLARIFICATION AND COORDINATION OF THESE WITH THE CONTRACTOR AS PART OF THE BUILDING CONTRACT AND CONSTRUCTION PROCESS. PER THE DESIGNER/OWNER CONTRACT, ADDITIONAL DETAILS, DRAWINGS AND COORDINATION MAY BE PROVIDED BY THE DESIGNER AS AN ADDITIONAL SERVICE AND BE CONSIDERED AN ADDENDUM TO THE BUILDING PERMIT SET OF DRAWINGS IF REQUESTED BY OWNER.

NEW RESIDENCE
Manzanita Drive, Oakland, CA 94603
APN: 48E-7320-28

LANDSCAPE NOTES

- IRRIGATION SYSTEM TO BE INSTALLED TO PROVIDE WATER FOR TREES & SHRUBS AS INDICATED ON SITE PLAN. THIS SYSTEM SHALL INSURE ADEQUATE IRRIGATION OF ALL PLANT MATERIALS FOR A MINIMUM OF ONE GROWING SEASON.
- IRRIGATION TO BE LOW-FLOW DRIP TYP FOR SHRUBS. LOW-FLOW SPRINKLERS FOR TREES (SEE BUILD-IT-GREEN CHECKLIST ITEM C6a).
- IRRIGATION SYSTEM TO HAVE WEATHER-BASED CONTROLLER. (SEE BUILD-IT-GREEN CHECKLIST ITEM C6b).

GRADING & DRAINAGE



1. SITE RETAINING WALLS TO HAVE FRENCH DRAINS AT BASE TYP - HARD PIPE TO DAYLIGHT AT DISSIPATORS TYPICAL.
2. FOUNDATION TO HAVE FRENCH DRAIN AT BASE TYP - HARD PIPE TO DAYLIGHT AT DISSIPATORS TYPICAL.
3. ROOF DOWNSPOUTS W/ 4" Ø HARD PIPE CONNECTED TO DISSIPATORS TYP.

LANDSCAPE PLAN SCHEDULE

NOTE: DRIP IRRIGATION SYSTEM WILL BE INSTALLED TO PROVIDE WATER FOR TREES & SHRUBS AS INDICATED ON SITE PLAN

- (E) TREE TO BE REMOVED & TREE PERMIT ID.
- (E) TREE TO REMAIN & TREE PERMIT ID. IF APPLICABLE
- (X) NEW TREE
- (A) TREE: PRUNUS KRAUTERS (15 GAL) (FLOWERING PLUM)
- (B) TREE: ACER PALMATUM (15 GAL) (JAPANESE MAPLE)
- (S) NEW SHRUBS (MIXTURE OF THE FOLLOWING)
 - SHRUB: MYRICA CALIFORNIA (PACIFIC WAX MYRTLE)
 - SHRUB: SALVIA LEUCANTHA (MEXICAN BUSH SAGE)
 - SHRUB: PLUMBAGO ROYAL CAPE (ROYAL CAPE)
 - SHRUB: CEANOETHUS JULIA PHELPS (JULIA PHELPS)

DESIGNER'S STATEMENT

THIS PLOT PLAN CORRECTLY REPRESENTS A PLOT PLAN MADE BY ME OR UNDER MY DIRECTION. I HEREBY STATE THAT TO THE BEST OF MY KNOWLEDGE ALL PROVISIONS OF APPLICABLE STATE LAWS AND LOCAL ORDINANCES HAVE BEEN COMPLIED WITH.

I HEREBY FURTHER STATE THAT ALL PROPOSED GRADES, ELEVATIONS, AND CONTOURS DELINEATED UPON THIS PLOT PLAN ARE BASED UPON A SURVEY BY MORAN ENGINEERING, INC. PLS 4961 DATED DECEMBER 2006 THAT WAS INDICATED THEREON BY THE SURVEYOR THEREOF AS BEING BASED UPON CITY OF OAKLAND DATUM.

DESIGNER

John Newton
JOHN NEWTON
DATE: MARCH 12, 2015
TITLE: DESIGNER

VICINITY MAP



SYMBOL LEGEND

- HEIGHT: [Symbol]
- SECTION: [Symbol]
- ELEVATION: [Symbol]
- DETAIL: [Symbol]
- GRID LINE: [Symbol]
- DOOR: [Symbol]
- WINDOW: [Symbol]
- NOTE: [Symbol]

PROJECT INFORMATION

ZONING: RH-4/S-11
APN: 48E-7320-28
SETBACK SLOPE: 21% UPSLOPE
STRUCTURE SLOPE: 18% DOWNSLOPE
LOT SIZE: 8,097 SF
CONSTRUCTION: TYPE 5 UNPROTECTED WOOD FRAME
BUILDING OCCUPANCY: SINGLE FAMILY RESIDENCE R-3; U-1
SPRINKLER: YES
PROPOSED HOUSE: 2,982 SF + 445 SF GARAGE
PROPOSED FOOTPRINT: 1,846 SF
PROPOSED LOT COVERAGE: 22.4%

DESCRIPTION OF WORK

NEW 2,982 SF & 445 SF GARAGE ON VACANT LOT.

CODE COMPLIANCE

- 2013 CALIFORNIA BUILDING CODE (INCORPORATES BY ADOPTION AND REPRINTS THE 2009 INTERNATIONAL BUILDING CODE WITH CALIFORNIA AMENDMENTS. PUBLISHED BY THE INTERNATIONAL CODE COUNCIL, ICC)
- 2013 CALIFORNIA RESIDENTIAL CODE - APPLIES TO ONE AND TWO FAMILY HOUSES AND TOWNHOMES LESS THAN 3 STORIES IN HEIGHT. (INCORPORATES BY ADOPTION AND REPRINTS THE 2009 INTERNATIONAL RESIDENTIAL CODE)
- 2010 CALIFORNIA ENERGY CODE (2013 APPLICABLE ON JULY 1ST 2014) CHECK THE CALIFORNIA ENERGY COMMISSION'S WEBSITE AT HTTP://WWW.EENERGY.CA.GOV FOR A DOWNLOADABLE VERSION (PUBLISHED BY ICC)
- 2013 CALIFORNIA ELECTRICAL CODE (INCORPORATES BY ADOPTION AND REPRINTS THE 2008 NATIONAL ELECTRICAL CODE WITH CALIFORNIA AMENDMENTS. PUBLISHED BY THE NATIONAL FIRE PROTECTION AGENCY, NFPA)
- 2013 CALIFORNIA PLUMBING CODE (INCORPORATES BY ADOPTION AND REPRINTS THE 2009 UNIFORM PLUMBING CODE WITH CALIFORNIA AMENDMENTS. PUBLISHED BY THE INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS, IAPMO)
- 2013 CALIFORNIA MECHANICAL CODE (INCORPORATES BY ADOPTION AND REPRINTS THE 2009 UNIFORM MECHANICAL CODE WITH CALIFORNIA AMENDMENTS. PUBLISHED BY THE INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS, IAPMO)
- 2013 CALIFORNIA FIRE CODE (INCORPORATES BY ADOPTION AND REPRINTS THE 2009 INTERNATIONAL FIRE CODE WITH CALIFORNIA AMENDMENTS. PUBLISHED BY ICC)
- 2013 CALIFORNIA CODE - APPLIES TO CERTAIN NEW BUILDINGS ONLY - ALL NEW RESIDENTIAL BUILDINGS 3 STORIES OR LESS AND ALL NEW NON-RESIDENTIAL BUILDINGS.

SHEET INDEX

- A10 SITE PLAN & PROJECT INFORMATION
- A20 FLOOR PLANS & SECTION
- A30 ELEVATIONS

TOPO SURVEY

John Newton
Design & Development
5666 Telegraph Ave, Ste A
Oakland, CA 94609
(510) 526-7370

NEW RESIDENCE

PROJECT ADDRESS:
Manzanita Drive
Oakland, CA 94611
APN: 48E-7320-28

OWNER:
David Montalbo
448 Blue Ridge Drive
Martinez, CA 94553
(925) 872-5192

SITE PLAN & PROJECT INFO

REVISION

No.	Description	Date
1	DESIGN REV	9/15/15
2	SITE REV	12/18/15
3	DESIGN REV	3/10/16
4	DESIGN REV	4/15/16

PROJECT No.:
DRAWN BY: JMN
CHECKED BY: JMN
DATE: 4/11/16

A1.0

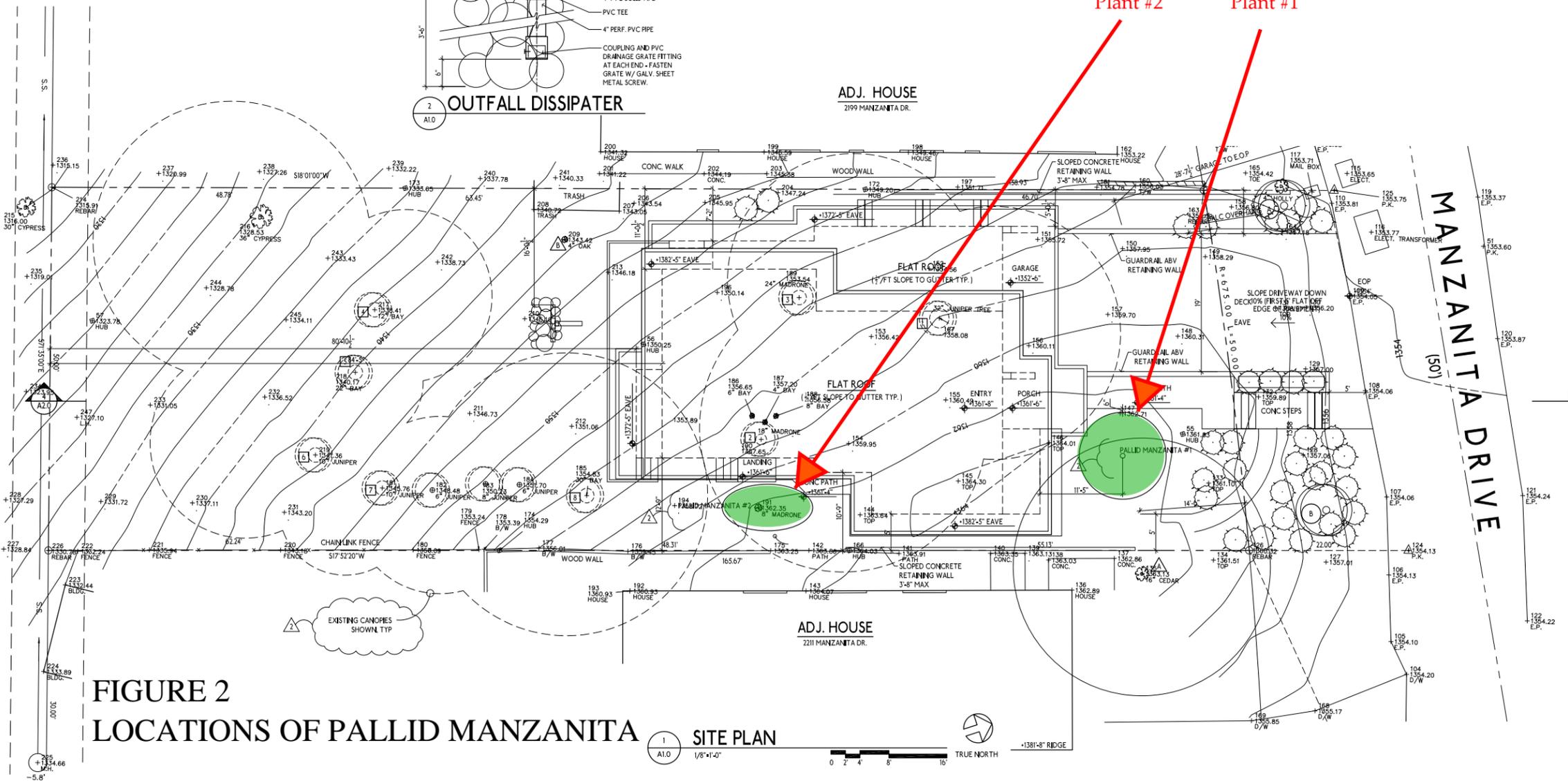


FIGURE 2
LOCATIONS OF PALLID MANZANITA

SITE PLAN
1/8" = 1'-0"



