

ENVIRONMENTAL CHECKLIST

Initial Study

1. **Project Title:** Pali Court Estates Subdivision and Residential Development
2. **Lead Agency Name and Address:** City of Oakland
Community and Economic Development
Agency, Planning Division
250 Frank H. Ogawa Plaza, Suite 3315
Oakland, CA 94612
3. **Contact Person and Phone Number:** Pete Vollman, Planner III
510-238-6167
pvollman@oaklandnet.com
4. **Project Location:** Pali Court, Oakland, CA
North of intersection with Glen Arms Drive
APN: 048H-7564-003
5. **Project Sponsor's Name and Address:** Golden Gate View, LLC
Hans Cheuk
20398 Blauer Drive
Saratoga, CA 95070
408-777-9969
6. **General Plan Designation(s):** Hillside Residential
7. **Zoning Designation(s):** R-10 Estate Residential

8. Description of Project:

Subdivision of an existing 4.3-acre lot into six lots and development of one single-family dwelling unit on each lot (Detailed project description is provided below as Item 12)

9. Surrounding Land Uses and Setting. (Briefly describe the project's surroundings.)

The project site is located in the Oakland Hills area of the City of Oakland, near the southeast corner of the Highway 13 and Highway 24 intersection. Specifically, the site is located on Pali Court, north of Glen Arms Drive (see **Figure 1**, Site Location Map and Aerial Photo). Land uses in the project vicinity consist primarily of residential neighborhoods to the south and west, and undeveloped areas bordering on the north and east. All parcels adjacent to the project site are designated as Hillside Residential by the Oakland General Plan land use

diagram. All parcels surrounding the project site are within the R-30 One- Family Residential Zone, except for two undeveloped parcels bordering the project site on the north and west, which are zoned R-10. The northern adjacent parcel is undeveloped and contains three electrical transmission towers.

10. Actions/permits which may be required, and for which this document provides CEQA clearance, include without limitations (e.g., permits, financing approval, or participation agreement, etc.):

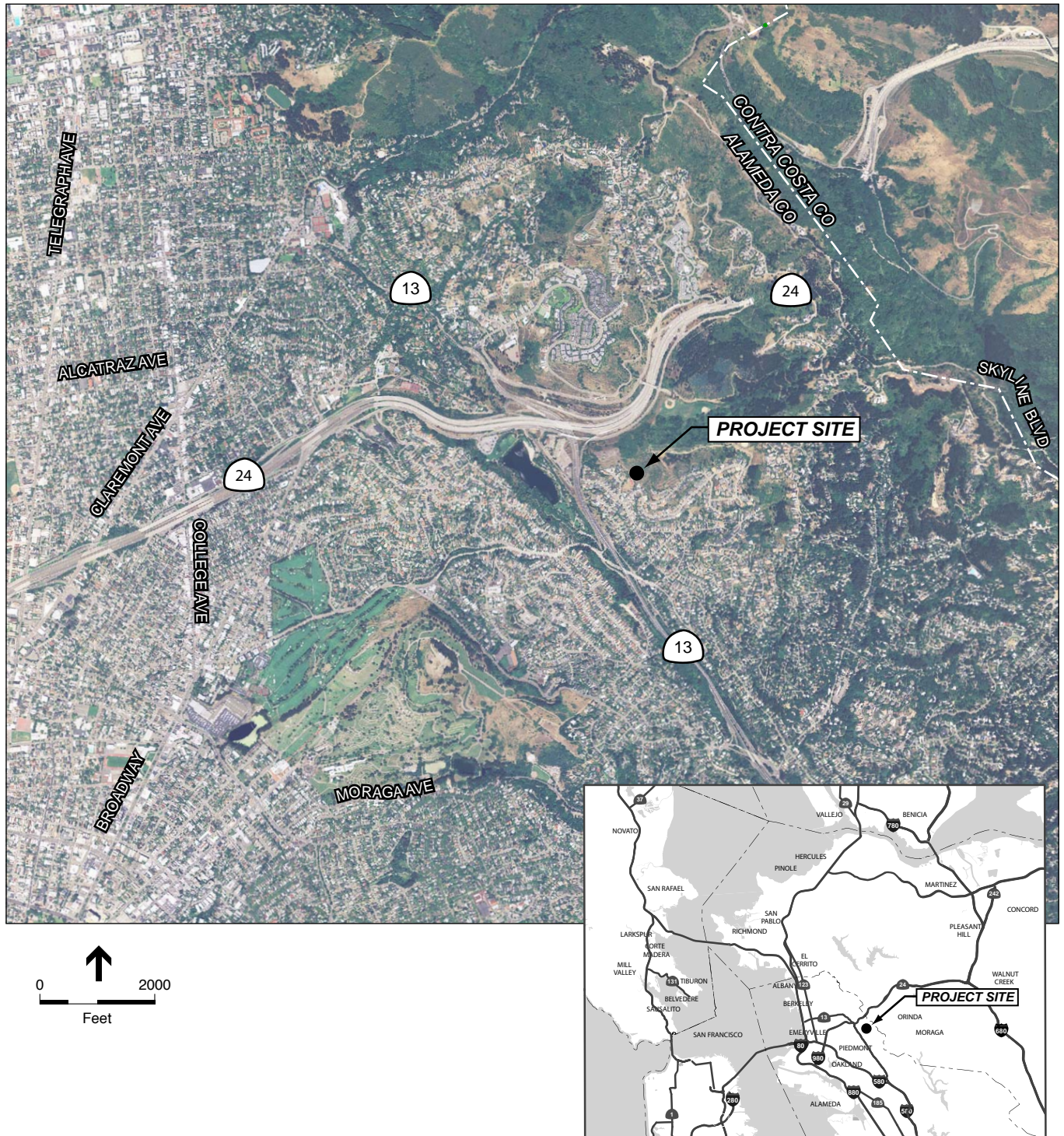
- Planned Unit Development (PUD) permit (for changes to minimum lot size and yard setbacks required by the R-10 Zone);
- Preliminary and Final Development Plans and Design Review for PUD permit approval;
- Tentative Tract Map and Final Map to divide one lot into six;
- Variance from the Dead End Street length restrictions in the Subdivision Ordinance (to allow Pali Court to extend more than 300 feet as a public street);
- Variance from the maximum Public Access Easement (PAE) length restriction and lots served in the Subdivision Ordinance (to allow the PAE to extend more than 300 feet and serve more than four lots);
- Conditional Use Permit to establish Shared Access Facilities (i.e., PAEs);
- Variance from minimum public street width requirements.

11. Other Public Agencies Interested in the Project:

- California Department of Fish and Game (CDFG)
- San Francisco Bay Regional Water Quality Control Board (RWQCB)
- U.S. Army Corps of Engineers (Corps)

12. Detailed Description of Project and Site:

The project site is currently undeveloped and situated on a steep, predominately southwest-facing slope. The site is contiguous with undeveloped land east of the project site and contains a mix of native scrub, non-native ruderal vegetation, a limited amount of perennial grassland, and a grove of coast live oak woodland at the western area of the site. A topographic feature exists on the site that has been determined by the City of Oakland to be a creek. Three electrical transmission towers and high tension utility lines run parallel to and just north of the northern property boundary. Elevations on the property range from 510 to 900 feet above mean sea level (msl) (relative to approximately 450 feet above msl at Highway 13). The proposed project consists of a six-lot single-family subdivision, including portions of two adjacent parcels for site access, and construction of six single-family dwellings on approximately 4.3 acres. Average lot sizes would be approximately 32,198 square feet (sf) and range from 15,179 sf to 46,700 sf (see **Figure 2**, Site Plan). The project sponsor anticipates that the homes would be custom designed and built in accordance with project-specific architectural designs guidelines drafted by the project sponsor (as well as applicable City of Oakland residential design guidelines). Homes would average between 6,000 and 7,000 sf in total floor area.



SOURCE: ESA

Pali Court . 207330

Figure 1
Site Location Map and Aerial Photo

Pali Court is the existing public street which extends from Mountain Boulevard and terminates in a dead end approximately 390 feet from Mountain Boulevard. The proposal would include the extension of Pali Court for an additional 395 feet to serve the proposed lots. The total length of the extended public street resulting in a dead end would be approximately 785 feet. A new Private Access Easement (PAE) would extend from two portions of the extended Pali Court and create a “loop road” of approximately 750 feet in length to serve a total of six lots. One lot, No. 6, would be served solely by the extended Pali Court. The first entry point into the proposed PAE would be located approximately 600 feet from Mountain Boulevard, so that all properties located on the dead end street in excess of 600 feet would have an **alternative** secondary means of egress/access through the loop road rather than a secondary access road.

Overall, the proposed project analyzed in this document includes the following components:

1. Subdivision of one lot into six lots;
2. Development of the project site for six single-family dwellings (one on each lot);
3. Street and public improvements along Pali Court;
4. Wildland fire risk reduction measures;
5. Geotechnical stabilization measures.

Environmental Factors Potentially Affected

The City of Oakland has determined that an EIR shall be prepared for the proposed project, pursuant to Section 15063 of the CEQA Guidelines. The EIR will only address the potential for the proposed project to result in a significant impact to the environmental factors checked below. This Initial Study discusses each environmental factor, particularly those that are unchecked because they are analyzed fully herein and found to result in less-than-significant impacts and thus will not be further studied in the Draft EIR.

- | | | |
|---|--|---|
| <input checked="" type="checkbox"/> Aesthetics | <input type="checkbox"/> Agricultural Resources | <input type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input checked="" type="checkbox"/> Geology, Soils and Seismicity |
| <input checked="" type="checkbox"/> Hazards and Hazardous Materials | <input checked="" type="checkbox"/> Hydrology and Water Quality | <input type="checkbox"/> Land Use and Planning |
| <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise | <input type="checkbox"/> Population and Housing |
| <input checked="" type="checkbox"/> Public Services | <input type="checkbox"/> Recreation | <input checked="" type="checkbox"/> Transportation and Traffic |
| <input type="checkbox"/> Utilities and Service Systems | <input checked="" type="checkbox"/> Mandatory Findings of Significance | |

DETERMINATION:

On the basis of this initial study:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☒ 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 1) has been adequately analyzed in earlier document(s) pursuant to applicable legal standards, and 2) 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. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed, which include: **aesthetics (scenic vistas and resources and visual character), biological resources (creeks, rare and threatened species and habitat), geology (landslides and erosion), hazards (evacuation and wildfires), hydrology and water quality, public services (fire protection), traffic (emergency access), and mandatory findings.** No other environmental factors will be further studied.
- ☐ 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 NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, no further environmental documentation is required.

Signature
Scott Miller
Zoning Manager

Date
For Eric Angstadt
Deputy Director, CEDA

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, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, less than significant with development standards, or less than significant. As defined here, a “Potentially Significant Impact” 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 “Less than Significant with Mitigation” answer applies where incorporation of a mitigation measure has reduced an effect from a “Potentially Significant Impact” to a “Less than Significant Impact.” 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 development standard has reduced an effect from a “Potentially Significant Impact” to a “Less than Significant Impact.” The City’s Uniformly Applied Development Standards (contained in a separate document) are incorporated into projects as Standard Conditions of 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 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 projects on creekside properties.

The Standard Conditions of Approval 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 the information sources a lead agency cites in the parentheses following each question. 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 involved. A “No Impact” answer should be explained where it is based on project –specific factors as well as general standards.