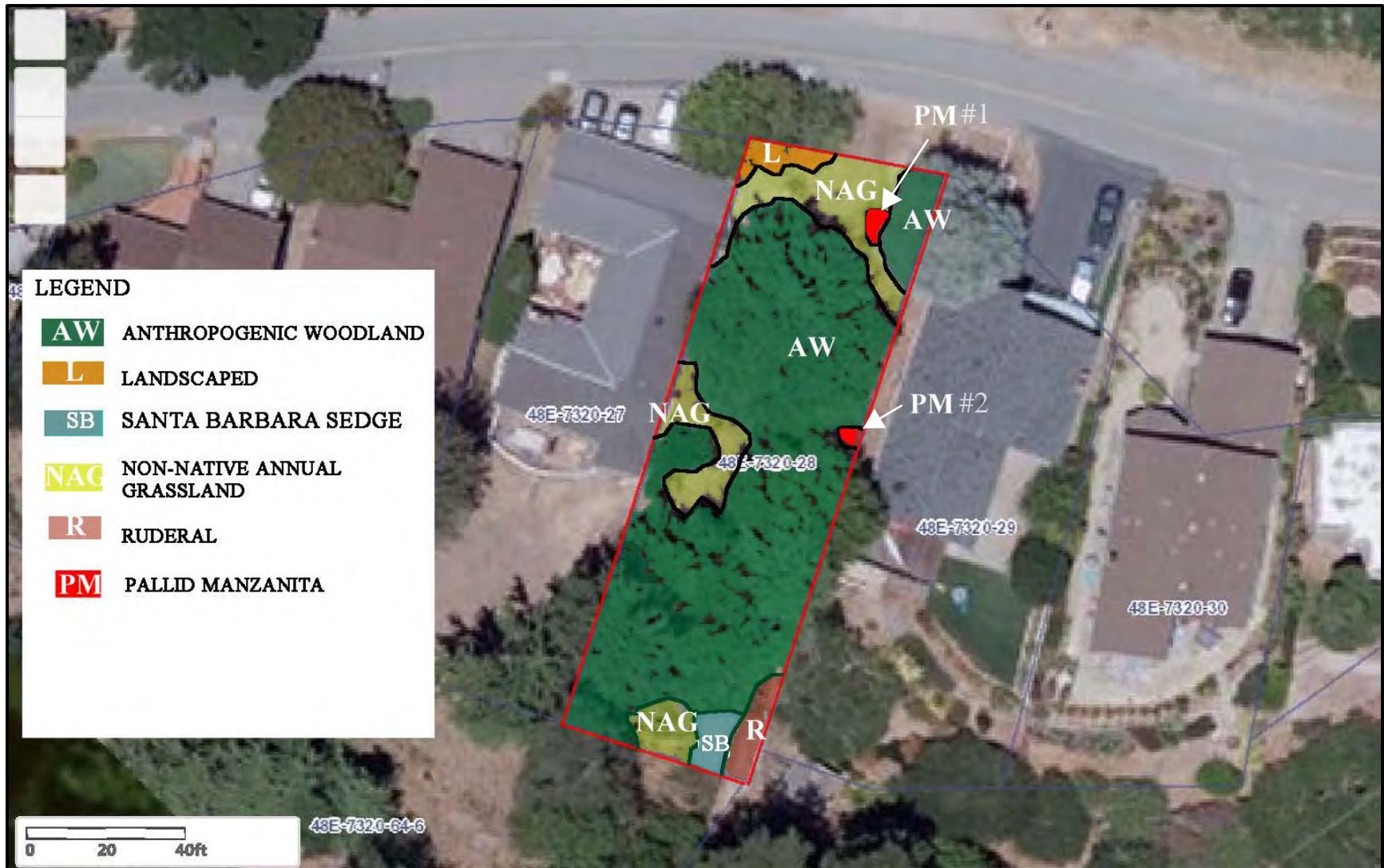


Figure 1. Habitats Occurring Onsite

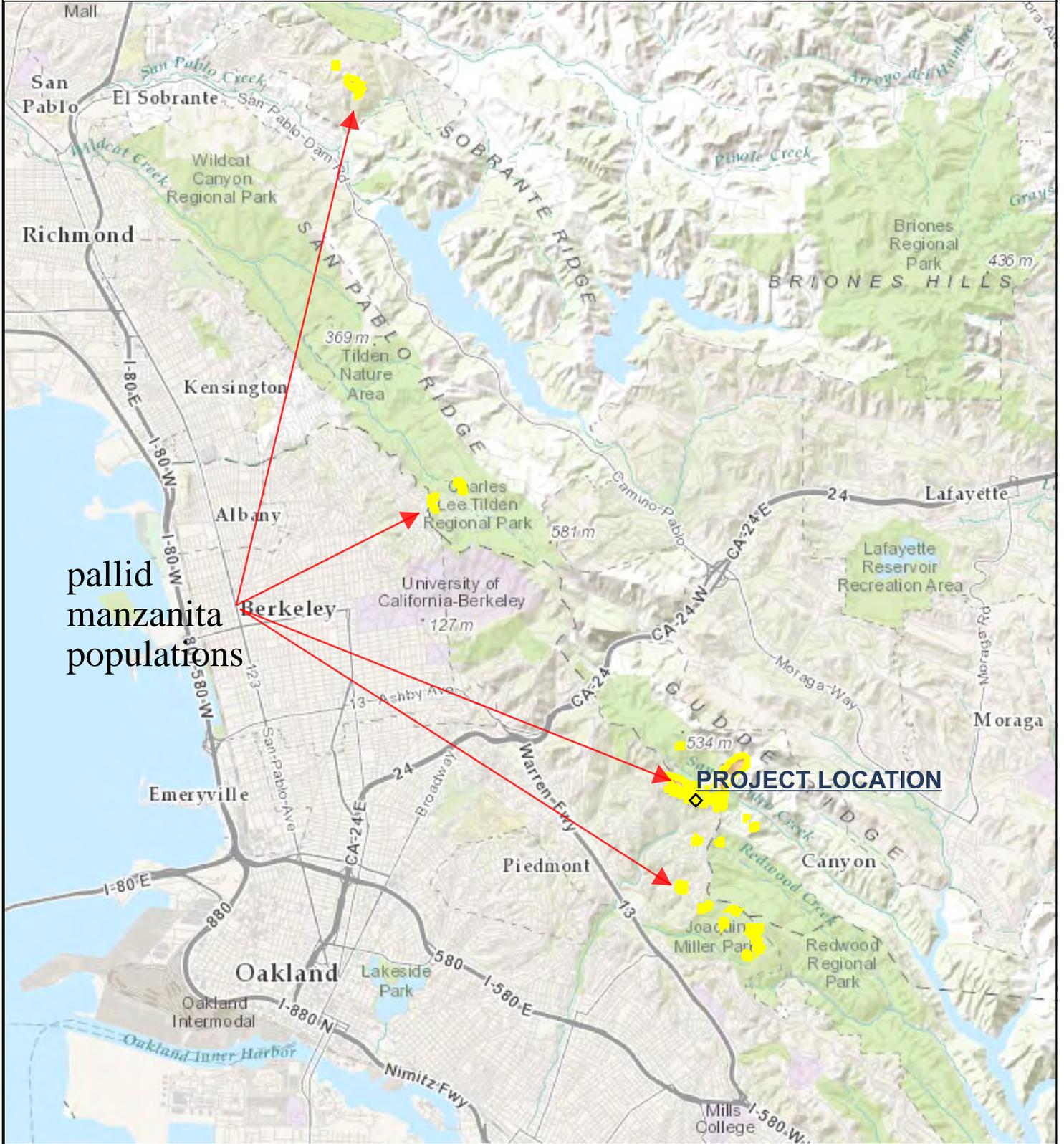


Figure 4. Pallid Manzanita Range Map

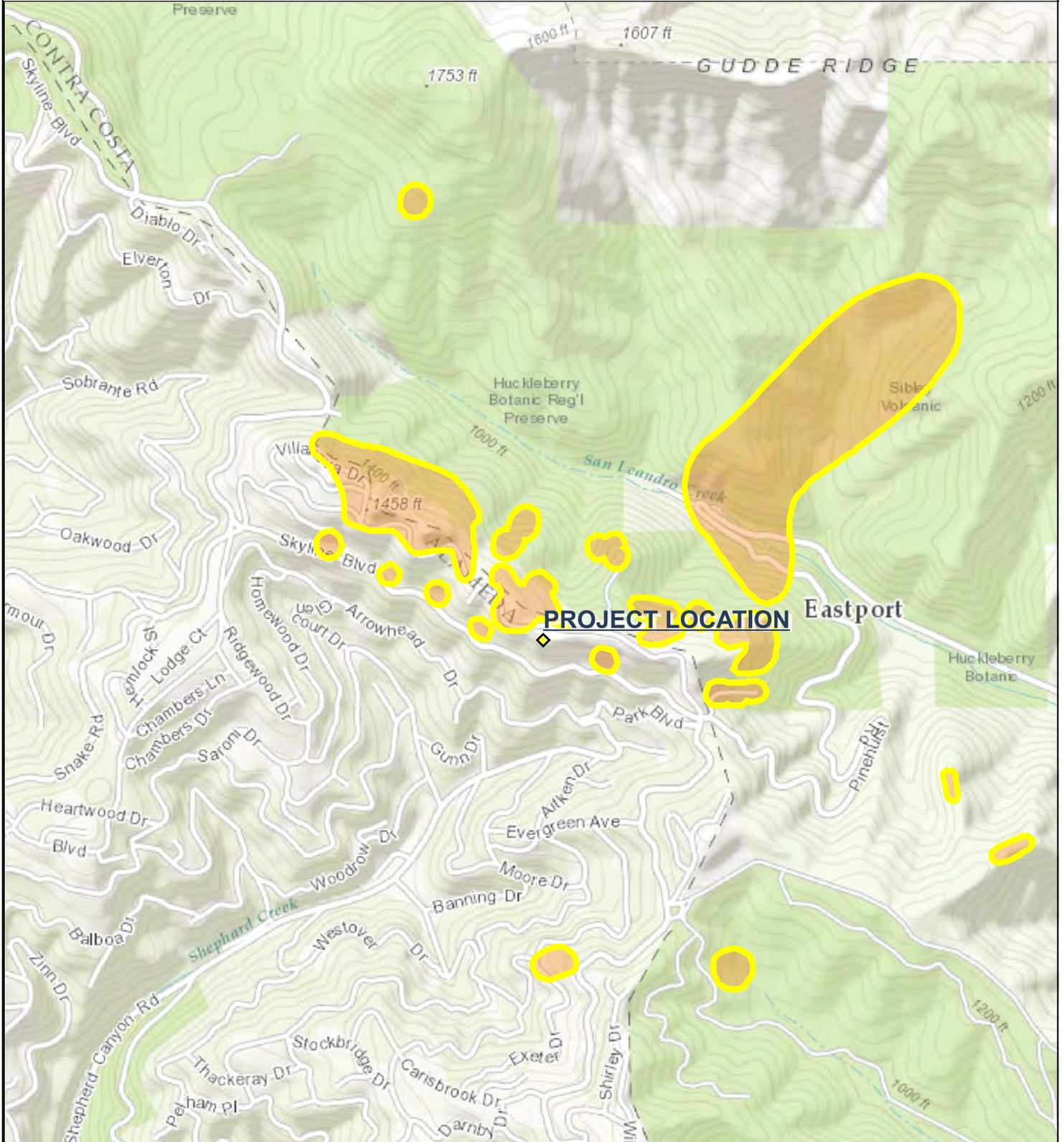


Figure 5. Pallid Manzanita Range Map in the Project Vicinity

0 0.1 0.2mi

Figure 6a - Shading Study

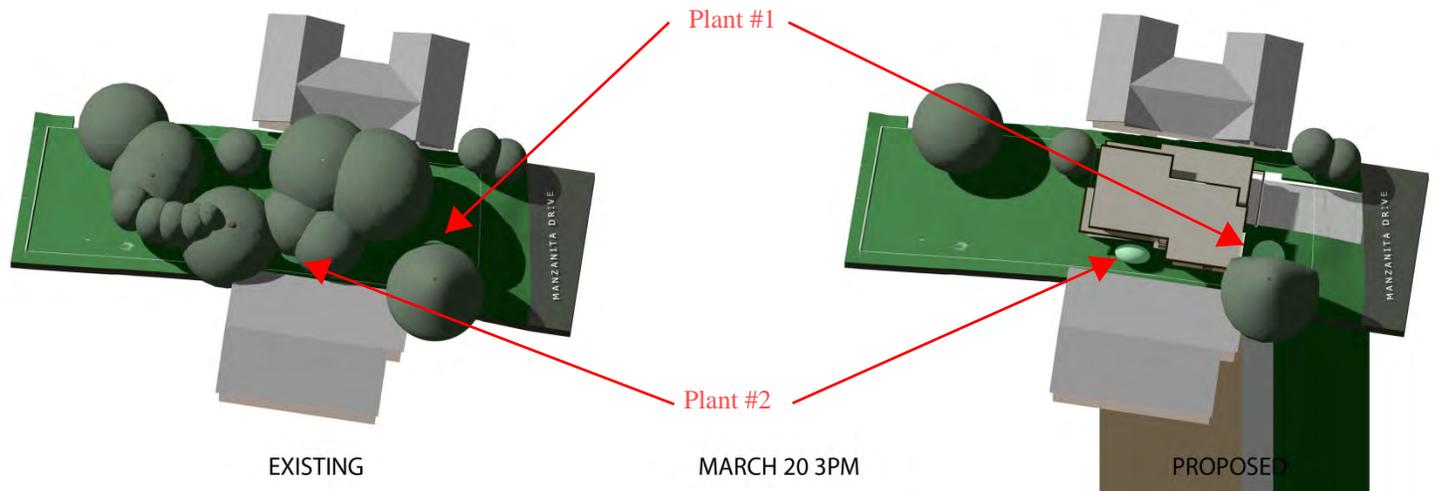
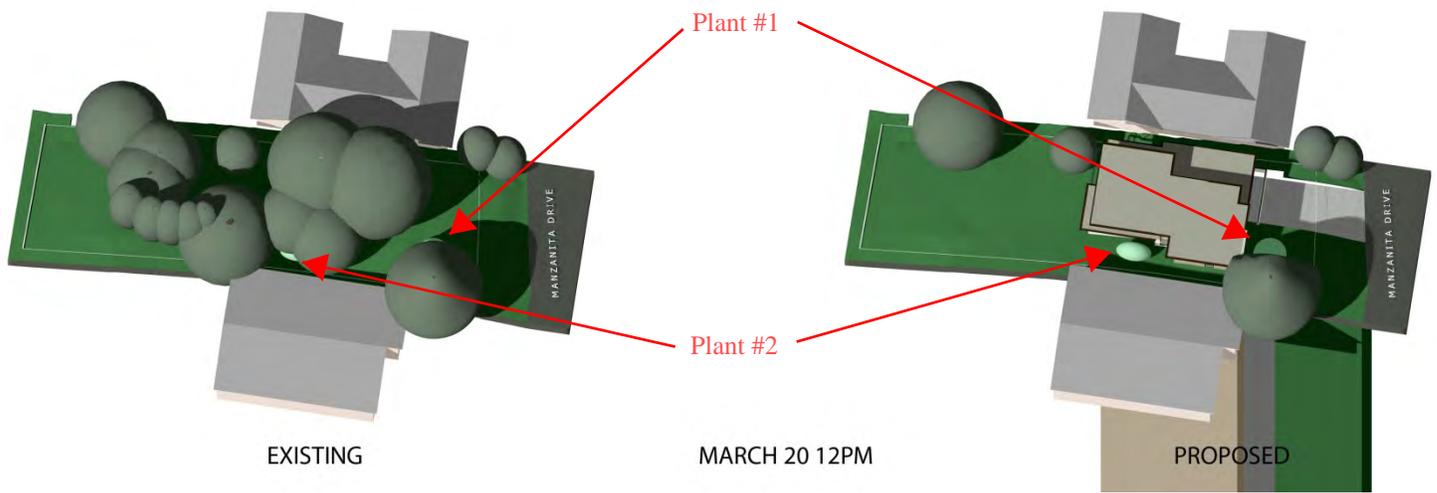
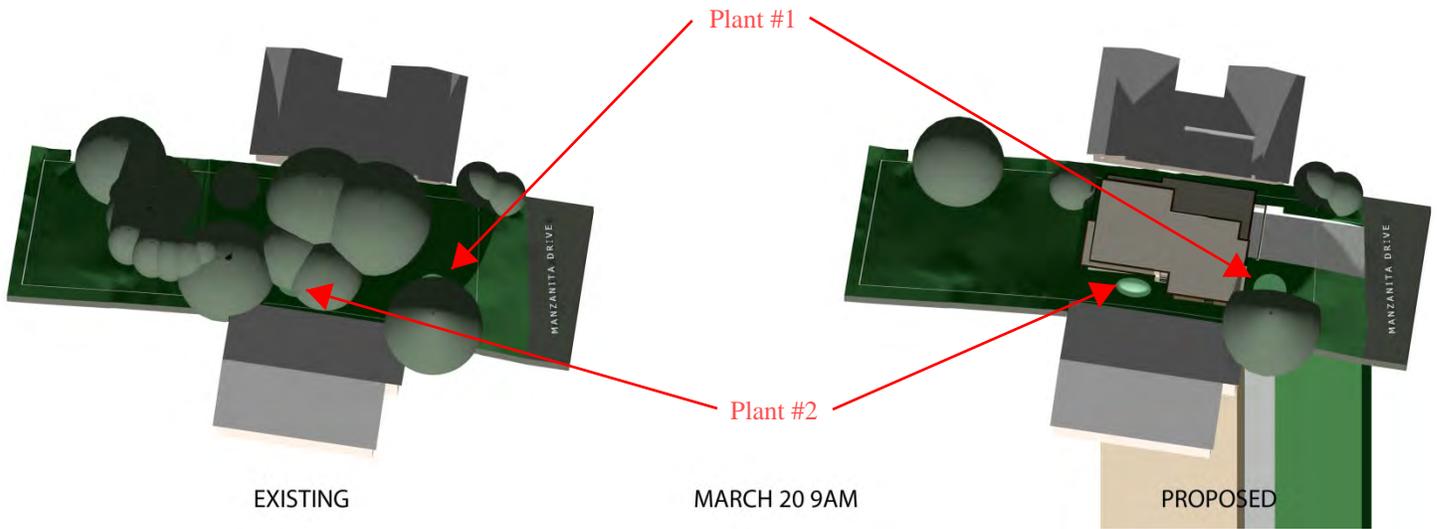
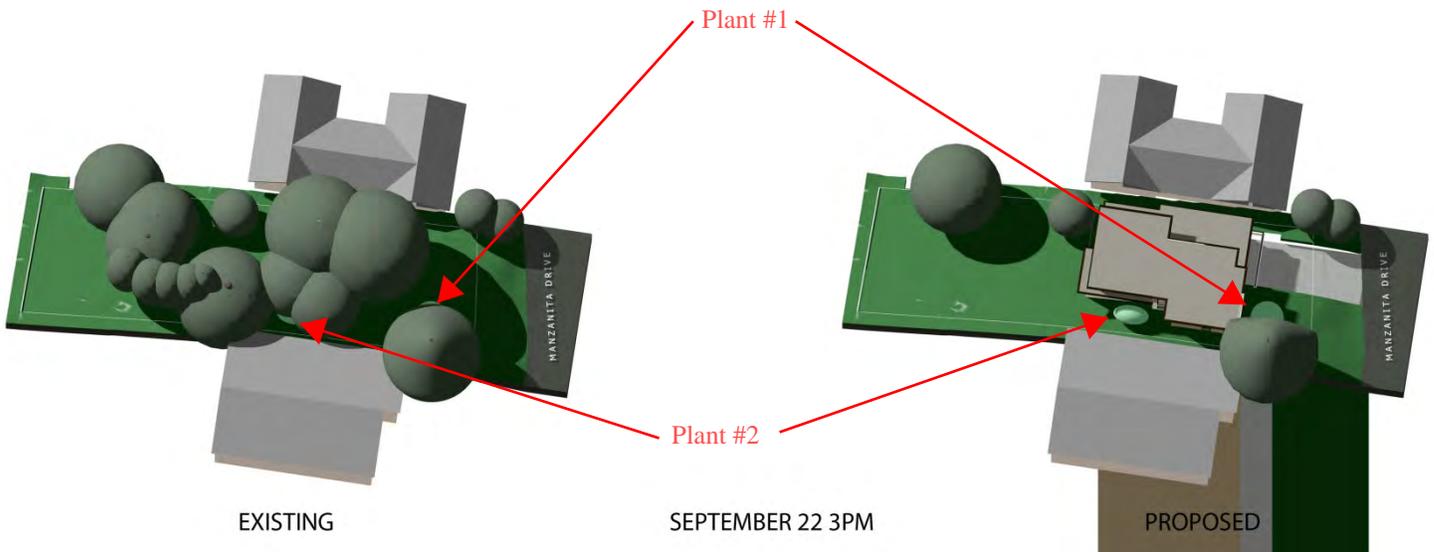
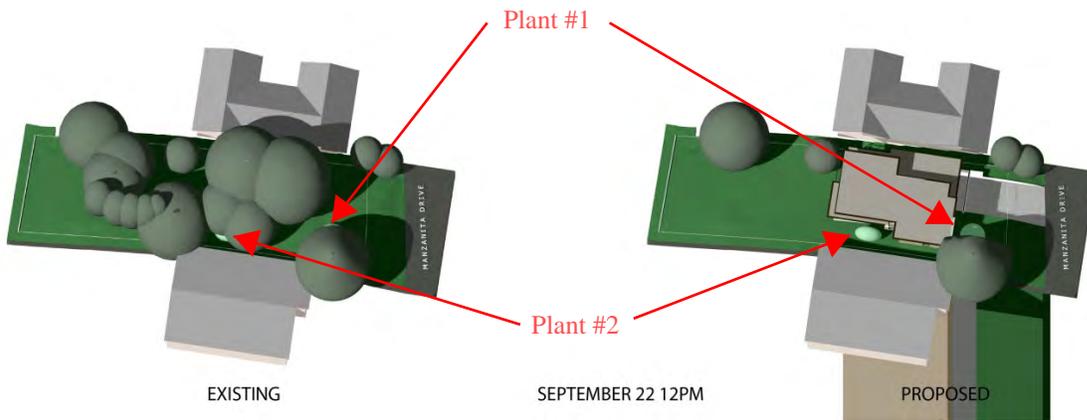
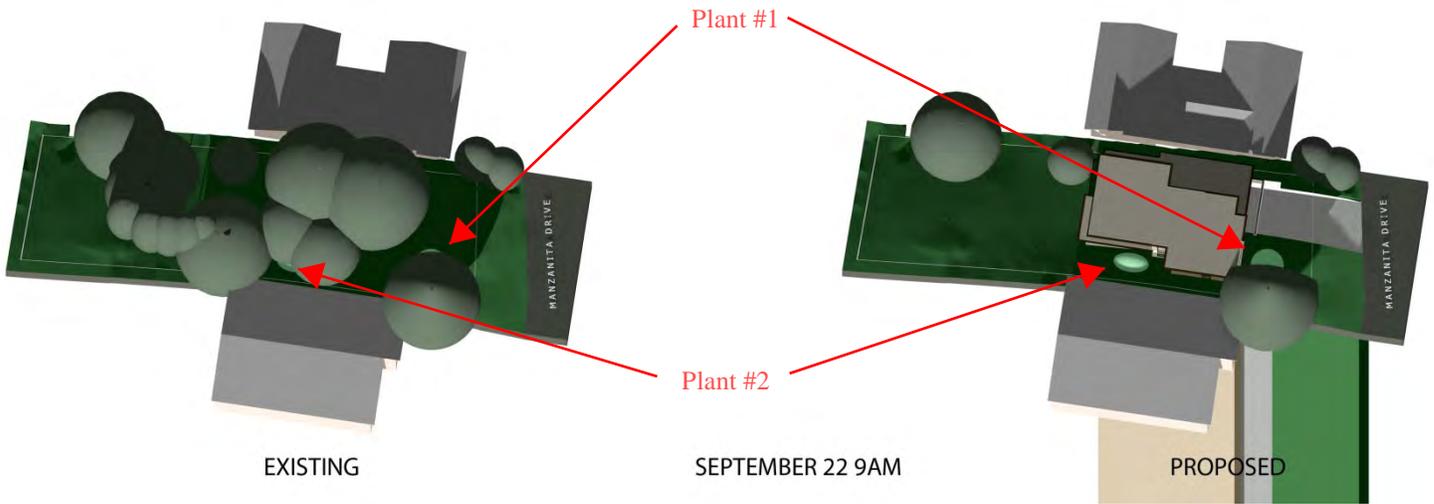