Environmental Checklist

I. Aesthetics

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant with Standard Condition of Approval</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
1. AESTHETICS—Would the project:					
a) Have a substantial adverse effect on a scenic vista?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state or locally designated scenic highway?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would substantially and adversely affect daytime or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Introduce landscape that now or in the future cast substantial shadows on existing solar collectors (in conflict with California Public Resource Code Section 25980-25986)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Cast shadows that substantially impair 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"/>	<input checked="" type="checkbox"/>
g) Cast a 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"/>	<input checked="" type="checkbox"/>
h) Cast shadow on an historic resource, as defined by CEQA 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 and that justify its inclusion on or eligibility for listing in the National Register of Historic Places, California Register of Historical Resources, Local Register of Historic Resources or a historical resource survey form (DPR Form	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant with Standard Condition of Approval</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
523) with a rating of 1-5?					
i) 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"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j) Create winds exceeding 36 mph for more than 1 hour during daylight hours during the year?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a) and b)

The proposed project would construct six single-family homes on an undeveloped lot in the Oakland Hills, consistent with the existing residential General Plan land use designation and zoning district of the site. The project site is situated on a steep, predominately southwest-facing slope. Elevations on the site range from 510 to 900 feet above mean sea level (msl) (relative to approximately 450 feet above msl at Highway 13). Views of the site from the north and east are generally obstructed by existing hillside, however, the approximately 4.3-acre project site is visible, due to its hillside location from the south and west. Portions of the site can be seen from nearby Highways 13 and 24, and from Lake Temescal. Based on the area of the project site delineated in these publicly-accessible views, the proposed project may result in a potentially significant impact to scenic vistas. This topic will be fully analyzed in the EIR, including through use of visual simulations.

- c) Development of the project site would result in changes to the existing hillside. Currently, the site is undeveloped and has not been graded or had its surface altered, with the exception of a small plateau northwest of the cul-de-sac at the existing driveway off the end of Pali Court. The project would alter the site's visual character from undeveloped open space through the development of six single-family homes and may result in a potentially significant impact regarding the existing visual character of the site and its surroundings. This topic will be fully analyzed in the EIR, including through use of visual simulations.
- d) The project site is located in a residential area predominated by single-family development and open space. Existing sources of light and glare are associated with those nearby land uses. The project would incrementally increase the level of light generated from the site by establishing new sources of nighttime interior and exterior lighting typical of single-family homes and would be visible from, and potentially cast light to, the surrounding neighborhood.

However, the effect of six new single-family homes is not expected to be substantial or adversely affect existing day or night views. Implementation of the following standard condition of approval that the City applies to all development projects would reduce lighting impacts of the project to less than significant levels:

STANDARD CONDITION AES-1: *Prior to issuance of an electrical or building permit.* The proposed lighting fixtures shall be adequately shielded to a point below the light bulb and reflector and that prevent unnecessary glare onto adjacent properties. Plans shall be submitted to the Planning and Zoning Division and the Electrical Services Division of the Public Works Agency for review and approval. All lighting shall be architecturally integrated into the site.

e) and f)

No solar collectors or buildings designed for passive solar heating or equipped with photovoltaic or solar hot water collectors were observed in the project area. Thus, the impact pertaining to landscape- or building-induced shadow effects on existing solar collectors or buildings using passive solar heat would be less than significant.

g) and h)

There are no public or quasi-public parks, lawns, gardens, or open spaces in the immediate project vicinity that would be impacted by new shadow generated by the proposed project. Therefore, the project would have no impact on the beneficial use of such spaces. As indicated in Section V, Cultural Resources, there are no historical resources, as defined for purposes of this CEQA analysis, in the project vicinity. Therefore, new shadow generated by the proposed project would not materially impair any resource's historic significance and would result in no impact.

- i) The variances requested by the proposed project do not conflict with policies and regulations of the General Plan or Uniform Building Code regarding the provision of adequate light. Generally, variances sought for the project would, in effect, allow for a longer roadway (Pali Court) serving the project and allow narrower roadway width of such roadways. While this could result in residences being located closer, minimum lot area and yard requirements (even as reduced as required through the conditional use permit process through the PUD allowances) would incorporate minimum yards and setback dimensions to ensure adequate light and air. The impact would be less than significant. (Also see discussion of variances of regulations adopted for the purpose of avoiding environmental impacts, in Section IX, Land Use and Planning.)
- j) Proposed residential homes would not exceed 100 feet in height; therefore, the wind hazards criterion is not applicable to the project. The project would have no impact.

References

- California Department of Transportation, *The California Scenic Highway System*, <http://www.dot.ca.gov/hq/LandArch/scenic/cahisys.htm>, accessed August 10, 2007.
- City of Oakland, *Interim Design Review Manual for One- and Two-Unit Residences*, June 15, 2005.
- City of Oakland, *Oakland General Plan, Land Use and Transportation (LUTE) Element*, June 1998, as amended.
- City of Oakland, *Oakland General Plan, Open Space, Conservation and Recreation (OSCAR) Element*, June 1996.
- Project Plans, 2009.

II. Agricultural Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant with Standard Condition of Approval</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
2. AGRICULTURAL RESOURCES—Would the project:					
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resource Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

- a) - c) The project would be located in an urban area and there are no agricultural or farmland uses within or adjacent to the project site. The project site is designated for residential use by the General Plan and the Oakland Zoning Map. Therefore, the project would have no impact on agricultural resources.

References

City of Oakland, *Oakland General Plan, Open Space, Conservation and Recreation (OSCAR) Element*, June 1996.

City of Oakland, *Oakland General Plan, Land Use and Transportation (LUTE) Element*, June 1998, as amended.

III. Air Quality

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant with Standard Condition of Approval</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
3. AIR QUALITY—Would the project:					
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Frequently create substantial objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Contribute to CO concentrations exceeding the State AAQS of 9 ppm averaged over 8 hours and 20 ppm for 1 hour?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Result in total emissions of ROG, NOx, or PM10 of 15 tons per year or greater, or 80 pounds (36 kilograms) per day or greater?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Result in potential to expose persons to substantial levels of Toxic Air Contaminants (TAC), such that the probability of contracting cancer for the Maximally Exposed Individual (MEI) exceeds 10 in one million?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant with Standard Condition of Approval	Less Than Significant Impact	No Impact
i) Result in ground level concentrations of non-carcinogenic TACs such that the Hazard Index would be greater than 1 for the MEI?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j) Result in a substantial increase in diesel emissions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cumulative Impacts					
k) Result in any of the above project-specific significant impacts?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
l) Result in a fundamental conflict with the local general plan, when the general plan is consistent with the regional air quality plan? When the general plan fundamentally conflicts with the regional air quality plan, then if the contribution of the proposed project is cumulatively considerable when analyzed the impact to air quality should be considered significant.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
m) Greenhouse Gas Emissions and Global Climate Change Impacts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

- a) The entire San Francisco Bay Area is currently designated “non-attainment” for the state one-hour ozone standard and the federal 8-hour ozone standard. The *Bay Area 2005 Ozone Strategy* reviews the region's progress over the years in reducing ozone levels, describes current conditions, and charts a course for future actions to further reduce ozone levels in the Bay Area. The control strategy is a central element of the *Bay Area 2005 Ozone Strategy*. The control strategy outlines a set of control measures to further reduce ozone precursor emissions in order to reduce ozone levels in the Bay Area and to reduce transport of pollution to downwind regions.

The project would not substantially increase the City of Oakland’s population (see Section XII, Population and Housing). Therefore, the project would not result in a change to the population-growth and vehicle-miles-traveled assumptions included in the *Bay Area 2005 Ozone Strategy*. As a result, the project would not conflict with or obstruct implementation of the *Bay Area 2005 Ozone Strategy*, and the impact would be less than significant. The proposed project would comply with all applicable rules and regulations that have been developed as part of the Strategy and, as noted below, will follow the Bay Area Air Quality Management District’s (BAAQMD) CEQA Guidelines recommendations. Therefore, the proposed project would not impact or obstruct the implementation of the applicable air quality plans

b), c), d) and g)

The entire San Francisco Bay Area is currently designated “non-attainment” for the state particulate matter (PM₁₀ and PM_{2.5}) standards, and the state one-hour and the national eight-hour ozone standards. As part of the effort to reach attainment of these standards, the BAAQMD has established thresholds of significance for several criteria air pollutants associated with operation of projects. Specifically, a project is considered to have a significant air quality impact that could potentially violate air quality standards if it would result in an increase in emissions of 80 pounds per day or 15 tons per year of PM₁₀, reactive organic gases (ROG), or nitrogen oxides (NO_x).

Development of the project would require preparation of the site and construction of the proposed project. Construction activities typically result in emissions of PM, usually in the form of fugitive dust from activities such as excavation, grading, and vehicle travel on unpaved surfaces. In the absence of mitigation, construction activities may result in significant quantities of dust on a temporary and intermittent basis during the construction period, which could affect nearby sensitive receptors, such as single-family homes. BAAQMD’s approach to analyses of construction impacts as noted in the *BAAQMD CEQA Guidelines* is to emphasize implementation of effective and comprehensive control measures rather than detailed quantification of emissions. With implementation of the following standard conditions of approval, the project’s construction-related dust impacts would be less than significant:

STANDARD CONDITION AQ-1: *Prior to issuance of a demolition, grading, or building permit.* During construction, the project applicant shall require the construction contractor to implement the following measures required as part of Bay Area Air Quality Management District’s (BAAQMD) basic and enhanced dust control procedures required for construction sites.

These include the following Basic controls that apply to all construction sites:

- Water all 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 possible.
- 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).
- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites.
- Sweep daily (with water sweepers using reclaimed water if possible) all paved access roads, parking areas and staging areas at construction sites.
- Sweep streets (with water sweepers using reclaimed water if possible) at the end of each day if visible soil material is carried onto adjacent paved roads.

- Limit the amount of the disturbed area at any one time, where feasible.
- Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph.
- Pave all roadways, driveways, sidewalks, etc. as soon as feasible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.
- Replant vegetation in disturbed areas as quickly as feasible.
- Enclose, cover, water twice daily or apply (non-toxic) soil stabilizers to exposed stockpiles (dirt, sand, etc.).
- Limit traffic speeds on unpaved roads to 15 miles per hour.
- Clean off the tires or tracks of all trucks and equipment leaving any unpaved construction areas.

In addition to the Basic controls listed above, the project shall also implement the following Enhanced controls that apply to construction sites greater than four acres in area:

- Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for one month or more).
- Designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the BAAQMD prior to the start of construction as well as posted on-site over the duration of construction.
- Install appropriate wind breaks at the construction site to minimize wind blown dust.

BAAQMD CEQA Guidelines recognize that construction equipment emits ozone precursors, but indicate that such emissions are included in the emission inventory that is the basis for regional air quality plans. Therefore, construction emissions of ROG and NO_x are not expected to impede attainment or maintenance of ozone standards in the Bay Area. The impact of construction equipment exhaust emissions would be less than significant with implementation of the following standard condition of approval:

STANDARD CONDITION AQ-2: *Prior to issuance of a demolition, grading, or building permit.* To minimize construction equipment emissions during construction, the project applicant shall require the construction contractor to:

- Demonstrate compliance with Bay Area Air Quality Management District (BAAQMD) Regulation 2, Rule 1 (General Requirements) for all portable construction equipment subject to that rule. BAAQMD Regulation 2, Rule 1 provides

the issuance of authorities to construct and permits to operate certain types of portable equipment used for construction purposes (e.g., gasoline or diesel-powered engines used in conjunction with power generation, pumps, compressors, and cranes) unless such equipment complies with all applicable requirements of the “CAPCOA” Portable Equipment Registration Rule” or with all applicable requirements of the Statewide Portable Equipment Registration Program. This exemption is provided in BAAQMD Rule 2-1-105.

- Perform low- NO_x tune-ups on all diesel-powered construction equipment greater than 50 horsepower (no more than 30 days prior to the start of use of that equipment). Periodic tune-ups (every 90 days) should be performed for such equipment used continuously during the construction period.

Therefore, the project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation during construction.

After the project is constructed and occupied, emissions of criteria air pollutants would be generated primarily as a result of increased motor vehicle traffic associated with the new residences (see Section XV, Transportation and Traffic). However, the analysis of the proposed project using the URBEMIS air quality model estimates project vehicle traffic would generate criteria pollutant levels far below the significance threshold of 80 pounds per day identified by the BAAQMD. Maximum emissions of reactive organic gases (ROG), nitrogen oxides (NO_x), and fine particulate (PM₁₀) would be approximately 0.80 pounds per day, 1.32 pounds per day, and 1.07 pounds per day, respectively. Therefore, the project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation.

- e) The proposed project would not result in the creation of an odor emitting source as identified by the *BAAQMD CEQA Guidelines*. Nor would the proposed project result in the location of sensitive receptors near an existing odor emitting source.
- f) Increased vehicle traffic from the project would also affect localized carbon monoxide (CO) concentrations at nearby intersections. However, CO levels have been declining for a number of years and are expected to continue to do so in the future, and the relatively few vehicle trips that the project would generate (approximately 14 vehicle trips in the p.m. peak hour) would not likely exceed the state CO standard at any local intersections.

h) – j)

The proposed residential development of six single-family homes would not result in the construction of a new stationary source of toxic air contaminants (TAC) or diesel emissions. Therefore, the project would not result in stationary source TAC emissions that would increase cancer risk by more than 10 in a million for any receptor nor result in substantial increases in diesel particulate emissions. In addition, the project site is not located near existing sources of substantial TACs or diesel emissions. Therefore, impacts regarding toxic air contaminants and diesel emissions would be less than significant.

k) and l)

The proposed project would not result in any significant air quality impacts nor would it conflict with the adopted General Plan; nor would the project, when considered with other development within the vicinity in future years, result in a cumulative impact. No impact would result.

m) Greenhouse Gas Emissions (GHG) and Climate Change

There is a general scientific consensus that global climate change is occurring, caused in whole or in part by increased emissions of greenhouse gases (GHGs) that keep the Earth's surface warm by trapping heat in the Earth's atmosphere, in much the same way as glass in a greenhouse. While many studies show evidence of warming over the last century, and predict future global warming, the causes of such warming and its potential effects are far less certain. In its "natural" condition, the greenhouse effect is responsible for maintaining a habitable climate on Earth, but human activity has caused increased concentrations of these gases in the atmosphere, thereby contributing to an increase in global temperatures. Carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), ozone (O₃), and water vapor (H₂O) are the principal GHGs, and when concentrations of these gases exceed the natural concentrations in the atmosphere, the greenhouse effect may be enhanced. Without these GHGs, Earth's temperature would be too cold for life to exist. CO₂, CH₄ and N₂O occur naturally as well as through human activity. Of these gases, CO₂ and CH₄ are emitted in the greatest quantities from human activities. Emissions of CO₂ are largely by-products of fossil fuel combustion, whereas CH₄ results from off-gassing associated with agricultural practices and landfills. Man-made GHGs – with much greater heat-absorption potential than CO₂ – include fluorinated gases such as hydrofluorocarbons (HFCs), perfluorocarbons (PFC), and sulfur hexafluoride (SF₆) which are byproducts of certain industrial processes.

In 2005, it was estimated that the emission of CO₂ equivalents (CO₂e) from all major sources totaled 2,200,000 tons, nearly half of which from transportation. From year 2005, emissions are forecast to increase by 12 percent by 2010 (to 2,500,000 tons of CO₂e), and 19.5 percent (to 2,700,000 tons of CO₂e) by 2020, assuming "business as usual" into the future.

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order (EO) S-3-05, establishing statewide GHG emission reduction targets. This EO provides that by 2010, emissions shall be reduced to 2000 levels; by 2020, emissions shall be reduced to 1990 levels; and by 2050, emissions shall be reduced to 80 percent of 1990 levels. On August 31, 2006, the California Assembly passed Bill 32 (AB 32 – signed into law on September 27, 2006), which commits California to reduce GHG emissions to 1990 levels and establishes a multi-year regulatory process under the jurisdiction of the California Air Resources Board (CARB) to establish regulations to achieve these goals. CARB is also required to adopt a statewide GHG emissions limit equivalent to the statewide GHG emissions levels in 1990, which must be achieved by 2020. By January 1, 2011, CARB is required to adopt rules and regulations, which shall become operative on January 1, 2012, to achieve the maximum technologically feasible and cost-effective GHG emission reductions.

On December 11, 2008 CARB adopted its Climate Change Scoping Plan (Scoping Plan), which functions as a roadmap of CARB's plans to achieve GHG reductions in California required by AB 32 through subsequently enacted regulations. The Scoping Plan contains the main strategies California will implement to reduce CO₂e emissions by 169 million metric tons (MMT), or approximately 30 percent, from the state's projected 2020 emissions level of 596 MMT of CO₂e under a business-as-usual scenario. (This is a reduction of 42 MMT CO₂e, or almost 10 percent, from 2002–2004 average emissions, but requires the reductions in the face of population and economic growth through 2020.) The Scoping Plan also breaks down the amount of GHG emissions reductions CARB recommends for each emissions sector of the state's GHG inventory. While CARB has identified a GHG reduction target of 15 percent for local governments themselves, it has not yet determined what amount of GHG emissions reductions it recommends from local government land use decisions. However, the Scoping Plan does state that successful implementation of the plan relies on local governments' land use planning and urban growth decisions because local governments have primary authority to plan, zone, approve, and permit land development to accommodate population growth and the changing needs of their jurisdictions. CARB further acknowledges that decisions on how land is used will have large effects on the GHG emissions that will result from the transportation, housing, industry, forestry, water, agriculture, electricity, and natural gas emission sectors. The Scoping Plan states that the ultimate assignment to local government operations is to be determined. The measures approved by CARB will be developed over the next two years and be in place by 2012.

SB 375, signed in September 2008 (Chapter 728, Statutes of 2008), aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. SB 375 requires metropolitan planning organizations (MPOs) to adopt a Sustainable Communities Strategy (SCS) or Alternative Planning Strategy (APS) that will prescribe land use allocation in that MPOs regional transportation plan. CARB, in consultation with MPOs, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, transportation projects will not be eligible for funding programmed after January 1, 2012.

The construction and occupation of residential developments, such as the proposed project, cause GHG emissions. GHG emissions occur in connection with many activities associated with development, including the use of construction equipment and building materials, vegetation clearing, natural gas usage, electrical usage (since electricity generation by conventional means is a major contributor to GHG emissions), water use (which relies on the use of electricity for pumping), and transportation. However, it is important to acknowledge that new development does not necessarily create entirely new GHG emissions, since most of the persons who will visit or occupy new development will come from other locations where they were already causing such GHG emissions. Further, it has not been demonstrated that even new GHG emissions caused by a local development project can affect global climate

change, or that a project's net increase in GHG emissions, if any, when coupled with other activities in the region, would be cumulatively considerable.

CEQA Guidelines and the CEQA Initial Study Checklist do not contain any provisions that specifically set forth requirements for analysis of global climate change impacts in an Initial Study. As stated in Section 15064(b) of the State CEQA Guidelines, "The determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data." Additionally, CEQA Guidelines Section 15145 states, "If, after thorough investigation, a Lead Agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact."

Moreover, Governor Schwarzenegger signed SB 97 (Chapter 185, Statutes 2007) into law on August 24, 2007. The legislation provides partial guidance on how greenhouse gases should be addressed in certain CEQA documents.

SB 97 requires the Governor's Office of Planning and Research ("OPR") to prepare CEQA guidelines for the mitigation of GHG emissions, including, but not limited to, effects associated with transportation or energy consumption. OPR must prepare these guidelines and transmit them to the Natural Resources Agency by July 1, 2009. The Natural Resources Agency must then certify and adopt the guidelines by January 1, 2010. OPR and the Natural Resources Agency are required to periodically review the guidelines to incorporate new information or criteria adopted by CARB pursuant to the Global Warming Solutions Act, scheduled for 2012.

In January 2009, OPR released preliminary proposed amendments to the CEQA Guidelines regarding GHG emissions. No significance threshold is included in the draft and the guidelines afford the customary deference provided to lead agencies in their analysis and methodologies. The introductory preface to the amendments recommends that CARB set state-wide thresholds of significance. OPR emphasized the necessity of having a consistent threshold available to analyze projects, and the analyses should be performed based on the best available information. The revisions would include a new section specifically addressing the significance of GHG emissions that would build upon OPR's interim Technical Advisory. Like the advisory, the proposed Guidelines section calls for quantification of GHG emissions. The proposed section states that the significance of GHG impacts should include consideration of the extent to which the project would help or hinder compliance with AB 32 goals; increase energy use, especially that generated by fossil fuel combustion; improve energy efficiency; and result in emissions that would exceed any applicable significance threshold. In April 2009, OPR forwarded the draft revisions to the California Natural Resources Agency for review and proposed adoption. As noted, under SB 97, final language for the CEQA Guidelines is to be adopted by January 1, 2010.

In April 2009, the BAAQMD issued a draft report on CEQA thresholds of significance, as part of a planned update of the District's CEQA Guidelines, which were last updated in 1999. The existing BAAQMD CEQA Guidelines contain no thresholds of significance for GHGs.

The April 2009 report identifies two potential approaches for determining the significance of GHG emissions, one based on AB 32 emission reduction goals, and the second based on thresholds currently being developed by CARB. The BAAQMD report identifies three options for proceeding under the AB 32 approach: establishment of a project-specific numerical threshold; establishment of a performance standard equal to the emissions reduction required to meet the AB 32 target; or a combination of performance standard and numerical threshold. Under the CARB approach, a project would generally be found to have a less-than-significant effect with respect to GHGs if it were to implement a series of performance standards and, potentially, have emissions at an amount less than a quantitative threshold (yet to be established for most types of projects), or if the project were consistent with a CARB-approved Sustainable Communities Strategy (SCS), which is a regional plan for GHG reduction to be developed by the applicable MPO (in the Bay Area, the Metropolitan Transportation Commission) [see discussion of SB 375, above].

The second part of SB 97 codifies safe harbor for highways and flood control projects. It provides that the failure of a CEQA document for a project funded by Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006 or the Disaster Preparedness and Flood Prevention Bond Act of 2006 to adequately analyze the effects of GHG emission otherwise required to be reduced pursuant to the regulations adopted under the Global Warming Solutions Act (which are not slated for adoption until January 1, 2012), does not create a cause of action for a violation of CEQA. This portion of SB 97 has a sunset date of January 1, 2010.

The bill does not address the obligation to analyze GHGs in projects not protected by the safe harbor provision. One possible interpretation is that there is no duty until the guidelines are adopted, because CEQA Guidelines section 15007 subdivision (b), provides that guideline amendments apply prospectively only.

Discussed below are the project-related activities that could contribute to the generation of increased GHG emissions, and project design features that would avoid or minimize those emissions.

The approach employed is that, the effects of a proposed project may be evaluated based not upon the quantity of emission, but rather on whether practicable available control measures are implemented, similar to construction-related dust emissions within the San Francisco Bay air basin. Theoretically, if a project implements reduction strategies identified in AB-32, the Governor's Executive Order S-3-05, or other strategies to help toward reducing GHGs to the level proposed by the Governor and targeted by the City of Oakland, it could reasonably follow that the project would not result in a significant contribution to the cumulative impact of global climate change. Alternatively, a project could reduce a potential cumulative contribution to GHG emissions through energy efficiency features, density and locale (e.g., compact development near transit and activity nodes of work or shopping).

As discussed above, the construction and operation of the proposed project would generate GHG emissions, with the majority of energy consumption (and associated generation of

GHG) occurring during operation. Typically, more than 80 percent of total energy consumption takes place during the use of the buildings, and less than 20 percent is consumed during construction. As yet, there is no study that quantitatively assesses all of the GHG emissions associated with each phase of the construction and use of an individual residential development.

Overall, the following activities associated with a typical residential development could contribute to the generation of GHG emissions:

- **Removal of Vegetation** – The net removal of vegetation for construction results in a loss of carbon sequestration in plants. Alternately, planting of additional vegetation would result in additional carbon sequestration and lower carbon footprint of the project.
- **Construction Activities** – Construction equipment typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as carbon dioxide, methane, and nitrous oxide. Furthermore, methane is emitted during the fueling of heavy equipment.
- **Gas, Electricity and Water Use** – Gas use results in the emissions of two GHGs: methane (the major component of natural gas) and carbon dioxide from the combustion of natural gas (as before a flame on a stove is sparked), and from small amounts of methane that is uncombusted in a natural gas flame. Electricity use can result in GHG production if the electricity is generated by combusting fossil fuel. California's water conveyance system is energy-intensive, with electricity used to pump and treat water.
- **Motor Vehicle Use** – Transportation associated with the proposed project would result in GHG emissions from the combustion of fossil fuels in daily automobile and truck trips.