Figure 6, b - Shading Study



GENERAL NOTES

HORIZONTAL AND VERTICAL CURVES EXIST WITHIN 300 FEET OF THE PROPOSED DRIVEWAY.
 PROTECTED TREES EXIST ON THIS SITE.
 UTILITY LOCATIONS ARE BASED UPON SURFACE STRUCTURES AND PAINTED MARKINGS. VERIFY UNDERGROUND UTILITIES.

DRAFT
BOUNDARY AND TOPOGRAPHIC SURVEY

LOT 1223
 FORESTLAND HEIGHTS (10 M 81)
 LOCATED ON MANZANITA DRIVE
 CITY OF OAKLAND, COUNTY OF ALAMEDA, CALIFORNIA

DECEMBER 2006

SCALE: 1" = 8'

MORAN ENGINEERING, INC.

CIVIL ENGINEERS \ LAND SURVEYORS
 1930 SHATTUCK AVENUE, SUITE A
 BERKELEY, CALIFORNIA 94704
 (510) 848-1930

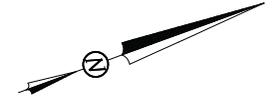
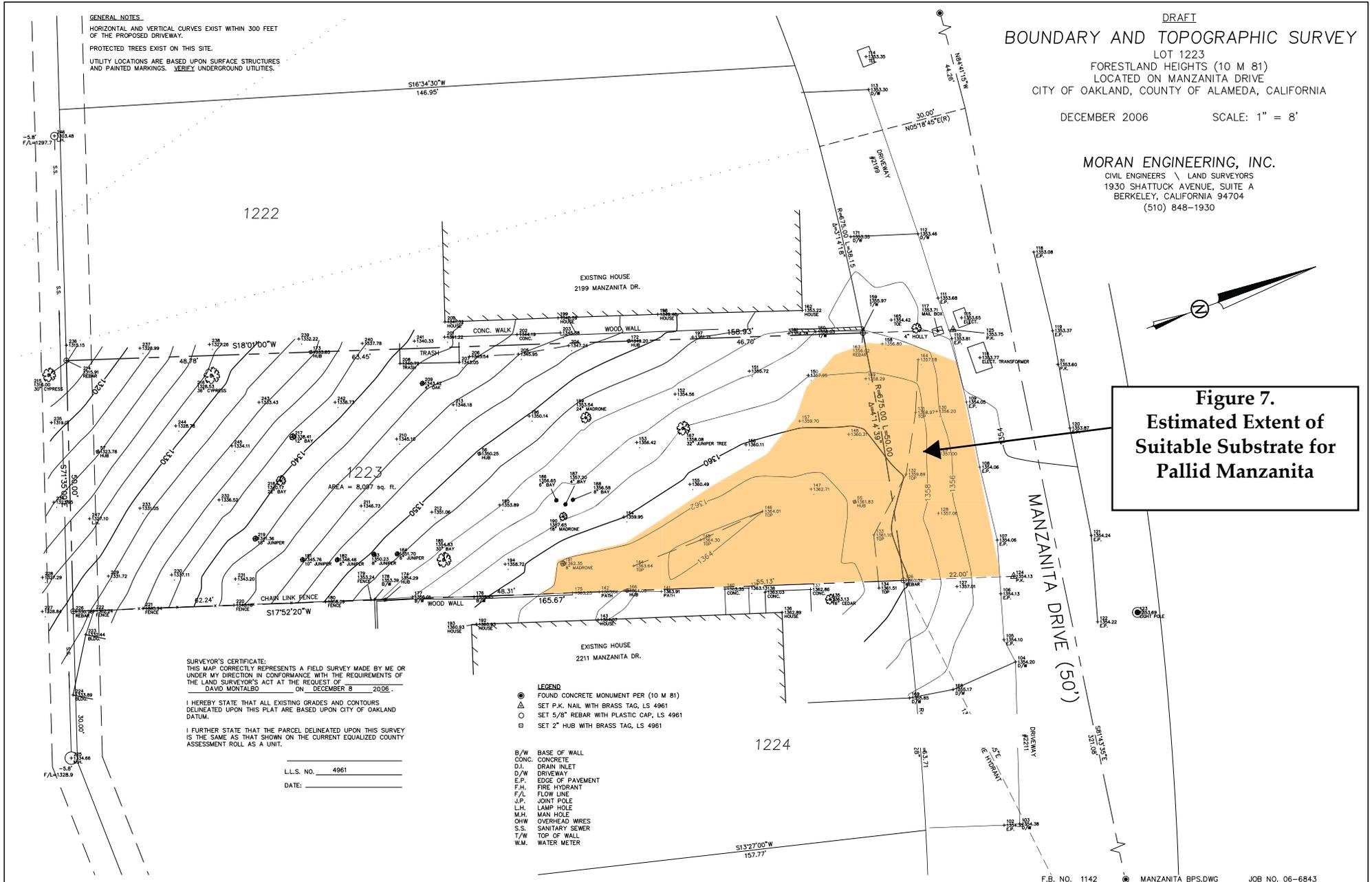


Figure 7.
Estimated Extent of
Suitable Substrate for
Pallid Manzanita



SURVEYOR'S CERTIFICATE:
 THIS MAP CORRECTLY REPRESENTS A FIELD SURVEY MADE BY ME OR UNDER MY DIRECTION IN CONFORMANCE WITH THE REQUIREMENTS OF THE LAND SURVEYOR'S ACT AT THE REQUEST OF DAVID MONTALBO ON DECEMBER 8 2006.

I HEREBY STATE THAT ALL EXISTING GRADES AND CONTOURS DELINEATED UPON THIS PLAT ARE BASED UPON CITY OF OAKLAND DATUM.

I FURTHER STATE THAT THE PARCEL DELINEATED UPON THIS SURVEY IS THE SAME AS THAT SHOWN ON THE CURRENT EQUALIZED COUNTY ASSESSMENT ROLL AS A UNIT.

L.L.S. NO. 4961
 DATE: _____

- LEGEND**
- FOUND CONCRETE MONUMENT PER (10 M 81)
 - ▲ SET P.K. NAIL WITH BRASS TAG, LS 4961
 - SET 5/8" REBAR WITH PLASTIC CAP, LS 4961
 - SET 2" HUB WITH BRASS TAG, LS 4961

- B/W BASE OF WALL
- CONC. CONCRETE
- D.I. DRAIN INLET
- D/W DRIVEWAY
- E.P. EDGE OF PAVEMENT
- F.H. FIRE HYDRANT
- F/L FLOW LINE
- J.P. JOINT POLE
- L.H. LAMP HOLE
- M.H. MAN HOLE
- OHW OVERHEAD WIRES
- S.S. SANITARY SEWER
- T/W TOP OF WALL
- W.M. WATER METER

GENERAL NOTES

HORIZONTAL AND VERTICAL CURVES EXIST WITHIN 300 FEET OF THE PROPOSED DRIVEWAY.

PROTECTED TREES EXIST ON THIS SITE.

UTILITY LOCATIONS ARE BASED UPON SURFACE STRUCTURES AND PAINTED MARKINGS. VERIFY UNDERGROUND UTILITIES.

DRAFT
BOUNDARY AND TOPOGRAPHIC SURVEY

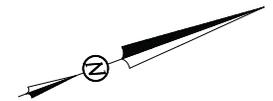
LOT 1223
FORESTLAND HEIGHTS (10 M 81)
LOCATED ON MANZANITA DRIVE
CITY OF OAKLAND, COUNTY OF ALAMEDA, CALIFORNIA

DECEMBER 2006

SCALE: 1" = 8'

MORAN ENGINEERING, INC.

CIVIL ENGINEERS \ LAND SURVEYORS
1930 SHATTUCK AVENUE, SUITE A
BERKELEY, CALIFORNIA 94704
(510) 848-1930

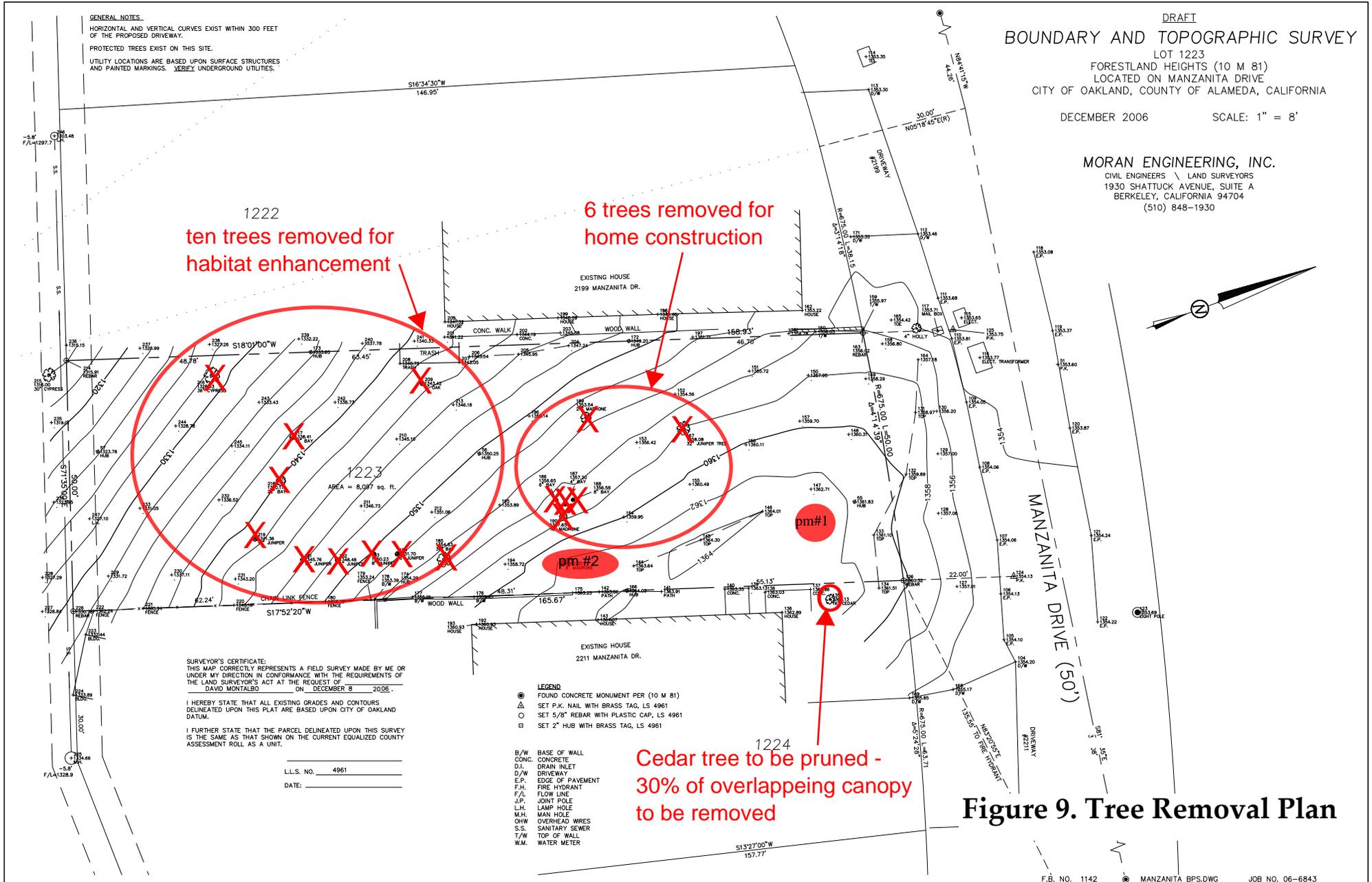


ten trees removed for habitat enhancement

6 trees removed for home construction

Cedar tree to be pruned - 30% of overlapping canopy to be removed

Figure 9. Tree Removal Plan



SURVEYOR'S CERTIFICATE:
THIS MAP CORRECTLY REPRESENTS A FIELD SURVEY MADE BY ME OR UNDER MY DIRECTION IN CONFORMANCE WITH THE REQUIREMENTS OF THE LAND SURVEYOR'S ACT AT THE REQUEST OF DAVID MONTALBO ON DECEMBER 8 2006.

I HEREBY STATE THAT ALL EXISTING GRADES AND CONTOURS DELINEATED UPON THIS PLAT ARE BASED UPON CITY OF OAKLAND DATUM.

I FURTHER STATE THAT THE PARCEL DELINEATED UPON THIS SURVEY IS THE SAME AS THAT SHOWN ON THE CURRENT EQUALIZED COUNTY ASSESSMENT ROLL AS A UNIT.

L.L.S. NO. 4961
DATE: _____

- LEGEND**
- FOUND CONCRETE MONUMENT PER (10 M 81)
 - ▲ SET P.K. NAIL WITH BRASS TAG, LS 4961
 - SET 5/8" REBAR WITH PLASTIC CAP, LS 4961
 - SET 2" HUB WITH BRASS TAG, LS 4961

- B/W BASE OF WALL
- CONC. CONCRETE
- D.I. DRAIN INLET
- D/W DRIVEWAY
- E.P. EDGE OF PAVEMENT
- F.H. FIRE HYDRANT
- F/L FLOW LINE
- J.P. JOINT POLE
- L.H. LAMP HOLE
- M.H. MAN HOLE
- OHW OVERHEAD WIRES
- S.S. SANITARY SEWER
- T/W TOP OF WALL
- W.M. WATER METER

ATTACHMENT A – SITE PHOTOGRAPHS

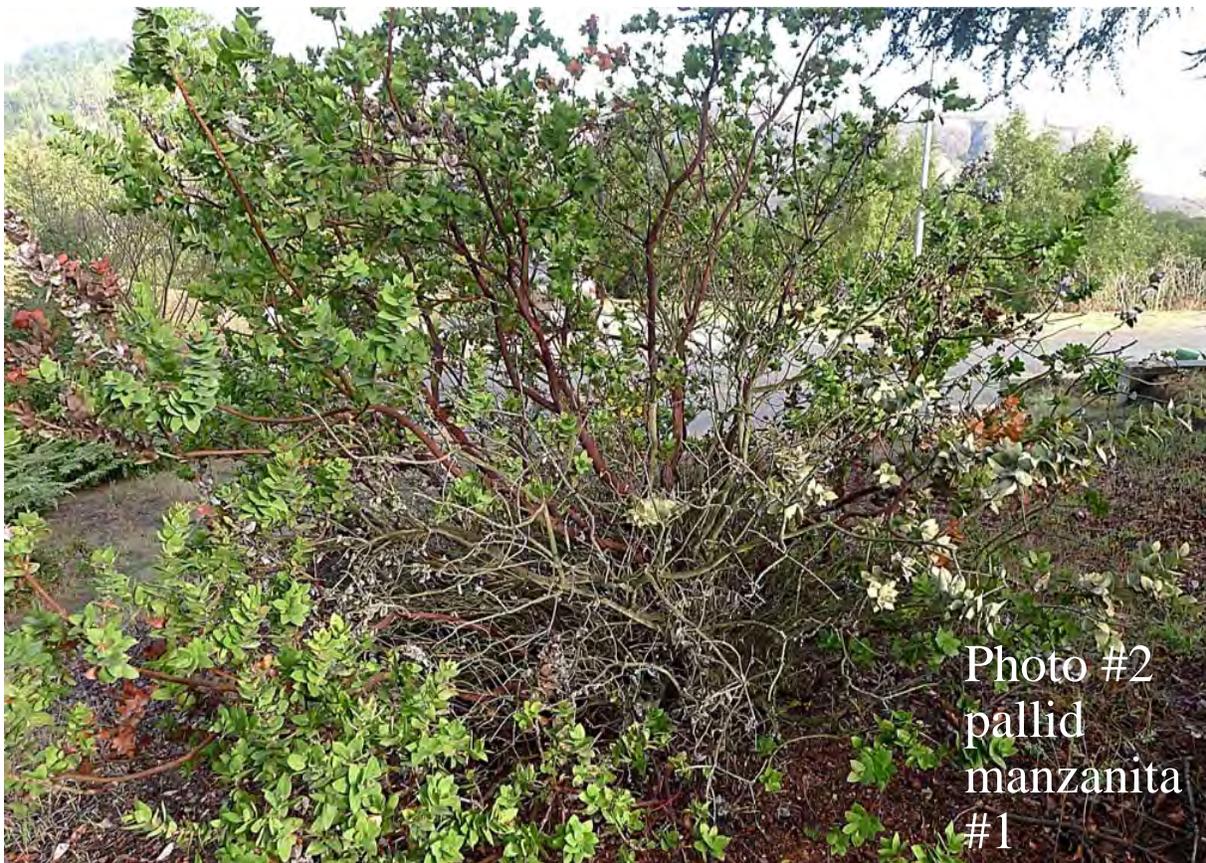




Photo #3
view of nascent inflorescence



Photo #4
pallid manzanita
#1





Photo #7
pallid manzanita #2



Photo #8
pallid manzanita #2



Photo #9
street view, looking west



Photo #10
street view, looking east



Special-status Plant Species Evaluated For The Subject Parcel

Jan 14, 2016

FAMILY

Scientific Name Common Name	Status	Habitat Affinities And Reported Distribution	Blooming Time Life Form	Potential For Occurrence On Site
Adoxaceae - Muskroot Family				
<i>Viburnum ellipticum</i> oval-leaved viburnum	Federal: none State: none CNPS: 1A CNDDB: G4G5/S3? Other: DFG: SP	Occurs in chaparral, cismontane woodland, lower montane coniferous forest. Recorded from Contra Costa, El Dorado, Fresno, Glenn, Humboldt, Mendocino, Napa, Shasta, Sonoma, Tehama. Also recorded from Oregon, Washington.	May-Jun Shrub (deciduous)	None: marginally suitable habitat present. Would have been detectable during present survey.
Apiaceae - Carrot Family				
<i>Cicuta maculata</i> var. <i>bolanderi</i> Bolander's water hemlock	Federal: none State: none CNPS: 2B.1 CNDDB: G5T4/S2 Other:	Occurs in marshes and swamps. Moisture: freshwater or brackish. Recorded from Contra Costa, Los Angeles, Marin, Sacramento, San Luis Obispo, Santa Barbara, Solano.	Jul-Sep Perennial Herb	None: no suitable habitat present.
<i>Sanicula maritima</i> adobe sanicle	Federal: none State: SR CNPS: 1B.1 CNDDB: G2/S2 Other: DFG: SP	Occurs in chaparral, coastal prairie, meadows, seeps, valley and foothill grassland Substrate: clay, serpentinite. Recorded from Alameda, Monterey, San Francisco, San Luis Obispo. Additional distribution: presumed extirpated in Alameda and San Francisco counties.	Feb-May Perennial Herb	None: no suitable habitat present.
Asteraceae - Sunflower Family				
<i>Balsamorhiza macrolepis</i> big-scale balsamroot	Federal: none State: none CNPS: 1B.2 CNDDB: G2/S2 Other: DFG: SP	Occurs in cismontane woodland, chaparral, valley and foothill grassland Substrate: sometimes serpentinite. Recorded from Alameda, Butte, Colusa, El Dorado, Lake, Mariposa, Napa, Placer, Santa Clara, Solano, Sonoma, Tehama, Tuolumne.	Mar-Jun Perennial Herb	Not expected: marginally suitable habitat present. Would have been detectable during present survey.



Special-status Plant Species Evaluated For The Subject Parcel

Jan 14, 2016

FAMILY

Scientific Name Common Name	Status	Habitat Affinities And Reported Distribution	Blooming Time Life Form	Potential For Occurrence On Site
<i>Blepharizonia plumosa</i> big tarplant	Federal: none State: none CNPS: 1B.1 CNDDB: G2/S2 Other: DFG: SP	Occurs in valley and foothill grassland. Recorded from Alameda, Contra Costa, San Joaquin, Stanislaus. Additional distribution: presumed extirpated in Solano County.	Jul-Oct Annual Herb	None: no suitable habitat present.
<i>Centromadia parryi</i> ssp. <i>congdonii</i> Congdon's tarplant	Federal: none State: none CNPS: 1B.1 CNDDB: G3T2/S2 Other: DFG: SP	Occurs in valley and foothill grassland. Substrate: alkaline. Recorded from Alameda, Contra Costa, Monterey, San Luis Obispo, San Mateo, Santa Clara, Santa Cruz, Solano. Additional distribution: presumed extirpated in Santa Cruz and Solano counties.	May-Nov Annual Herb	None: no suitable habitat present.
<i>Cirsium andrewsii</i> Franciscan thistle	Federal: none State: none CNPS: 1B.2 CNDDB: G3/S3 Other: DFG: SP	Occurs in broadleaved upland forest, coastal bluff scrub, coastal prairie, coastal scrub Moisture: mesic, Substrate: sometimes serpentinite, Recorded from Contra Costa, Marin, San Francisco, San Mateo, Sonoma.	Mar-Jul Perennial Herb	None: no suitable habitat present. Would have been detectable during present survey.
<i>Helianthella castanea</i> Diablo helianthella	Federal: none State: none CNPS: 1B.2 CNDDB: G2/S2 Other: DFG: SP	Occurs in broadleaved upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland. Recorded from Alameda, Contra Costa, Marin, San Mateo, San Francisco. Additional distribution: presumed extirpated in Marin and San Francisco counties.	Mar-Jun Perennial Herb	None: marginally suitable habitat present. Would have been detectable during present survey.
<i>Hemizonia congesta</i> ssp. <i>congesta</i> white seaside tarplant	Federal: none State: none CNPS: 1B.2 CNDDB: G5T1T2/S1S2 Other:	Occurs in valley and foothill grassland. Habitats Note: sometimes roadsides. Recorded from Marin, Mendocino, San Francisco, San Mateo, Sonoma.	Apr-Nov Annual Herb	Not expected: marginally suitable habitat present. No unidentified tarweeds detected.