While the proposed project and all development of similar land use would generate GHG emissions as described above, the City of Oakland's ongoing implementation of its Sustainability Community Development Initiative and other programs/policies will collectively reduce the levels of GHG emissions and contributions to global climate change attributable to activities throughout Oakland¹.

While no significant GHG emissions-related impacts have been identified, and no mitigation is required, project characteristics and design features which have been included in the project to reduce the amount of GHG emissions generated during construction and operation are provided below:

- **City of Oakland** – According the Pedestrian Master Plan, the City of Oakland has the highest walking rates for all cities in the nine-county San Francisco Bay Region. It is noted that these high pedestrian trips are likely because the neighborhoods are densely populated

¹ The City of Oakland has adopted legislation related to sustainability and reduction of GHG Emission's which include: the Climate Protection Ordinance, Construction and Demolition Recycling Ordinance, Green Building Ordinance, Green Fleet Resolution, Waste Reduction Resolution, Chicago Climate Exchange Resolution, Zero Waste Resolution, and the Oil Independence Resolution. Current City of Oakland programs that reduce GHG Emissions include: California Youth Energy Services, Residential and Business Recycling, encouraging Transit Village Development Plans, implementation of the Pedestrian and Bicycle Master Plans.

and well served by transit, including Bay Area Rapid Transit (BART), AC Transit, Amtrak, and the Alameda Ferry. As such, the Project would reduce transportation-related GHG emissions compared to emissions from the same level of development elsewhere in the outer Bay Area.

- **Energy Efficiency** – The proposed project would be required to comply with all applicable local, state, and federal regulations associated with the generation of GHG emissions and energy conservation. In particular, construction of the proposed project would also be required to meet California Energy Efficiency Standards for Residential and Nonresidential Buildings, and the requirements of pertinent City policies as identified in the City of Oakland General Plan, helping to reduce future energy demand as well as reduce the project's contribution to regional GHG emissions.
- **Construction Waste** – The proposed project will be required to comply with the Construction and Waste Reduction Ordinance and submit a Construction and Demolition Waste Reduction Plan for review and approval. As a result, construction-related truck traffic, which primarily have diesel fueled engines, would be reduced since demolition debris hauled off site would be reused on site. In addition, reuse of concrete, asphalt, and other debris will reduce the amount of material introduced to area landfills.
- **Conservation Easement** – The proposed project would establish approximately one (1) acre of the total site as open space in a conservation easement. The easement will include a provision for vegetation management. The net removal of vegetation for construction results in a loss of carbon sequestration in plants. Alternately, planting of additional vegetation would result in additional carbon sequestration and lower carbon footprint of the proposed project. As such, the proposed project would reduce GHG emissions by retaining vegetation.

Although no significant impacts related to GHG emissions have been identified, and no mitigation is required, the project's GHG emissions generated during construction and operation would be minimized by virtue of the existing characteristics and design features that have been included in the project. In addition, emissions would also be reduced since the project is subject to all the regulatory requirements, mitigation measures, and standard conditions in this Initial Study that would reduce GHG emissions of the project. These include, for example, adherence to best management construction practices and equipment use, and maximizing Provision C.3 standards regulating post-construction stormwater.

References

- City of Oakland, *Oakland General Plan, Land Use and Transportation (LUTE) Element*, June 1998, as amended.
- Bay Area Air Quality Management District, *Bay Area 2005 Ozone Strategy*, January 4, 2006.
- Bay Area Air Quality Management District, *BAAQMD CEQA Guidelines, Assessing the Air Quality Impacts of Projects and Plan*, December 1999.
- Project Plans, 2009.
- URBEMIS 2007 v.9.2, June 2007.

IV. Biological Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant with Standard Condition of Approval</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
4. BIOLOGICAL RESOURCES— Would the project:					
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands (as defined by Section 404 of the Clean Water Act) or state protected wetlands, through direct removal, filling, hydrological interruption, or other means?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) 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"/>	<input checked="" type="checkbox"/>
f) Fundamentally conflict with the City of Oakland Tree Preservation and Removal Ordinance (Oakland Municipal Code (OMC) Chapter 12.36) by removal of protected trees under certain circumstances? 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) the protected trees to remain, with special consideration given to native trees.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant with Standard Condition of Approval</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
Protected trees include the following: <i>Quercus agrifolia</i> (California or coast live oak) measuring four inches diameter at breast height (dbh) or larger, and any other tree measuring nine inches dbh or larger except eucalyptus and <i>pinus radiata</i> (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 to be Protected trees.					
g) Fundamentally conflict with the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16) intended to protect biological resources. 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 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?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

The project site is located on the western slopes of the Oakland Hills, approximately 0.19 miles (nearly 1,000 feet) northeast of Lake Temescal (as measured by straight line, from the existing end of Pali Court roadway, to the nearest edge of the lake). The site is situated on a steep, predominately southwest-facing slope. Elevations on the property range from 510 to 900 feet above mean sea level (relative to approximately 450 feet above msl at Highway 13. South and west (down-slope) of the project site are single-family residences. North of the project site is Highway 24 and undeveloped area, which also exists east of the property. Three electrical transmission towers and high tension utility lines run parallel to and just north of the northern property boundary. The property is undeveloped and has not been graded or had its surface altered, with the exception of a small plateau northwest of the cul-de-sac at the end of Pali Court.

- a) As introduced above, the project site is undeveloped and contains multiple habitats dominated by native species. Although bordered by development on two sides (south and west) and near

Highway 13 on the west, the site is contiguous with additional undeveloped land east of the project site. The project would result in the loss of scrub, oak woodland, and a limited amount of perennial grassland. It could adversely affect special status species, including Alameda whipsnake, that utilize these habitats. Because the proposed project may result in a potentially significant impact to special status species, this topic will be fully analyzed in the EIR.

- b) Construction associated with the project would result in the temporary and permanent removal of existing vegetation in association with excavation and grading, as well as the construction of roads and buildings. The major vegetation types occurring within the project site include scrub, oak woodland, perennial grassland and ruderal. These vegetation types, except for ruderal, are dominated by native species. The permanent loss of this vegetation could adversely affect both common and special status wildlife species, locally. Because the proposed project may result in a potentially significant impact, this topic will be fully analyzed in the EIR.
- c) A wetland delineation of the project site was conducted in January 2007 by Wood Biological Consulting (Wood, 2007). The Corps has verified the delineation but a jurisdiction has not been issued as of publication of this document. One potentially jurisdictional feature is present within the project site. This feature is a topographic “fold” located on a steep slope and extending up the hill from the driveway to the off-site home. Scouring is present within the feature but no wetland vegetation is present. The feature likely experiences ephemeral flow. Flows are picked up by a concrete pipe located adjacent to the driveway. For the purposes of this document, the topographic feature is considered a wetland, but without substantial wetland function. The City of Oakland determined that the topographic feature is a creek in 2002. Potential adverse impacts that could result with the proposed project, presuming the Corps finds the feature to be jurisdictional, include permanent or temporary fill and/or accidental discharges of fill materials or other deleterious substances during construction; this topic will be fully analyzed in the EIR.
- d) The loss of active nests of special-status species will be analyzed in the EIR.
- e) There are no adopted Habitat Conservation Plans, Natural Community Conservation Plans, or any other approved local, regional, or state habitat conservation plans that apply to the project site.
- f) The City of Oakland Tree Ordinance protects *Quercus agrifolia* (California or coast live oak) measuring four inches diameter at breast height (dbh) or larger, and any other tree measuring nine inches dbh or larger except eucalyptus and *pinus radiata* (Monterey pine).

Due to topographic constraints on the project site that limit vehicle access, planned roadway extensions and improvements would require the removal of six trees on the project site: one multi-trunked cypress (dbh = 36”), one coast live oak (dbh = 13 inches), and four Monterey pines (dbh = 9-12”). All six trees are adjacent to the existing Pali Court roadway, see **Figure 3**. Although all reasonable good faith efforts will be made to retain the Oak and Cypress trees adjacent to the roadway, it is conservatively (i.e., worst case scenario) assumed that they will likely require permits for their removal.

Implementation of the following standard conditions will reduce impacts to the cypress and the coast live oak to less than significant levels:

STANDARD CONDITION BIO-1: *Prior to issuance of a demolition, grading, or building permit.* Prior to removal of any protected trees, per the Protected Tree Ordinance, located on the project site or in the public right-of-way adjacent to the project, the project applicant must secure a tree removal permit from the Tree Division of the Public Works Agency, and abide by the conditions of that permit.

STANDARD CONDITION BIO-2: *Prior to issuance of a final inspection of the building permit.* Replacement plantings shall be required for erosion control, groundwater replenishment, visual screening and wildlife habitat, and in order to prevent excessive loss of shade, in accordance with the following criteria:

- a) 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.
- b) Replacement tree species shall consist of *Sequoia sempervirens* (Coast Redwood), *Quercus agrifolia* (Coast Live Oak), *Arbutus menziesii* (Madrone), *Aesculus californica* (California Buckeye) or *Umbellularia californica* (California Bay Laurel) or other tree species acceptable to the Tree Services Division.
- c) Replacement trees shall be at least of 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.
- d) Minimum planting areas must be available on site as follows:
 - i. For *Sequoia sempervirens*, three hundred fifteen square feet per tree;
 - ii. For all other species listed in #2 above, seven hundred (700) square feet per tree.
- e) In the event that replacement trees are required but cannot be planted due to site constraints, an in lieu fee as determined by the master fee schedule of the city may be substituted for required replacement plantings, with all such revenues applied toward tree planting in city parks, streets and medians.
- f) Plantings shall be installed prior to the issuance of a final inspection of the building permit, subject to seasonal constraints, and shall be maintained by the project applicant until established. The Tree Reviewer of the Tree Division of the Public Works Agency may require a landscape plan showing the replacement planting and the method of irrigation. Any replacement planting which fails to become established within one year of planting shall be replanted at the project applicant's expense.