Special-status Plant Species Evaluated For The Subject Parcel

Jan 14, 2016

FAMILY

Scientific Name Common Name	Status	Habitat Affinities And Reported Distribution	Blooming Time Life Form	Potential For Occurrence On Site
<i>Holocarpha macradenia</i> Santa Cruz tarplant	Federal: FT State: SE CNPS: 1B.1 CNDDDB: G1/S1 Other: DFG: SP	Occurs in coastal prairie, coastal scrub, valley and foothill grassland. Substrate: often clay, sandy. Recorded from Alameda, Contra Costa, Marin, Monterey, Santa Cruz, Solano. Additional distribution: presumed extirpated in Alameda, Contra Costa, and Marin counties.	Jun-Oct Annual Herb	None: no suitable habitat present.
<i>Isocoma arguta</i> Carquinez goldenbush	Federal: none State: none CNPS: 1B.1 CNDDDB: G1/S1 Other: DFG: SP	Occurs in valley and foothill grassland Substrate: alkaline, Habitats Note: alkaline. Recorded from Contra Costa, Solano.	Aug-Dec Shrub	None: no suitable habitat present. Would have been detectable during present survey.
<i>Lasthenia conjugens</i> Contra Costa goldfields	Federal: FE State: none CNPS: 1B.1 CNDDDB: G1/S1 Other: DFG: SP	Occurs in cismontane woodland, playas (alkaline), valley and foothill grassland, vernal pools Moisture: mesic. Recorded from Alameda, Contra Costa, Marin, Mendocino, Monterey, Napa, Santa Barbara, Santa Clara, Solano, Sonoma. Additional distribution: presumed extirpated in Mendocino, Santa Barbara and Santa Clara counties.	Mar-Jun Annual Herb	None: no suitable habitat present.
<i>Layia carnosa</i> beach layia	Federal: FE State: SE CNPS: 1B.1 CNDDDB: G2/S2 Other: DFG: SP	Occurs in coastal dunes, coastal scrub. Substrate: sandy. Recorded from Humboldt, Marin, Monterey, San Francisco, Santa Barbara; presumed extirpated in Santa Barbara and San Francisco counties.	Mar-Jul Annual Herb	None: no suitable habitat present.
<i>Micropus amphibolus</i> Mt. Diablo cottonweed	Federal: none State: none CNPS: 3.2 CNDDDB: G3G4/S3S4 Other: DFG: SP	Occurs in broadleafed upland forest, chaparral, cismontane woodland, valley and foothill grassland Substrate: rocky. Recorded from Alameda, Colusa, Contra Costa, Lake, Marin, Monterey, Napa, San Joaquin, San Luis Obispo, Santa Barbara, Santa Clara, Santa Cruz, Solano, Sonoma.	Mar-May Annual Herb	Not expected: marginally suitable habitat present.



Special-status Plant Species Evaluated For The Subject Parcel

Jan 14, 2016

FAMILY

Scientific Name Common Name	Status	Habitat Affinities And Reported Distribution	Blooming Time Life Form	Potential For Occurrence On Site
<i>Monolopia gracilens</i> woodland woollythreads	Federal: none State: none CNPS: 1B.2 CNDDB: G3/S3 Other:	Occurs in broadleaved upland forest (openings), chaparral (openings), cismontane woodland, North Coast coniferous forest (openings), valley and foothill grassland. Substrate: serpentinite. Recorded from Alameda, Contra Costa, Monterey, San Luis Obispo, San Mateo, Santa Clara, Santa Cruz.	Feb-Jul Annual Herb	None: no suitable habitat present.
Boraginaceae - Borage Family				
<i>Amsinckia lunaris</i> bent-flowered fiddleneck	Federal: none State: none CNPS: 1B.2 CNDDB: G2?/S2? Other: DFG: SP	Occurs in coastal bluff scrub, cismontane woodland, valley and foothill grassland. Recorded from Alameda, Colusa, Contra Costa, Lake, Marin, Napa, San Benito, San Mateo, Santa Clara, Santa Cruz, Sonoma, Yolo.	Mar-Jun Annual Herb	None: no suitable habitat present.
<i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i> Choris's popcorn-flower	Federal: none State: none CNPS: 1B.2 CNDDB: G3T2Q/S2 Other: DFG: SP	Occurs in chaparral, coastal prairie, coastal scrub, northern coastal scrub Moisture: moist. Recorded from Alameda, San Francisco, San Mateo, Santa Cruz.	Mar-Jun Annual Herb	None: no suitable habitat present.
<i>Plagiobothrys diffusus</i> San Francisco popcorn-flower	Federal: none State: SE CNPS: 1B.1 CNDDB: G1Q/S1 Other: DFG: SP	Occurs in coastal prairie, valley and foothill grassland. Recorded from Alameda, San Francisco, San Mateo, Santa Cruz. Additional distribution: presumed extirpated in San Francisco County.	Mar-Jun Annual Herb	None: no suitable habitat present.
<i>Plagiobothrys glaber</i> hairless popcorn-flower	Federal: none State: none CNPS: 1A CNDDB: GH/SH Other: DFG: SP	Occurs in meadows, seeps (alkaline), marshes and swamps (coastal salt). Substrate: alkaline. Recorded from Alameda, Marin, San Benito, Santa Clara. Additional distribution: presumed extinct.	Mar-May Annual Herb	None: no suitable habitat present.



Special-status Plant Species Evaluated For The Subject Parcel

Jan 14, 2016

FAMILY

Scientific Name Common Name	Status	Habitat Affinities And Reported Distribution	Blooming Time Life Form	Potential For Occurrence On Site
Brassicaceae - Mustard Family				
<i>Streptanthus albidus</i> ssp. <i>peramoenus</i> most beautiful jewel-flower	Federal: none State: none CNPS: 1B.2 CNDDB: G2T2/S2 Other: DFG: SP	Occurs in chaparral, cismontane woodland, valley and foothill grassland. Substrate: serpentinite. Recorded from Alameda, Contra Costa, Monterey, Santa Clara, San Luis Obispo.	Mar-Oct Annual Herb	None: no suitable habitat present.
Bryaceae				
<i>Anomobryum julaceum</i> slender silver-moss	Federal: none State: none CNPS: 4.2 CNDDB: G4G5/S2 Other: DFG: SP	Occurs in broadleaved upland forest, lower montane coniferous forest, North Coast coniferous forest. Moisture: damp soil and rock on outcrops, Habitats Note: usually on roadcuts. Recorded from Butte, Contra Costa, Humboldt, Los Angeles, Mariposa, Santa Barbara, Santa Cruz, Shasta, Sonoma. Also recorded from Oregon.	n/a Moss	None: no suitable habitat present.
Chenopodiaceae - Goosefoot Family				
<i>Extriplex joaquiniana</i> San Joaquin sparscale	Federal: none State: none CNPS: 1B.2 CNDDB: G2/S2 Other: DFG: SP	Occurs in chenopod scrub, meadows, playas, seeps, valley and foothill grassland Substrate: alkaline. Recorded from Alameda, Colusa, Contra Costa, Fresno, Glenn, Merced, Monterey, Napa, San Benito, San Joaquin, San Luis Obispo, Santa Clara, Solano, Tulare, Yolo. Additional distribution: presumed extirpated in Santa Clara, San Joaquin, and Tulare counties; questionable in San Luis Obispo County.	Apr-Oct Annual Herb	None: no suitable habitat present.
<i>Suaeda californica</i> California seablite	Federal: FE State: none CNPS: 1B.1 CNDDB: G1/S1 Other: DFG: SP	Occurs in marshes and swamps (coastal salt). Recorded from Alameda, Contra Costa, San Francisco, San Luis Obispo, Santa Clara. Additional distribution: presumed extirpated in Alameda, Contra Costa and Santa Clara counties - reintroduced to San Francisco County.	Jul-Oct Shrub (evergreen)	None: no suitable habitat present.



Special-status Plant Species Evaluated For The Subject Parcel

Jan 14, 2016

FAMILY

Scientific Name Common Name	Status	Habitat Affinities And Reported Distribution	Blooming Time Life Form	Potential For Occurrence On Site
Convolvulaceae - Morning-glory Family				
<i>Calystegia purpurata</i> ssp. <i>saxicola</i> coastal bluff morning-glory	Federal: none State: none CNPS: 1B.2 CNDDDB: G4T2T3/S2S3 Other: DFG: SP	Occurs in coastal dunes, coastal scrub. Recorded from Contra Costa, Lake, Marin, Mendocino, Sonoma.	May-Aug Perennial Herb	None: no suitable habitat present.
Cyperaceae - Sedge Family				
<i>Carex comosa</i> bristly sedge	Federal: none State: none CNPS: 2B.1 CNDDDB: G5/S2 Other: DFG: SP	Occurs in coastal prairie, freshwater marsh, marshes and swamps, valley and foothill grassland. Recorded from Contra Costa, Lake, Mendocino, San Bernardino, San Francisco, San Joaquin, Santa Cruz, Shasta, Sonoma. Also recorded from Idaho, Oregon, Washington.	May-Sep Perennial Herb (rhizomatous)	None: no suitable habitat present.
Ericaceae - Heath Family				
<i>Arctostaphylos pallida</i> pallid manzanita	Federal: FT State: SE CNPS: 1B.1 CNDDDB: G1/S1 Other: DFG: SP	Occurs in broadleaved upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, coastal scrub Substrate: siliceous shale, sandy, or gravelly. Recorded from Alameda, Contra Costa.	Dec-Mar Shrub (evergreen)	Detected: marginally suitable habitat present. See report for discussion.
Fabaceae - Legume Family				
<i>Astragalus tener</i> var. <i>tener</i> alkali milk-vetch	Federal: none State: none CNPS: 1B.2 CNDDDB: G2T2/S2 Other: DFG: SP	Occurs in playas, valley and foothill grassland (adobe clay), vernal pools Substrate: adobe clay, alkaline. Recorded from Alameda, Contra Costa, Merced, Monterey, Napa, San Benito, San Francisco, San Joaquin, Santa Clara, Solano, Sonoma, Stanislaus, Yolo. Additional distribution: presumed extirpated in Contra Costa, Monterey, San Benito, Santa Clara, San Francisco, San Joaquin, Sonoma, and Stanislaus counties.	Mar-Jun Annual Herb	None: no suitable habitat present.



Special-status Plant Species Evaluated For The Subject Parcel

Jan 14, 2016

FAMILY

Scientific Name Common Name	Status	Habitat Affinities And Reported Distribution	Blooming Time Life Form	Potential For Occurrence On Site
<i>Hoita strobilina</i> Loma Prieta hoita	Federal: none State: none CNPS: 1B.1 CNDDDB: G2/S2 Other: DFG: SP	Occurs in chaparral, cismontane woodland, riparian woodland Moisture: mesic, Substrate: usually serpentinite, Recorded from Contra Costa, Santa Clara, Santa Cruz, Alameda. Additional distribution: presumed extirpated from Alameda County.	May-Oct Perennial Herb	None: no suitable habitat present.
<i>Lathyrus jepsonii</i> var. <i>jepsonii</i> Delta tule pea	Federal: none State: none CNPS: 1B.2 CNDDDB: G5T2/S2 Other: DFG: SP	Occurs in marshes and swamps (freshwater and brackish). Recorded from Contra Costa, Napa, Sacramento, San Joaquin, Solano, Sonoma, Yolo.	May-Sep Perennial Herb	None: no suitable habitat present.
<i>Trifolium hydrophilum</i> saline clover	Federal: none State: none CNPS: 1B.2 CNDDDB: G2/S2 Other: DFG: SP	Occurs in marshes and swamps, valley and foothill grassland (mesic, alkaline), vernal pools. Recorded from Alameda, Colusa, Monterey, Napa, San Benito, San Luis Obispo, San Mateo, Santa Clara, Santa Cruz, Solano, Sonoma. Additional distribution: questionable in Colusa County.	Apr-Jun Annual Herb	None: no suitable habitat present.
Fissidentaceae				
<i>Fissidens pauperculus</i> minute pocket-moss	Federal: none State: none CNPS: 1B.2 CNDDDB: G3?/S2 Other: DFG: SP	Occurs in North Coast coniferous forest. Moisture: damp, Substrate: soils, Recorded from Butte, Humboldt, Marin, Mendocino, Santa Cruz.	n/a Moss	None: no suitable habitat present.



Special-status Plant Species Evaluated For The Subject Parcel

Jan 14, 2016

FAMILY

Scientific Name Common Name	Status	Habitat Affinities And Reported Distribution	Blooming Time Life Form	Potential For Occurrence On Site
Geraniaceae - Geranium Family				
<i>California macrophylla</i> round-leaved filaree	Federal: none State: none CNPS: 1B.2 CNDDB: G3?/S3? Other: DFG: SP	Occurs in cismontane woodland, valley and foothill grassland Substrate: clay. Recorded from Alameda, Butte, Colusa, Contra Costa, Fresno, Glenn, Kern, Kings, Lake, Lassen, Los Angeles, Merced, Monterey, Napa, Riverside, San Benito, San Diego, San Joaquin, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, Solano, Sonoma, Stanislaus, Tehama, Ventura, Yolo. Santa Cruz Island. Also recorded from Baja California, Oregon, Utah.	Mar-May Annual Herb	None: no suitable habitat present.
Iridaceae - Iris Family				
<i>Iris longipetala</i> coast iris	Federal: none State: none CNPS: 4.2 CNDDB: G3/S3 Other:	Occurs in coastal prairie, lower montane coniferous forest, meadows, seeps Moisture: mesic. Recorded from Alameda, Contra Costa, Humboldt, Marin, Mendocino, Monterey, Napa, San Benito, San Francisco, San Mateo, Santa Clara, Solano, Sonoma.	Mar-May Perennial Herb (rhizomatous)	None: marginally suitable habitat present. Would have been detectable during present survey.
Juglandaceae - Walnut Family				
<i>Juglans californica</i> Southern California black walnut	Federal: none State: none CNPS: 4.2 CNDDB: G3/S3 Other: DFG: SP	Occurs in chaparral, cismontane woodland, coastal scrub, southern oak woodland. Recorded from Los Angeles, Orange, Riverside, San Bernardino, San Diego, Santa Barbara, Ventura.	Mar-May Tree (deciduous)	None: no suitable habitat present. Would have been detectable during present survey.
<i>Juglans hindsii</i> Northern California black walnut	Federal: none State: none CNPS: 1B.1 CNDDB: G1/S1 Other: DFG: SP	Occurs in riparian forest, riparian woodland. Recorded from Contra Costa, Lake, Napa, Sacramento, Solano, Yolo. Additional distribution: presumed extirpated in Sacramento and Yolo counties; questionable occurrence in Lake County.	Apr-May Tree (deciduous)	None: no suitable habitat present. Would have been detectable during present survey.



Special-status Plant Species Evaluated For The Subject Parcel

Jan 14, 2016

FAMILY

Scientific Name Common Name	Status	Habitat Affinities And Reported Distribution	Blooming Time Life Form	Potential For Occurrence On Site
Lamiaceae - Mint Family				
<i>Monardella antonina</i> ssp. <i>antonina</i> San Antonio Hills monardella	Federal: none State: none CNPS: 3 CNDDDB: G4T1T3Q/S1S3 Other: DFG: SP	Occurs in chaparral, cismontane woodland. Recorded from Alameda, Contra Costa, Fresno, Monterey, San Benito, Santa Clara. Additional distribution: questionable in Alameda, Contra Costa, San Benito and Santa Clara counties.	Jun-Aug Perennial Herb (rhizomatous)	None: marginally suitable habitat present. Would have been detectable during present survey.
Liliaceae - Lily Family				
<i>Calochortus pulchellus</i> Mt. Diablo fairy-lantern	Federal: none State: none CNPS: 1B.2 CNDDDB: G2/S2 Other: DFG: SP	Occurs in chaparral, cismontane woodland, riparian woodland, valley and foothill grassland. Recorded from Alameda, Contra Costa, Solano.	Apr-Jun Perennial Herb (bulbiferous)	Not expected: marginally suitable habitat present. No unidentified members of genus detected.
<i>Calochortus umbellatus</i> Oakland star-tulip	Federal: none State: none CNPS: 4.2 CNDDDB: G4/S4 Other: DFG: SP	Occurs in broadleaved upland forest, chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland Substrate: often serpentinite. Recorded from Alameda, Contra Costa, Lake, Marin, San Mateo, Santa Clara, Santa Cruz, Stanislaus. Additional distribution: presumed extirpated in Santa Cruz County.	Mar-May Perennial Herb (bulbiferous)	None: no suitable habitat present.
<i>Fritillaria liliacea</i> fragrant fritillary	Federal: none State: none CNPS: 1B.2 CNDDDB: G2/S2 Other: DFG: SP	Occurs in cismontane woodland, coastal prairie, coastal scrub, valley and foothill grassland Substrate: often serpentinite. Recorded from Alameda, Contra Costa, Marin, Monterey, San Benito, San Francisco, San Mateo, Santa Clara, Solano, Sonoma.	Feb-Apr Perennial Herb (bulbiferous)	Not expected: marginally suitable habitat present. Site has been significantly altered.



Special-status Plant Species Evaluated For The Subject Parcel

Jan 14, 2016

FAMILY

Scientific Name Common Name	Status	Habitat Affinities And Reported Distribution	Blooming Time Life Form	Potential For Occurrence On Site
Malvaceae - Mallow Family				
<i>Malacothamnus hallii</i> Hall's bush-mallow	Federal: none State: none CNPS: 1B.2 CNDDDB: G2/S2 Other: DFG: SP	Occurs in chaparral, coastal scrub. Recorded from Contra Costa, Mendocino, Merced, San Mateo, Santa Clara, Stanislaus, Lake.	May-Oct Shrub (evergreen)	None: no suitable habitat present. Would have been detectable during present survey.
Onagraceae - Evening Primrose Family				
<i>Clarkia concinna</i> ssp. <i>automixa</i> Santa Clara red ribbons	Federal: none State: none CNPS: 4.3 CNDDDB: G5?T3/S3 Other: DFG: SP	Occurs in chaparral, cismontane woodland. Recorded from Alameda, Santa Clara.	Apr-Jul Annual Herb	Not expected: marginally suitable habitat present. No unidentified members of genus detected.
<i>Clarkia franciscana</i> Presidio clarkia	Federal: FE State: SE CNPS: 1B.1 CNDDDB: G1/S1 Other: DFG: SP	Occurs in coastal scrub, valley and foothill grassland (serpentinite). Substrate: serpentinite. Recorded from Alameda, San Francisco.	May-Jul Annual Herb	None: no suitable habitat present.
<i>Oenothera deltooides</i> ssp. <i>howellii</i> Antioch Dunes evening-primrose	Federal: FE State: SE CNPS: 1B.1 CNDDDB: G5T1/S1 Other: DFG: SP	Occurs in inland dunes. Recorded from Contra Costa, Sacramento.	Mar-Sep Perennial Herb	None: no suitable habitat present.



Special-status Plant Species Evaluated For The Subject Parcel

Jan 14, 2016

FAMILY

Scientific Name Common Name	Status	Habitat Affinities And Reported Distribution	Blooming Time Life Form	Potential For Occurrence On Site
Orchidaceae - Orchid Family				
<i>Piperia michaelii</i> Michael's rein orchid	Federal: none State: none CNPS: 4.2 CNDDDB: G3/S3 Other: DFG: SP	Occurs in cismontane woodland, closed-cone coniferous forest, closed-cone pine forest, coastal bluff scrub, coastal sage scrub, coastal scrub, foothill woodland, lower montane coniferous forest, northern coastal scrub, yellow pine forest. Recorded from Alameda, Amador, Butte, Contra Costa, Fresno, Humboldt, Los Angeles, Marin, Monterey, San Benito, San Francisco, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, Santa Cruz, Stanislaus, Tulare, Tuolumne, Ventura, Yuba.Santa Cruz Island.	Apr-Aug Perennial Herb	Not expected: marginally suitable habitat present. No unidentified members of genus detected.
Orobanchaceae - Broomrape Family				
<i>Castilleja ambigua</i> ssp. <i>ambigua</i> Johnny-nip	Federal: none State: none CNPS: 4.2 CNDDDB: G4T5/S4 Other:	Occurs in coastal bluff scrub, coastal prairie, coastal scrub, marshes and swamps, valley and foothill grassland, vernal pools. Recorded from Alameda, Contra Costa, Del Norte, Humboldt, Lake, Marin, Mendocino, Monterey, Napa, San Luis Obispo, San Mateo, Santa Cruz, Solano, Sonoma, Yolo.	Mar-Aug Annual Herb, Hemiparasitic	None: no suitable habitat present.
<i>Chloropyron maritimum</i> ssp. <i>palustre</i> Point Reyes bird's-beak	Federal: none State: none CNPS: 1B.2 CNDDDB: G4?T2/S2 Other: DFG: SP	Occurs in marshes and swamps Habitats Note: coastal salt marsh. Recorded from Alameda, Humboldt, Marin, San Francisco, San Mateo, Santa Clara, Sonoma. Additional distribution: presumed extirpated in Alameda, Santa Clara, and San Mateo counties.Also recorded from Oregon.	Jun-Oct Annual Herb, Hemiparasitic	None: no suitable habitat present.
Papaveraceae - Poppy Family				
<i>Meconella oregana</i> Oregon meconella	Federal: none State: none CNPS: 1B.1 CNDDDB: G2G3/S1 Other: DFG: SP	Occurs in coastal prairie, coastal scrub. Moisture: mesic, Habitats Note: open areas. Recorded from Contra Costa, Santa Clara.Also recorded from Oregon, Washington.	Mar-Apr Annual Herb	Not expected: marginally suitable habitat present. Site has been significantly altered.



Special-status Plant Species Evaluated For The Subject Parcel

Jan 14, 2016

FAMILY

Scientific Name Common Name	Status	Habitat Affinities And Reported Distribution	Blooming Time Life Form	Potential For Occurrence On Site
Polemoniaceae - Phlox Family				
<i>Gilia capitata</i> ssp. <i>chamissonis</i> blue coast gilia	Federal: none State: none CNPS: 1B.1 CNDDDB: G5T2/S2 Other: DFG: SP	Occurs in coastal dunes, coastal scrub. Recorded from Marin, San Francisco, Sonoma.	Apr-Jul Annual Herb	None: no suitable habitat present.
<i>Leptosiphon acicularis</i> bristly linanthus	Federal: none State: none CNPS: 4.2 CNDDDB: G3/S3 Other: DFG: SP	Occurs in chaparral, cismontane woodland, coastal prairie, valley and foothill grassland. Recorded from Alameda, Butte, Contra Costa, Fresno, Humboldt, Lake, Marin, Mendocino, Napa, San Mateo, Santa Clara, Sonoma. Additional distribution: questionable in Contra Costa County.	Apr-Jul Annual Herb	Not expected: marginally suitable habitat present. No unidentified members of genus detected.
<i>Leptosiphon rosaceus</i> rose leptosiphon	Federal: none State: none CNPS: 1B.1 CNDDDB: G1/S1 Other: DFG: SP	Occurs in coastal bluff scrub. Recorded from Marin, San Francisco, San Mateo, Sonoma. Additional distribution: presumed extirpated from San Francisco and Sonoma.	Apr-Jul Annual Herb	None: no suitable habitat present.
<i>Navarretia gowenii</i> Lime Ridge navarretia	Federal: none State: none CNPS: 1B.1 CNDDDB: G1/S1 Other:	Occurs in chaparral. Recorded from Contra Costa, Stanislaus. Additional distribution: Known only from four occurrences; Lime Ridge, Walnut Creek (discovered 1998) and Quinto Canyon, (Stanislaus).	May-Jun Annual Herb	None: no suitable habitat present.