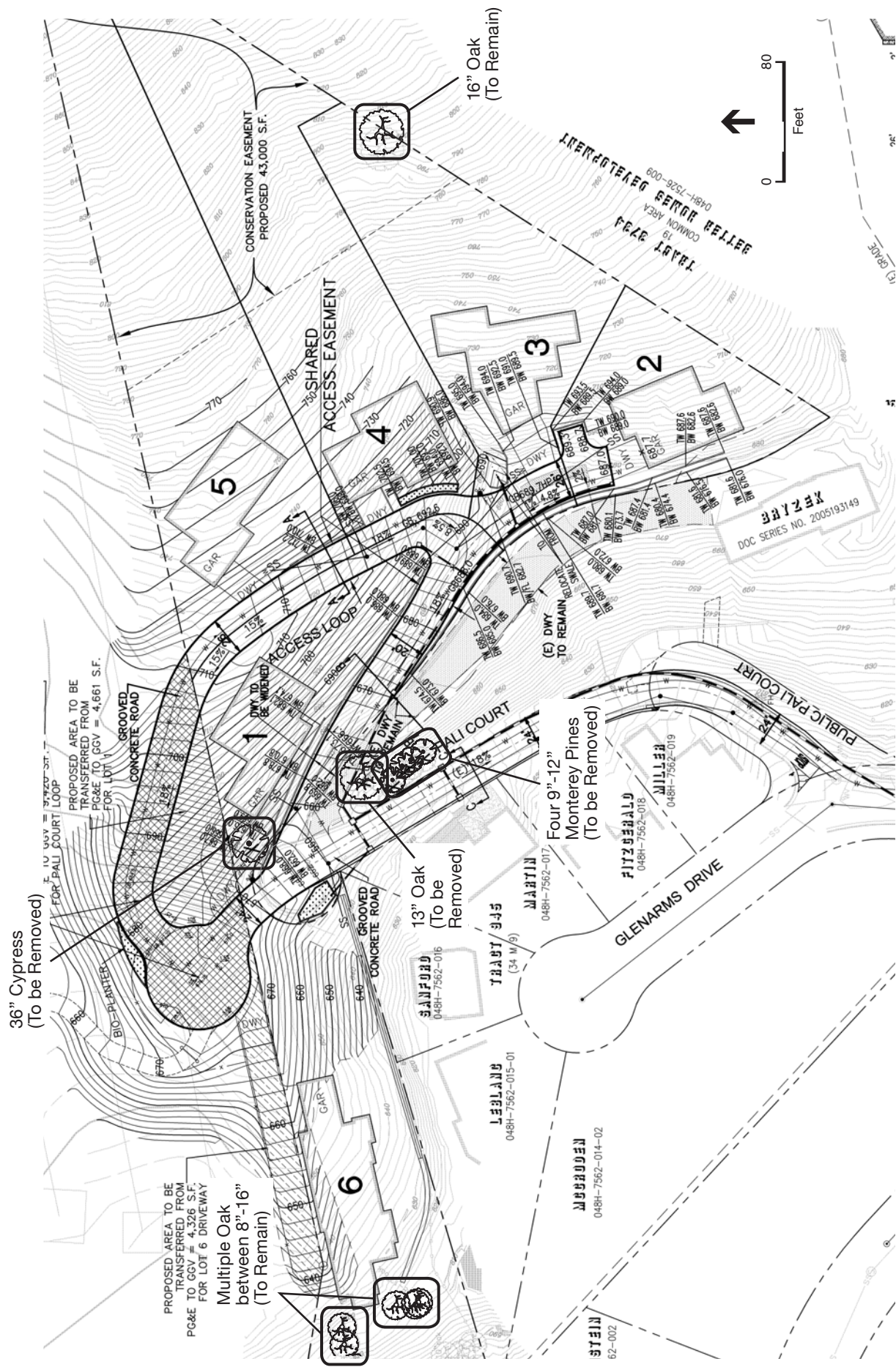


Figure 3 Impacts to Existing Trees

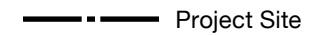
One protected live oak tree (dbh = 16") is present within lot No. 3, but it is not scheduled for removal. A grove of protected live oak trees (dbh's ranging from 8-30") is also present to the west and downslope of the proposed home on lot No. 6 (See **Figure 4**). No trees within this grove are scheduled for removal. The preliminary footprint for the proposed dwelling on lot No. 6 (as shown on **Figure 3**) indicates that construction activities may occur in the vicinity of these protected trees. Work conducted within the dripline of a tree can damage its root system and weaken the tree.

Implementation of the following standard condition (which applies to all protected trees within ten feet of construction activity) would reduce impacts to the protected trees on lot No. 6 to a less than significant level:

STANDARD CONDITION BIO-3: *Prior to issuance of a demolition, grading or building permit. Adequate protection shall be provided during the construction period for any trees which are to remain standing, including the following, plus any recommendations of an arborist:*

1. 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 City Tree Reviewer. 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 which will avoid injury to any protected tree.
2. 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 City Tree Reviewer 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.
3. 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 Tree Reviewer 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 tree reviewer. 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.

4. 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.
 5. 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 Agency of such damage. 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.
 6. 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.
- g) As discussed above under item c), a topographic swale-like feature exists on the project site that was determined by the City of Oakland to be a creek. This feature extends up the hill from a driveway to an off-site home. Scouring is present within the feature but no wetland vegetation is present. The feature likely experiences ephemeral flows that are picked up by a concrete pipe located adjacent to the driveway. Oakland's Creek Protection Ordinance (*Oakland Municipal Code*, Title 13, Chapter 13.16.120) referred to in the significance threshold, requires a Creek Protection Permit for construction that will take place within close proximity to a creek, as defined in the Ordinance. Because the proposed project may result in a potentially significant impact to the creek, this topic will be fully analyzed in the EIR.



— Pali Court . 207330

Figure 4
Oak Grove
(To Remain)

References

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V. Cultural Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant with Standard Condition of Approval</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
5. CULTURAL RESOURCES— Would the project:					
a) Cause a substantial adverse change in the significance of a 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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant with Standard Condition of Approval	Less Than Significant Impact	No Impact
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 <u>and</u> 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)?					
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

- a) The project site consists of undeveloped land with no existing structures. There are no historical resources on the project site or nearby that would be impacted by the proposed project. Thus, there would be no impact.
- b) The project site may contain unidentified, buried archaeological resources. Buried archaeological remains such as prehistoric midden deposits, flaked and ground stone artifacts, bone, shell, building foundations and walls, and other buried cultural resource materials could be damaged during excavation and other construction related activities. Therefore, the potential exists for disturbance of archaeological resources which could cause substantial adverse change to the significance of such resources, thereby resulting in a significant impact. Implementation of this standard condition would reduce the impact from potential discovery of subsurface cultural resources to less than significant.

STANDARD CONDITION CUL-1: *Ongoing throughout demolition, grading, and/or construction.* Pursuant to CEQA Guidelines section 15064.5 (f), "provisions for historical or unique archaeological resources accidentally discovered during construction" should be instituted. Therefore, in the event that any prehistoric or

historic subsurface cultural resources are discovered during ground disturbing activities, all work within 50 feet of the resources shall be halted and the project applicant and/or lead agency shall consult with a qualified archaeologist or paleontologist to assess the significance of the find. If any find is determined to be significant, representatives of the project proponent and/or lead agency and the qualified archaeologist would meet to determine the appropriate avoidance measures or other appropriate measure, with the ultimate determination to be made by the City of Oakland. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and a report prepared by the qualified archaeologist according to current professional standards.

In considering any suggested measure proposed by the consulting archaeologist in order to mitigate impacts to historical resources or unique archaeological resources, the project applicant shall determine whether avoidance is necessary and feasible in light 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) shall be instituted. Work may proceed on other parts of the project site while measure for historical resources or unique archaeological resources is carried out.

Should an archaeological artifact or feature be discovered on-site during project construction, all activities within a 50-foot radius of the find would be halted until the findings can be fully investigated by a qualified archaeologist to evaluate the find and assess the significance of the find according to the CEQA definition of a historical or unique archaeological resource. If the deposit is determined to be significant, the project applicant and the qualified archaeologist shall meet to determine the appropriate avoidance measures or other appropriate measure, subject to approval by the City of Oakland, which shall assure implementation of appropriate measure measures recommended by the archaeologist. Should archaeologically-significant materials be recovered, the qualified archaeologist would recommend appropriate analysis and treatment, and would prepare a report on the findings for submittal to the Northwest Information Center.

- c) Paleontologic resources are the fossilized evidence of past life found in the geologic record. Despite the tremendous volume of sedimentary rock deposits preserved worldwide, and the enormous number of organisms that have lived through time, preservation of plant or animal remains as fossils is an extremely rare occurrence. Because of the infrequency of fossil preservation, fossils – particularly vertebrate fossils – are considered to be nonrenewable resources. Because of their rarity, and the scientific information they can provide, fossils are highly significant records of ancient life.

Significant fossil discoveries can be made even in areas of supposed low sensitivity, and could result from the excavation activities related to the proposed project, resulting in a significant effect, and implementation of this standard condition would reduce the impact from potential discovery of paleontological resources to less than significant.

STANDARD CONDITION CUL-2: *Ongoing throughout demolition, grading, and/or construction.* In the event of an unanticipated discovery of a paleontological resource during construction, excavations within 50 feet of the find shall be temporarily halted or diverted until the discovery is examined by a qualified paleontologist (per Society of Vertebrate Paleontology standards (SVP 1995,1996)). The qualified paleontologist shall document the discovery as needed, evaluate the potential resource, and assess the significance of the find. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. If the City determines that avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of the project on the qualities that make the resource important, and such plan shall be implemented. The plan shall be submitted to the City for review and approval.

- d) No evidence exists to indicate that burials or any large prehistoric or historic occupation existed within the project area. Thus, while it is unlikely that human remains would be encountered during project construction, the potential exists. In the event of the accidental discovery of any human remains, including those interred outside of formal cemeteries, during project construction, the project would be required to implement and comply with the following standard condition of approval. Implementation of this standard condition would reduce the impact from accidental discovery of human remains to less than significant.

STANDARD CONDITION CUL-3: *Ongoing throughout demolition, grading, and/or construction.* In the event that human skeletal remains are uncovered at the project site during construction or ground-breaking activities, all work shall immediately halt and the Alameda County Coroner shall be contacted to evaluate the remains, and following the procedures and protocols pursuant to Section 15064.5 (e)(1) of the CEQA Guidelines. If the County Coroner determines 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 Health and Safety Code, and all excavation and site preparation activities shall cease within a 50-foot radius of the find until appropriate arrangements are made. 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.

References

City of Oakland, *Oakland General Plan, Historic Preservation, An Element of the Oakland General Plan*, updated 2005.

VI. Geology and Soils

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant with Standard Condition of Approval</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
6. GEOLOGY AND SOILS—Would the project:					
a) Expose people or structures to substantial risk of loss, injury, or death involving:					
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map or Seismic Hazards Map issued by the State Geologist for the area or based on other substantial evidence of a known fault (refer to Division of Mines and Geology Special Publications 42 and 117 and PRC Section 2690 et. Seq.)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction, lateral spreading, subsidence, collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil, creating substantial risks to life, property, or creek/waterways?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as it may be revised), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) 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"/>	<input checked="" type="checkbox"/>
e) 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"/>	<input checked="" type="checkbox"/>
f) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

- a.i) The geotechnical report prepared for the proposed project (Earth Science Consultants, 2002) and the Alquist-Priolo Fault Rupture Hazards Zone Map (formerly named the Special Study Zones Map) provided information regarding the location of the project site relative to the nearest active fault. The project site is not located within an Alquist-Priolo Fault Rupture Hazard Zone, as designated by the Alquist-Priolo Earthquake Fault Zoning Act² (CGS, 1982). The Hayward Fault is situated approximately 850 feet down-slope and west of the lowest most western portion of the property. No active faults are known to pass through the immediate project region (CGS, 1982)³. Although fault rupture is not necessarily bound by the limits of a fault rupture hazard zone, ground displacement is most commonly seen along traces of active faults during major earthquakes that result in observable offsets. Because the site is not located on an active or potentially active fault, the potential for surface fault rupture is low and the impact is considered less than significant.
- a.ii) The project site is located in the San Francisco Bay Area, a seismically active region of California with numerous active faults. Seismic activity in the region is dominated by the San Andreas Fault system, which includes the San Andreas, Hayward, and Calaveras faults. According to the U.S. Geological Survey (USGS) Working Group on Earthquake Probabilities (2003), the probability of one or more earthquakes of Richter magnitude 6.7 or higher occurring in the San Francisco Bay Area for the 30-year period from 2003 to 2032 is 62 percent. Of the Bay Area faults, the Hayward and San Andreas faults are the most likely to experience a major earthquake. The probability large Hayward Fault earthquake, occurring in the vicinity of the project site during the 30-year period, is 27 percent; the probability for an earthquake on the San Andreas Fault 21 percent. In the event of a major earthquake on one of these faults, especially the Hayward Fault (due to its proximity to the project site), the project site would experience substantial ground shaking. The Association of Bay Area Governments (ABAG) has developed Earthquake Shaking Hazard Maps, which predict the potential for ground shaking during major earthquakes on the active fault in the Bay Area. The Shaking Hazard Maps rank degrees of ground shaking intensity based on the Modified Mercalli Intensity (MMI) scale. The MMI scale, originally developed by G. Mercalli in 1902, is commonly used to measure earthquake effects due to ground shaking. It is a useful scale because it describes ground motion in terms of effects observed by people in various type structures during past earthquakes. The MM values for intensities range from MM-I (earthquake not felt by people), through more common, moderate earthquakes at MMI-VI to major catastrophic events at MMI-XII (damage nearly total)⁴. This analysis considered an earthquake on the northern segment of the Hayward

² Alquist-Priolo Zones designate areas most likely to experience fault rupture, although surface fault rupture is not necessarily restricted to those specifically zoned areas.

³ Active faults are defined as those faults which show evidence of movement within the last 11,000 years (Holocene); potentially active faults are defined as those that have shown evidence of surface displacement over the last 1.6 million years (Quaternary) (Hart, Bryant, 1997).

⁴ Intensities ranging from IV to X could cause moderate to significant structural damage. The damage level represents the estimated overall level of damage that will occur for various MM intensity levels. Some buildings will experience substantially more damage than this overall level, and others will experience substantially less damage.

Fault to assess maximum possible ground shaking effects at the project site. Because the site is close to the Hayward Fault, the ground shaking intensity could range from very strong (MMI-VIII moderate damage) to very violent (MMI-X, extreme damage (ABAG, 2007)).

Although ground shaking at the subject site would be substantial during a large earthquake on the Hayward Fault and could be considerable during an earthquake on other Bay Area faults, compliance with the California Building Code, and building code requirement set forth by the City of Oakland, would reduce the seismic hazard so that people would not be exposed to substantial injury and death or property would not undergo significant loss. While building codes assume that some damage will occur during an earthquake, they are designed to prevent loss of life and limb and reduce the potential of structural collapse. The 1997 Uniform Building Code (UBC) locates the entire Bay Area within Seismic Risk Zone 4. Of the four seismic zones, Zone 4 is expected to experience the greatest effects from earthquake ground shaking and, therefore, has the most stringent requirements for seismic design. The proposed project would be required to comply with the geotechnical and seismic design criteria required for construction in Zone 4 of the UBC and California Building Code (Title 24). Furthermore, the project sponsor would be required to submit an engineering analysis accompanied by detailed engineering drawings to the City of Oakland Building Services Division prior to excavation, grading, or construction activities on the site. This is consistent with standard City of Oakland practices to ensure that all buildings are designed and built in conformance with the seismic requirements of the City of Oakland Building Code. The required engineering analysis includes drawings and details of relevant grading and/or construction activities on the project site to address constraints and ensure the recommendations identified in the geotechnical investigation are implemented. These required submittals ensure that buildings are designed and constructed in conformance with the requirements of all applicable building code regulations, pursuant to standard City procedures. Compliance with building codes provisions for structural design and construction in high earthquake hazard areas would ensure that ground shaking effects at the project site remain less than significant.

- a.iii) Seismic shaking can also trigger secondary ground-failures caused by liquefaction. Liquefaction is the process by which saturated granular soils, such as sands, behave like a dense fluid when subjected to prolonged shaking during an earthquake. Seismic hazard mapping prepared by the Association of Bay Area Governments (ABAG, 2007), indicates that the project site is located in a designated low risk Seismic Hazard Zone for liquefaction. This is consistent with the understanding of the underlying soil materials at the site; the site is underlain by sandy silt, over shallow (approximately 5 feet deep) siltstone/sandstone bedrock and no free groundwater was observed in the test holes. Sand and silt mixtures are typically not liquefiable especially with shallow bedrock and no groundwater. Given the conditions at the site, the potential is low for liquefaction and secondary ground failures associated with liquefaction and therefore, the impact is less than significant.

Not all buildings perform identically in an earthquake. The age, material, type, method of construction, size, and shape of a building all affect its performance (ABAG, 1998a).

Strong seismic shaking can accelerate and accentuate settlement in dry granular soils, such as those at the project site. During an earthquake, settlement can occur as a result of the relatively rapid compaction and settling of subsurface materials (particularly loose, uncompacted, and variable sandy sediments above the water table) due to the rearrangement of soil particles during prolonged ground shaking. Settlement can occur both uniformly and differentially (i.e., where adjoining areas settle at different amounts), also referred to as differential settlement. Areas underlain by artificial fill would be susceptible to this type of settlement. However, given the degree of necessary site grading, compaction requirements, and the proposed use of pier foundations, in addition to other recommendations provided by the geotechnical engineer to alleviate geologic hazards, the risk of settlement and differential settlement would be less than significant.

- a.iv) The project geotechnical investigation determined that the steep hillside terrain upslope of the proposed extension of Pali Court and proposed access easement is susceptible to earthquake induced landslides according to the State of California Seismic Hazard Zone Map (Oakland East Quadrangle, California Division of Mines and Geology, 2000). This map indicates that approximately 70 percent of the hillside terrain between Highway 13 and the top of the Oakland Hills in the greater Montclair area to the east of the site is susceptible to earthquake induced landslides. In addition, the City of Oakland has indicated that there is evidence of recent slope failure within the project vicinity which occurred subsequent to local grading work. Because the proposed project may result in a potentially significant impact due to landslides, this topic will be fully analyzed in the EIR.
- b) Project construction would include grading and earthmoving activities that could expose site soils and the existing creek to the erosive forces of heavy winds, rainfall, or runoff resulting in a potentially significant impact. This topic will be fully analyzed in the EIR.
- c) Geotechnical investigations report most of the natural hillside terrain, outside of previous filled areas, consists of 3 to 6 feet of sandy silt soil materials underlain by sandstone and siltstone bedrock materials. Expansive soils are generally clayey soils that swell when wetted and shrink when dried. Expansive soils located beneath structures can result in cracks in foundations, walls, and floors. The onsite soils consist of silt and sand mixtures with rock fragments, which contain minimal amounts of clay; these soils, therefore are not considered expansive, and impacts associated with expansive soils are considered less than significant.
- d) and e)

The project site is located in a partially developed residential area of the Oakland Hills overlying shallow soil and bedrock. Some fills may exist but are related to former grading of the driveways and existing construction. Geotechnical investigations for this project have identified native and reworked fill material; no fills with unknown origins have been encountered. Wells, pits, vaults or sewer lines from previous site uses are not present based on previous subsurface investigation. There are no landfills in this vicinity. Therefore, the

project would not create substantial risks to life and property due to proximity to the above conditions.

- f) The proposed project does not include the installation of septic tanks or alternative wastewater disposal systems. The proposed project is located in an urban area and would be required to connect to the existing central sewer system, which provides wastewater collection service for the City of Oakland. Therefore, the project would not require septic tanks or alternative wastewater disposal systems and the project would have no impact on such conditions.

References

- Alquist-Priolo Fault Rupture Hazard Zone (Oakland East quadrangle, California Division of Mines and Geology). 1982.
- Association of Bay Area Governments (ABAG), Shaking Hazard Maps for Alameda County, available online at <<http://www.abag.ca.gov/bayarea/eqmaps/pickcity.html>>, Accessed August 2007.
- California Department of Conservation, Geological Survey, State of California, Seismic Hazard Zones, Oakland East Quadrangle. February 2003.
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- Earth Science Consultants, *Geotechnical Investigation, Proposed 15 Lot Subdivision, Tentative Tract Map 7411, End of Pali Court, Glen Arms Drive Area, Oakland Hills*. Oakland California. October 30, 2002
- Hart, E.W., Bryant, W.A., Fault Rupture Hazard in California – Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Fault Zones Maps, Special Publication 42, California Geological Survey, Revised 1997, Supplements 1 and 2 added 1997.
- U.S. Geological Society (USGS), Working Group on California Earthquake Probabilities, Summary of Earthquake Probabilities in the San Francisco Bay Region: 2003-2032, 2003, available online at <http://quake.wr.usgs.gov/research/seismology/wg02/>

VII. Hazards and Hazardous Materials

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant with Standard Condition of Approval</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
7. HAZARDS AND HAZARDOUS MATERIALS—Would the project:					
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant with Standard Condition of Approval</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
b) 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) 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 safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be located within the vicinity of a private airstrip, and would result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

a) – c)

The project would not involve the transport, use, storage, or disposal of hazardous materials, other than routine use of minor quantities of household cleaning products and, potentially, pesticides and fertilizers for care of on-site landscaping. Also, the project would not produce emissions other than from natural gas for space and water heating. These materials and emissions would not pose a significant hazard to the public. Use of hazardous materials

routinely used during construction activities could potentially result in a significant hazard. Implementation of the following standard condition of approval during construction activities would result in a less than significant impact:

STANDARD CONDITION HAZ-1: *Prior to commencement of demolition, grading, or construction.* The project applicant and construction contractor shall ensure that construction Best Management Practices (BMPs) are implemented as part of construction to minimize the potential negative effects to groundwater and soils. These shall include the following:

- Follow manufacture's recommendations on use, storage, and disposal of chemical products used in construction;
- Avoid overtopping construction equipment fuel gas tanks;
- During routine maintenance of construction equipment, properly contain and remove grease and oils;
- Properly dispose of discarded containers of fuels and other chemicals.
- Ensure that construction would not have a significant impact on the environment or pose a substantial health risk to construction workers and the occupants of the proposed development. Soil sampling and chemical analyses of samples shall be performed to determine the extent of potential contamination beneath all UST's, elevator shafts, clarifiers, and subsurface hydraulic lifts when on-site demolition, or construction activities would potentially affect a particular development or building.
- 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 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 notification of 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.

Three electrical transmission towers and high tension utility lines owned and operated by PG&E are located on an adjacent parcel to the north of the project site. The closest tower and line to the project site is approximately 50 to 60 feet north of Lots No. 1, 5, and 6. Transmission lines are sources of electric and magnetic fields (EMF), which are fields of force created by electric charges. Electric fields result from the strength of the electrical charges, or the voltage, while magnetic fields result from the motion of the charge, or the current. Electric fields are easily shielded: they may be weakened, distorted, or blocked by

conducting objects such as earth, trees, and buildings, but magnetic fields are not as easily blocked. Sources of EMF include natural phenomenon such as lightning and static electricity. Man-made sources of EMF include internal wiring in buildings, electrical appliances such as computers and televisions, and powerlines.

Concerns have been raised by the public and the scientific community regarding the possible health effects from EMF. In 1998, a working group of experts gathered by the federal EMF-Research and Public Information Dissemination (EMF-RAPID) program reviewed the possible health risks associated with EMF. A majority felt that the epidemiology studies of childhood leukemia provided enough evidence to classify EMF as a “possible human carcinogen.” However, at the conclusion of the EMF-RAPID Program in 1999, the National Institute of Environmental Health Sciences (NIEHS) reported that the overall scientific evidence for human health risk from EMF exposure was weak.

In California, the Public Utilities Commission (CPUC) authorized a statewide research, education, and technical assistance program on the health aspects of exposure to EMF to be managed by the Department of Health Services (DHS). In 1993, the CPUC established EMF policy for California’s regulated electric utilities, which includes PG&E. The CPUC acknowledged that scientific research had not demonstrated that exposure to EMF causes health hazards and that it was inappropriate to set numeric standards that would limit exposure. In 2006, the CPUC re-affirmed this conclusion by stating: “...at this time we are unable to determine whether there is a significant scientifically verifiable relationship between EMF exposure and negative health consequences.” Among the “Findings of Fact” listed in this determination (Decision 06-01-042), was the CPUC’s finding that, “... a direct link between exposure to EMF and human health effects has yet to be proven despite numerous studies including a study ordered by this Commission and conducted by DHS.”

There are no applicable federal or state regulations related to EMF levels from powerlines and there are no limits on the level of EMF in residences or the amount to which a person can be exposed. Currently, the only relevant state regulation in California requires that new schools be constructed at a minimum distance from transmission lines. This regulation does not apply to existing schools that are near powerlines, and is not based on any evidence that the setback might decrease health risks. Finally, there is no defined or adopted CEQA standard for defining health risk from EMF. Therefore, the potential impact due to exposure to EMF on the project site is considered less than significant.

- d) The project site consists of a steeply sloped, undeveloped area in the Oakland Hills. According to the California Department of Toxic Substances Control, EnviroStor database, the project site is not included on a list of hazardous materials sites; therefore, the impact is considered less than significant.

e) and f)

The project is not located within two miles of a public airport, and there are no private airstrips in the vicinity. The closest public airport is the Oakland International Airport located

approximately eight miles south of the project site. Therefore, the project would not result in any significant safety hazards for people residing or working in the project area.