Special-status Plant Species Evaluated For The Subject Parcel

Jan 14, 2016

FAMILY

Scientific Name Common Name	Status	Habitat Affinities And Reported Distribution	Blooming Time Life Form	Potential For Occurrence On Site
Polygonaceae - Buckwheat Family				
<i>Chorizanthe cuspidata</i> var. <i>cuspidata</i> San Francisco Bay spineflower	Federal: none State: none CNPS: 1B.2 CNDDDB: G2T1/S1 Other: DFG: SP	Occurs in coastal bluff scrub, coastal dunes, coastal prairie, coastal scrub Substrate: sandy. Recorded from Alameda, Marin, San Francisco, San Mateo, Sonoma.	Apr-Aug Annual Herb	None: no suitable habitat present.
<i>Chorizanthe robusta</i> var. <i>robusta</i> robust spineflower	Federal: FE State: none CNPS: 1B.1 CNDDDB: G2T1/S1 Other: DFG: SP	Occurs in chaparral (maritime), cismontane woodland (openings), coastal dunes, coastal scrub Substrate: sandy, gravelly. Recorded from Alameda, Marin, Monterey, San Francisco, San Mateo, Santa Clara, Santa Cruz. Additional distribution: presumed extirpated in Alameda, Santa Clara and San Mateo counties; questionable in Marin..	Apr-Sep Annual Herb	None: no suitable habitat present.
<i>Eriogonum luteolum</i> var. <i>caninum</i> Tiburon buckwheat	Federal: none State: none CNPS: 1B.2 CNDDDB: G5T2/S2 Other: DFG: SP	Occurs in chaparral, coastal prairie, valley and foothill grassland, cismontane woodland Substrate: serpentinite, sandy to gravelly. Recorded from Alameda, Contra Costa, Marin, Sonoma. Additional distribution: presumed extirpated from Sonoma County.	May-Sep Annual Herb	None: no suitable habitat present.
<i>Polygonum marinense</i> Marin knotweed	Federal: none State: none CNPS: 3.1 CNDDDB: G2Q/S2 Other: DFG: SP	Occurs in marshes and swamps. Habitats Note: coastal salt or brackish marshes. Recorded from Marin, Napa, Solano, Sonoma, Humboldt.	Apr-Oct Annual Herb	None: no suitable habitat present.



Special-status Plant Species Evaluated For The Subject Parcel

Jan 14, 2016

FAMILY

Scientific Name Common Name	Status	Habitat Affinities And Reported Distribution	Blooming Time Life Form	Potential For Occurrence On Site
Pontederiaceae - Pickerel-weed Family				
<i>Heteranthera dubia</i> water star-grass	Federal: none State: none CNPS: 2B.2 CNDDB: G5/S1 Other:	Occurs in marshes and swamps; (alkaline, still or slow-moving water). Recorded from Butte, Colusa, Del Norte, Glenn, Humboldt, Lassen, Mendocino, Modoc, Placer, Plumas, Sacramento, Shasta, Siskiyou, Solano, Sonoma, Sutter, Tehama, Yolo, Yuba.	Jul-Oct Perennial Herb	None: no suitable habitat present.
Potamogetonaceae - Pondweed Family				
<i>Stuckenia filiformis</i> ssp. <i>alpina</i> slender-leaved pondweed	Federal: none State: none CNPS: 2B.2 CNDDB: G5T5/S3 Other: DFG: SP	Occurs in marshes and swamps. Moisture: shallow, freshwater. Recorded from Alameda, Butte, Contra Costa, El Dorado, Lassen, Mariposa, Merced, Modoc, Mono, Placer, San Mateo, Santa Clara, Shasta, Sierra, Solano, Sonoma. Additional distribution: presumed extirpated from Santa Clara County. Also recorded from Arizona, Nevada, Oregon, Washington.	May-Jul Perennial Herb (rhizomatous), Aquatic	None: no suitable habitat present.
Primulaceae - Primrose Family				
<i>Androsace elongata</i> ssp. <i>acuta</i> California androsace	Federal: none State: none CNPS: 4.2 CNDDB: G5?T3T4/S3S4 Other: DFG: SP	Occurs in chaparral, cismontane woodland, coastal scrub, meadows, seeps, pinyon and juniper woodland, valley and foothill grassland Moisture: dry. Recorded from Alameda, Colusa, Contra Costa, Fresno, Glenn, Kern, Los Angeles, Merced, Riverside, San Benito, San Bernardino, San Diego, San Joaquin, San Luis Obispo, San Mateo, Santa Clara, Siskiyou, Stanislaus, Tehama. Also recorded from Oregon, Baja California.	Mar-Jun Annual Herb	None: no suitable habitat present.
Ranunculaceae - Buttercup Family				
<i>Ranunculus lobbii</i> Lobb's aquatic buttercup	Federal: none State: none CNPS: 4.2 CNDDB: G4/S3 Other: DFG: SP	Occurs in cismontane woodland, North Coast coniferous forest, valley and foothill grassland, vernal pools Moisture: mesic. Recorded from Alameda, Contra Costa, Marin, Mendocino, Napa, Solano, Sonoma, Santa Cruz, San Mateo. Also recorded from Oregon.	Feb-May Annual Herb, Aquatic	None: no suitable habitat present.



Special-status Plant Species Evaluated For The Subject Parcel

Jan 14, 2016

FAMILY

Scientific Name Common Name	Status	Habitat Affinities And Reported Distribution	Blooming Time Life Form	Potential For Occurrence On Site
Rosaceae - Rose Family				
<i>Horkelia cuneata</i> ssp. <i>sericea</i> Kellogg's horkelia	Federal: none State: none CNPS: 1B.1 CNDDB: G4T2/S2? Other: DFG: SP	Occurs in chaparral (maritime), closed-cone coniferous forest, coastal dunes, coastal scrub. Substrate: sandy or gravelly, Habitats Note: openings. Recorded from Alameda, Marin, Monterey, San Francisco, San Luis Obispo, San Mateo, Santa Barbara, Santa Cruz. Additional distribution: presumed extirpated in Alameda, Marin, and San Francisco counties.	Apr-Sep Perennial Herb	None: no suitable habitat present. Would have been detectable during present survey.
Scrophulariaceae - Figwort Family				
<i>Triphysaria floribunda</i> San Francisco owl's-clover	Federal: none State: none CNPS: 1B.2 CNDDB: G2/S2 Other: DFG: SP	Occurs in coastal prairie, coastal scrub, valley and foothill grassland Substrate: usually serpentinite. Recorded from Marin, San Francisco, San Mateo.	Apr-Jun Annual Herb	None: no suitable habitat present.
Thymelaeaceae - Mezereum Family				
<i>Dirca occidentalis</i> western leatherwood	Federal: none State: none CNPS: 1B.2 CNDDB: G2/S2 Other: DFG: SP	Occurs in broadleaved upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, North Coast coniferous forest, riparian forest, riparian woodland Moisture: mesic. Recorded from Alameda, Contra Costa, Marin, San Mateo, Santa Clara, Sonoma.	Jan-Apr Shrub (deciduous)	None: marginally suitable habitat present. Would have been detectable during present survey.

EXPLANATION OF RARITY STATUS CODES

ENDANGERED SPECIES ACT (ESA) LISTING CODES

- FE = federally listed as Endangered
- FT = federally listed as Threatened
- FPE = proposed for listing Endangered
- FPT = proposed for listing Threatened
- FC = federal candidate; former Category 1 candidates
- FD/FPD = delisted/proposed for delisting
- BCC = Bird Species of Conservation Concern
- SC = species of concern; established by NMFS, effective April 15, 2004.

CALIFORNIA ENDANGERED SPECIES ACT (CESA) LISTING CODES

- SE = state-listed as Endangered
- ST = state-listed as Threatened
- SR = state-listed as Rare
- SCE = state candidate for listing as Endangered
- SCT = state candidate for listing as Threatened
- SD/SCD = delisted/State candidate for delisting

GLOBAL (G) AND STATE (S) RANKINGS

- G1/S1 = Critically imperiled: at high risk of extinction, extremely rare.
- G2/S2 = Imperiled: at high risk of extinction, restricted range, very few populations.
- G3/S3 = Vulnerable: moderate risk of extinction, restricted range, few populations.
- G4/S4 = Apparently secure: uncommon, not rare, possible long-term declines.
- G5/S5 = Secure: common, widespread, abundant.
- T = Rank assigned to a sub-specific taxon.

CALIFORNIA RARE PLANT RANKINGS (CNPS LISTS)

- List 1A: Plants presumed extinct in CA, rare or extinct elsewhere.
- List 1B: Plants rare, threatened, or endangered in CA and elsewhere.
- List 2A: Plants presumed extirpated in CA but common elsewhere.
- List 2B: Plants rare, threatened or endangered in CA but common elsewhere.
- List 3: Plants for which more information is needed – a review list.
- List 4: Plants of limited distribution – a watch list.

CNPS Threat Code Extensions

- .1 - Seriously endangered in CA
- .2 – Fairly endangered in CA
- .3 – Not very endangered in CA

OTHER CODES

- ABC: WL** - American Bird Conservancy Watch List of Birds of Conservation Concern.
- AFS** - American Fisheries Society categories of risk for marine, estuarine and diadromous fish stocks. Codes: **E**=endangered; **T**=threatened; **V**=vulnerable
- AUD: WL** - Audubon: Watch List 2007. Bird species facing population decline and/or threats such as loss of breeding and wintering grounds, or species with limited geographic ranges.
R – Red List, global conservation concern; **Y** – Yellow List, national conservation concern.
- BLM: S** - Bureau of Land Mgt: Sensitive. Includes species under review by USFWS or NMFS, species whose numbers are declining so rapidly that federal listing may become necessary, species with small and widely dispersed populations, or species inhabiting refugia or other unique habitats.
- CDF: S** – CA Dept. of Forestry and Fire Protection: Sensitive. Includes species that warrant special protection during timber operations.
- DFW: FP** - CDFW: Fully Protected. Species protected under §§3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the California Fish and Game Code.
- DFW: SA** - CDFW: Special Animal. Species included on the CDFW's lists of special animals.
- DFW: SP** - CDFW: Special Plant. Species included on the CDFW's lists of special plants.
- DFW: SSC** - CDFW: California Species of Special Concern.
- DFW: WL** - CDFW: (Watch List): taxa that don't meet SSC criteria but about which there is concern and additional information is needed to clarify status.
- FS: S** - USDA Forest Service: Sensitive. Species whose population viability is a concern, as evidenced by significant current or predicted downward trends in numbers or density, or in habitat capability that would reduce a species' existing distribution.
- FWS: BCC** - U.S. Fish and Wildlife Service: Birds of Conservation Concern. Migratory and non-migratory bird species that represent the USFWS's highest conservation priorities.
- FWS: BEPA** - U.S. Fish and Wildlife Service: Bald Eagle Protection Act.
- FWS: MBTA** - U.S. Fish and Wildlife Service: International Migratory Bird Treaty Act.
- FWS: MNB** - U.S. Fish and Wildlife Service: Migratory Nongame Birds of Management Concern. Species of concern in the U.S. due to documented or apparent population declines, small or restricted populations, or dependence on restricted or vulnerable habitats.
- MMPA** – Marin Mammal Protection Act
- NMFS: SC** - National Marine Fisheries Service: Species of Concern.
- WBWG** - Western Bat Working Group. Priority for funding, planning or conservation actions.
Codes: **H**=high; **MH**=medium-high; **M**=medium; **LM**=low-medium
- Xerces** - Xerces Society Red List.
Codes: **C**=critically imperiled; **I**=imperiled; **V**=vulnerable; **D**=data deficient