- g) The proposed project could potentially interfere with emergency response plans or evacuation plans, based on the City of Oakland's Multi-Hazard Functional Plan, ("City Emergency Plan"). Regarding overall emergency access and service, the Oakland Fire Department has identified the area as having inadequate available fire flow and constrained fire crew and fire apparatus access. Pali Court is the existing public street which extends from Mountain Boulevard and terminates in a dead end approximately 390 feet from Mountain Boulevard. The proposal would include the extension of Pali Court for an additional 395 feet to serve the proposed lots. The total length of the extended public street resulting in a dead end would be approximately 785 feet. A new Private Access Easement (PAE) would extend from two portions of the extended Pali Court and create a "loop road" of approximately 750 feet in length to serve a total of six lots (five to be created by the project sponsor and one existing lot currently owned and occupied by another private party). One lot, No. 6, would be served solely by the extended Pali Court. The proposed street extension and loop road PAE would extend beyond the 600-foot limit established by the Oakland Municipal Code and would result in less than two emergency access routes. The first entry point into the proposed PAE would be located approximately 600 feet from Mountain Boulevard, so that all properties located on the dead end street in excess of 600 feet would have an **alternative** secondary means of egress/access through the loop road rather than a secondary access road. This potentially significant impact will be fully analyzed in the EIR.
- h) The project site is located in the Oakland Hills and within the City's Wildfire Assessment District, an area that could potentially expose people and structures to significant risk of loss, injury, or death involving wildland fires. This potentially significant impact will be fully analyzed in the EIR.

References

- California Department of Health Services, California Electric and Magnetic Fields Program, *Electric and Magnetic Fields*, December, 2000.
- California Department of Toxic Substances Control, Site Mitigation and Brownfields Reuse Program, EnviroStor database, www.envirostor.dtsc.ca.gov/public/default.asp, site accessed August 21, 2007.
- California Public Utilities Commission (CPUC), Decision 06-01-042, Opinion on Commission Policies Addressing Electromagnetic Fields Emanating from Regulated Utility Facilities, January 26, 2006.
- CPUC, *EMF Design Guidelines for Electrical Facilities*, July 21, 2006.
- City of Oakland, Fire Department, Fire Prevention Bureau, Annual Vegetation Management Plan for the Wildfire Prevention Assessment District, 2006.
- City of Oakland, *Safety Element*, adopted November 2004.
- National Institute of Environmental Health Sciences (NIEHS), EMF RAPID Program, *Electric and Magnetic Fields Associated with the Use of Electric Power*, June 2002.

VIII. Hydrology and Water Quality

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant with Standard Conditions of Approval</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
8. HYDROLOGY AND WATER QUALITY—Would the project:					
a) Violate any water quality standards or waste discharge requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (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"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in substantial erosion or siltation on- or off-site that would affect the quality of receiving waters?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in substantial flooding on- or off-site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute substantial runoff which would exceed the capacity of existing or planned stormwater drainage systems?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Create or contribute substantial runoff which would be an additional source of polluted runoff?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Otherwise substantially degrade water quality?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) 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"/>	<input checked="" type="checkbox"/>
i) 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"/>	<input checked="" type="checkbox"/>

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant with Standard Conditions of Approval</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
j) 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"/>	<input checked="" type="checkbox"/>
k) Result in inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
l) 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m) Fundamentally conflict with elements of the City of Oakland Creek Protection (OMC Chapter 13.16) ordinance intended to protect hydrologic resources. 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?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

- a) Hazardous materials associated with construction activities are likely to involve minor quantities of paint, solvents, oil and grease, and petroleum hydrocarbons. Following the completion of construction activities, the application of pesticides and herbicides related to landscape maintenance are potential sources of polluted stormwater runoff. As discussed in Section IV, Biological Resources, a topographic swale-like feature exists on the project site that was determined by the City of Oakland to be a creek. Because the proposed project may impact this creek and degrade water quality, this potentially significant impact will be fully analyzed in the EIR.
- b) The project would be connected to the City's water supply system. The domestic potable water supply for the City of Oakland and the proposed project area is not provided by groundwater sources, but rather from surface water sources maintained by the East Bay

Municipal Utility District (EBMUD). Because groundwater would not be used to supply water for the project, there would be no impact on the East Bay Plain aquifer volume or regional groundwater levels. No impact to groundwater sources would occur.

c) – g) and l)

The proposed project would result in additional impervious surfaces that would alter the existing drainage pattern. As discussed in Section IV, Biological Resources, a topographic swale-like feature exists on the project site that was determined by the City of Oakland to be a creek. Because the proposed project may alter the existing drainage pattern on the site, contribute to erosion, or otherwise degrade water quality, this potentially significant impact will be fully analyzed in the EIR.

h) – k)

The proposed project site is located in Zone C, as shown on the Federal Emergency Management Agency Flood Insurance Rate Map (FIRM) No. 0650480020B, September 30, 1982. This zone is located in neither a 100-year nor in a 500-year flood boundary and is therefore considered a zone at minimal risk for flooding hazards. Therefore, the project would not result in significant impacts by exposing people or structures to risk of flooding.

m) As discussed in Section IV, Biological Resources, a topographic swale-like feature exists on the project site that was determined by the City of Oakland to be a creek. The proposed project may conflict with the elements of the Creek Protection Ordinance; this topic will be fully analyzed in the EIR.

References

Federal Emergency Management Administration, Flood Insurance Rate Map, 0650480020B, September 30, 1982.

City of Oakland, Public Works Agency. Guide to Oakland's Creek Protection Ordinance. Available online: <http://www.oaklandpw.com/Page155.aspx#what>, 2003. Accessed July 23, 2007.

IX. Land Use and Planning

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant with Standard Conditions of Approval</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
9. LAND USE AND PLANNING— Would the project:					
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant with Standard Conditions of Approval</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
b) Result in a fundamental conflict between adjacent or nearby land uses?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Fundamentally conflict with 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"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) 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"/>	<input checked="" type="checkbox"/>

Discussion

a) and b)

The project site is located adjacent to existing residential neighborhoods, and the northern border of the site abuts vacant land owned by Pacific Gas and Electric (PG&E). Access to the site would be provided by extension of an existing cul-de-sac street, Pali Court. Construction of the six single-family homes on new, individual lots would continue the pattern of residential development in the vicinity of the project site. The project would not divide the existing community or result in a conflict with nearby land uses.

- c) The Oakland General Plan establishes comprehensive, long-term land use policy for the City. The project site is designated as Hillside Residential by the General Plan Land Use and Transportation Element (LUTE). The Hillside Residential land use designation is intended to allow single unit residential dwellings in the hill areas of Oakland. This designation allows up to five dwelling units per gross acre; 6.67 units per net acre; and 6,530 square feet of site area per unit.

Subdivision lot sizes for the Hillside Residential designation are also regulated by General Plan Policy N7.3, which states: "At least 8,000 square feet of lot area per dwelling unit should be required when land in the hill area is subdivided. Lots smaller than 8,000 square feet may be created only when this ratio is maintained for a parcel being divided." This policy has been interpreted by the City to mean that the average lot size of any subdivision in the Hillside Residential designation cannot be less than 8,000 square feet.⁵ Furthermore, the City

⁵ *Guidelines for Determining Project Conformity With the General Plan and Zoning Regulations*. City of Oakland. Adopted May 6, 1998, Amended July 15, 2003.

has interpreted this policy to mean that, so long as the average lot size is 8,000 square feet or greater, there is not an inconsistency with the General Plan, so the Zoning and Subdivision Regulations would control.⁶

The project site is also within the R-10 Estate Residential zoning district, which is intended for single-family estate uses at very low densities and is typically appropriate in Oakland's hill areas. Each lot in the R-10 district requires a minimum lot area of 25,000 square feet (Oakland Planning Code Section 17.12.090). While the average lot size for the project is 32,198 square feet, Lot 2 is less than 25,000 square feet. However, as long as the total density for the project does not exceed one unit per 25,000 square feet, the minimum lot size can be reduced through a Planned Unit Development (PUD) permit. Therefore, in accordance with Oakland Planning Code Section 17.12.160, the project is seeking approval of a PUD permit to allow for reduced lot sizes and in order to place units without reference to lot lines.

The 4.3-acre project site exceeds the four-acre minimum R-10 district land area requirement for a PUD permit incorporating any bonuses set forth in Oakland Planning Code Section 17.122.100. A PUD permit would allow the project to incorporate the following two bonuses applicable to the project site:

- Distribution of Facilities Without Reference to Lot or Block Line. The overall number of living units and amount of floor area, off-street parking and loading facilities, usable open space, and landscaping and screening may be located within the development without reference to lot lines or blocks, except as otherwise provided in Section 17.122.110(I) and except that required parking spaces serving Residential Activities shall be located within two hundred (200) feet of the building containing the living units served. (Oakland Planning Code Section 17.122.100 (F))
- Waiver or Reduction of Yard and Other Dimensional Requirements. Except as otherwise provided in Section 17.122.110(E), the minimum lot area, width, and frontage; height; and yard requirements otherwise applying may be waived or modified for the purpose of promoting an integrated site plan. (Oakland Planning Code Section 17.122.100 (G))

The PUD permit would allow a maximum density of one dwelling unit per each 25,000 square feet of land area, or approximately seven units for the 4.3 acre project site (Oakland Planning Code Section 17.122.110 (B)).

Section 16.28.010 of the Oakland Subdivision Regulations (Chapter 16 of the OMC), Hillside Subdivisions, applies to subdivided land which has an average difference in elevation of more than 15 feet per 100 horizontal feet. As the project site has a slope of approximately 18 percent, design standards described in Chapter 16.28 of the Subdivision Regulations would also apply to the project.

⁶ *Ibid.*

The project is seeking a variance for public street width requirements. As part of the project, the project sponsor will be working with the Department of Public Works to have all of Pali Court designated as a public street. Local streets must be at least 50 feet in width (Oakland Planning Code Section 16.16.020). In hillside subdivisions, the dedicated widths of all local streets shall be not less than 40 feet. With lot frontage on both sides of the street, the paved roadway widths shall be not less than 30 feet; with lot frontage on one side of the street, only the paved roadway widths shall be not less than 24 feet (Oakland Subdivision Ordinance Section 16.28.040).

Pali Court is the existing public street which extends from Mountain Boulevard and terminates in a dead end approximately 390 feet from Mountain Boulevard. The proposal would include the extension of Pali Court for an additional 395 feet to serve the proposed lots. The total length of the extended public street resulting in a dead end would be approximately 785 feet. The project seeks a variance to the 300-foot maximum dead end street length requirement (Oakland Subdivision Ordinance Section 16.16.150). A new Private Access Easement (PAE) would extend from two portions of the extended Pali Court and create a “loop road” of approximately 750 feet in length to serve a total of six lots (five to be created by the project sponsor and one existing lot currently owned and occupied by another private party). One lot, No. 6, would be served solely by the extended Pali Court. The project also seeks a variance to allow the PAE to serve more than four parcels and extend for more than 300 feet.

In addition, the PAE is considered a shared access facility, requiring a conditional use permit (CUP). To obtain the conditional use permit, the project sponsor has to show compliance with certain public safety and aesthetic issues and compliance with guidelines for development and evaluation of shared access facilities (Oakland Planning Code Section 17.102.090).

Overall, the project seeks approval of the PUD (with excepting bonuses), CUP, and variances that would reduce minimum area and dimensional requirements for lots, streets, and building setbacks. Prior to approval of any variance requests, the City must determine whether the project meets the applicable findings and criteria that would ensure consistency with the Oakland General Plan, the Oakland Planning Code and Subdivision Regulations, and all other applicable requirements of the Oakland Municipal Code. While the project as proposed may have potential physical environmental impacts, all of which will be further studied in the EIR, none of these potential impacts would be caused due to a fundamental conflict with any land use plan, policy, or regulation. Therefore, the impact would be less than significant.

- d) The project site is not located in an area governed by a habitat conservation plan or natural community plan; therefore, no conflict would result.

References

City of Oakland, *Oakland General Plan, Land Use and Transportation (LUTE) Element*, June 1998, as amended.

City of Oakland. Municipal Code.

City of Oakland, *Guidelines for Determining Project Conformity With the General Plan and Zoning Regulations*, July 15, 2003.

Project Plans, 2009.

ESA, Site Visit, 2007.

X. Mineral Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant with Standard Conditions of Approval</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
10. MINERAL RESOURCES— Would the project:					
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

- a) – b) The project site has no known existing mineral resources. The project would not require quarrying, mining, dredging, or extraction of locally important mineral resources on site, nor would it deplete any nonrenewable natural resource. Therefore, the project would not impact any mineral resources.

References

City of Oakland, *Oakland General Plan, Open Space, Conservation and Recreation Element*, June 1996.

Project Plans, 2009.

XI. Noise

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant with Standard Conditions of Approval</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
11. NOISE—Would the project:					
a) Exposure of persons to or generate noise levels in excess of standards established in the Oakland general plan or applicable standards of other agencies (e.g., OSHA)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate 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"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Violate the City of Oakland Noise Ordinance (Oakland Planning Code Section 17.120.050) regarding construction noise, except if an acoustical analysis is performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Violates the City of Oakland Noise Ordinance (Oakland Municipal Code Section 8.18.020) regarding nuisance of persistent construction-related noise?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create a vibration not associated with motor vehicles, trains, and temporary construction or demolition work, which is perceptible without instruments by the average person at or beyond any lot line containing vibration-causing activities located within the (a) M-40 zone or (b) M-30 zone more than 400 feet from any legally occupied residential property (Oakland Planning Code Section 17.120.060)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Expose persons to or generate rail-related groundborne vibration in excess of standards established by the Federal Transit Administration?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Generate interior Ldn 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Result in a 5dBA permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant with Standard Conditions of Approval</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
i) Conflicts with state land use compatibility guidelines for all specified land uses for determination of acceptability of noise after incorporation of all applicable Standard Conditions of Approval?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j) 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"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
k) 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"/>	<input checked="" type="checkbox"/>

Discussion

- a) The Noise Element of the *Oakland General Plan* contains guidelines for determining the compatibility of various land uses with a range of ambient noise levels given that some land uses are more sensitive to noise than others. The City of Oakland uses a version of the noise guidelines established by the California Department of Health Services to judge the compatibility between various land uses and their noise environments. For residential uses such as the proposed project, noise levels of up to 60 dBA Ldn are “normally acceptable” and levels between 60 and 70 dBA Ldn are “conditionally acceptable.” Under “normally acceptable” conditions, development may occur without any analysis of potential noise impacts to the proposed development. Under “conditionally acceptable” conditions, an analysis of noise-reduction requirements is required and any necessary noise-mitigating features must be included in the design. In general, conventional construction will usually suffice as long as it incorporates air conditioning or forced fresh-air-supply systems.

Future residents of the project site would be exposed to the surrounding ambient noise environment. As a means of determining the noise environment at the project site, noise levels were monitored during a 24-hour period. Monitoring data indicated an Ldn of 55.8 dBA at the project site. This noise environment would be considered “normally acceptable” for residential uses. Therefore, the proposed project would not expose persons to noise levels in excess of standards established in the *Oakland General Plan*.

- b) and h)

City of Oakland Noise Ordinance (OMC 17.120.050) establishes noise level standards for residential land uses. Noise generated by the project would be primarily the result of increased auto traffic. Generally, traffic must double in volume to produce a noticeable permanent increase in noise levels. As described in Section IV, Transportation and Traffic,

the project would generate about fourteen vehicle trips in the p.m. peak hour, which is not likely to result in a doubling of traffic volumes on any street as a result of the project. Therefore, resulting total noise levels generated by the project or total traffic would not be substantial. Therefore, traffic noise impacts would be less than significant.

c) and d)

Construction activities would intermittently and temporarily generate noise levels above existing ambient levels in the project vicinity. During the construction period, a wide variety of construction and demolition equipment would be used, and material would be transported to and from the site by truck. These activities would intermittently and temporarily increase ambient noise levels in the project vicinity over the duration of construction. Construction-related noise levels at and near locations on the project site would fluctuate depending on the particular type, number, and duration of use of various pieces of construction equipment. The effect of construction noise would depend upon the level of construction activity on a given day and the related noise generated by that activity, the distance between construction activities and the nearest noise-sensitive uses, and the existing noise levels at those uses.

As would be required for all construction projects in Oakland, the project shall implement and comply with the following standard conditions throughout the duration of construction activity:

STANDARD CONDITION NOI-1: *Ongoing throughout demolition, grading, and/or construction.* The project applicant shall require construction contractors to limit standard construction activities as follows:

- a) Construction activities are limited to between 7:00 AM and 7:00 PM Monday through Friday, except that pile driving 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. Monday through Friday.
- b) Any construction activity proposed to occur outside of the standard hours of 7:00 am to 7:00 pm Monday through Friday for special activities (such as concrete pouring which may require more continuous amounts of time) shall be evaluated on a case by case basis, with criteria including the proximity of residential uses and a consideration of resident's preferences for whether the activity is acceptable if the overall duration of construction is shortened and such construction activities shall only be allowed with the prior written authorization of the Building Services Division.
- c) Construction activity shall not occur on Saturdays, with the following possible exceptions:
 - Prior to the building being enclosed, requests for Saturday construction for special activities (such as concrete pouring which may require more continuous amounts of time), shall be evaluated on a case by case basis, with criteria including the proximity of residential uses and a consideration of resident's preferences for whether the activity is acceptable if the overall

duration of construction is shortened. Such construction activities shall only be allowed on Saturdays with the prior written authorization of the Building Services Division.

- After the building is enclosed, requests for Saturday construction activities shall only be allowed on Saturdays with the prior written authorization of the Building Services Division, and only then within the interior of the building with the doors and windows closed.
- d) No extreme noise generating activities (greater than 90 dBA) shall be allowed on Saturdays, with no exceptions.
- e) No construction activity shall take place on Sundays or Federal holidays.
- f) 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.
- g) Applicant shall use temporary power poles instead of generators where feasible.

STANDARD CONDITION NOI-2: *Ongoing throughout demolition, grading, and/or construction.* To reduce noise impacts due to construction, the project applicant shall require construction contractors to implement a site-specific noise reduction program, subject to the Planning and Zoning Division and the Building Services Division review and approval, which includes the following measures:

- 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 wherever possible 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) Stationary noise sources shall be located as far from adjacent receptors 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 noise reduction.
- d) 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.

STANDARD CONDITION NOI-3: *Ongoing throughout demolition, grading, and/or construction.* Prior to the issuance of each building permit, along with the submission of construction documents, the project applicant shall submit to the Building Services Division a list of measures to respond to and track complaints pertaining to construction noise. These measures shall include:

- a) A procedure and phone numbers for notifying the Building Services Division staff and Oakland Police Department; (during regular construction hours and off-hours);
- b) A sign posted on-site pertaining with permitted construction days and hours and complaint procedures and who to notify in the event of a problem. The sign shall also include a listing of both the City and construction contractor's telephone numbers (during regular construction hours and off-hours);
- c) The designation of an on-site construction complaint and enforcement manager for the project;
- d) Notification of neighbors and occupants within 300 feet of the project construction area at least 30 days in advance of extreme noise generating activities about the estimated duration of the activity; and
- e) A preconstruction meeting shall be held with the job inspectors and the general contractor/on-site project manager to confirm that noise measures and practices (including construction hours, neighborhood notification, posted signs, etc.) are completed.

STANDARD CONDITION NOI-4: *Ongoing throughout demolition, grading, and/or construction.* To further reduce potential pier drilling, pile driving and/or other extreme noise generating construction impacts greater than 90dBA, a set of site-specific noise attenuation measures shall be completed under the supervision of a qualified acoustical consultant. Prior to commencing construction, a plan for such measures shall be submitted for review and approval by the Planning and Zoning Division and the Building Services Division to ensure that maximum feasible noise attenuation will be achieved. This plan shall be based on the final design of the project. A third-party peer review, paid for by the project applicant, may be required to assist the City in evaluating the feasibility and effectiveness of the noise reduction plan submitted by the project applicant. The criterion for approving the plan shall be a determination that maximum feasible noise attenuation will be achieved. A special inspection deposit is required to ensure compliance with the noise reduction plan. The amount of the deposit shall be determined by the Building Official, and the deposit shall be submitted by the project applicant concurrent with submittal of the noise reduction plan. The noise reduction plan shall include, but not be limited to, an evaluation of the following measures. These attenuation measures shall include as many of the following control strategies as applicable to the site and construction activity:

- a) Erect temporary plywood noise barriers around the construction site, particularly along on sites adjacent to residential buildings;
- b) 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;
- c) Utilize noise control blankets on the building structure as the building is erected to reduce noise emission from the site;
- d) 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 measures if such are feasible and would noticeably reduce noise impacts; and
- e) Monitor the effectiveness of noise attenuation measures by taking noise measurements.

Implementation of the above standard conditions would reduce construction noise levels from the project to the extent feasible, and thus project construction impacts would be considered less than significant.

- e) Project construction activities could result in temporary vibration typical of activities and equipment used for site preparation and construction of residential dwellings. The project does not include any permanent operational activity that would result in excessive or perceptible vibration, and the operational impact of the project on increased vibration levels would be less than significant.
- f) The proposed project would not expose persons to or generate rail-related groundborne vibration in excess of standards established by the Federal Transit Administration.
- g) and i)

As discussed in response to item a), the noise environment of the project site was monitored to be in the “normally acceptable” category for residential land uses as proposed by the project. The project would not result in a noticeable noise increase for any adjacent land use or nearby sensitive land use. In addition, the following standard condition of approval regarding interior noise shall be required:

STANDARD CONDITION NOI-5: *Prior to issuance of a building permit and Certificate of Occupancy.* If necessary to comply with the interior noise requirements of the City of Oakland’s General Plan Noise Element and achieve an acceptable interior noise level, noise reduction in the form of sound-rated assemblies (i.e., windows, exterior doors, and walls) and/or other appropriate features/measures, shall be incorporated into project building design, based upon recommendations of a qualified acoustical engineer and submitted to the Building Services Division for review and approval prior to issuance of building permit. Final recommendations for sound-rated assemblies and/or other appropriate features/measures will depend on the

specific building designs and layout of buildings on the site and shall be determined during the design phase. Written confirmation by the acoustical consultant, HVAC or HERS specialist, shall be submitted for City review and approval, prior to Certificate of Occupancy (or equivalent) that:

- a) Quality control was exercised during construction to ensure all air-gaps and penetrations of the building shell are controlled and sealed; and
- b) Demonstrates compliance with interior noise standards based upon performance testing of a sample unit.
- c) Inclusion of a Statement of Disclosure Notice in the CC&R's on the lease or title to all new tenants or owners of the units acknowledging the noise generating activity and the single event noise occurrences. Potential features/measures to reduce interior noise could include, but are not limited to, the following:
 - 1. Installation of an alternative form of ventilation in all units identified in the acoustical analysis as not being able to meet the interior noise requirements due to adjacency to a noise generating activity, filtration of ambient make-up air in each unit and analysis of ventilation noise if ventilation is included in the recommendations by the acoustical analysis.
 - 2. Prohibition of Z-duct construction.

STANDARD CONDITION NOI-6: *Ongoing.* Noise levels from the activity, property, or any mechanical equipment on site shall comply with the performance standards of Section 17.120 of the Oakland Planning Code and Section 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 Planning and Zoning Division and Building Services.

Implementation of the above standard conditions would reduce interior noise levels from the project to a less than significant level.

j) and k)

The proposed project site is not located within two miles of a public airport, or in the vicinity of a private airstrip. The closest public airport is the Oakland International Airport located approximately eight miles south of the project site. Therefore, the project would not expose persons residing at the project site to excessive noise levels as a result of proximity to an airport or landing strip.

References

City of Oakland, Noise Ordinance, Planning Code Section 17.120.050.

City of Oakland, *Oakland General Plan, Noise Element*, June 2005.

Project Plans, 2009.

XII. Population and Housing

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant with Standard Conditions of Approval</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
12. POPULATION AND HOUSING— Would the project:					
a) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere in excess of that contained in the City's Housing Element?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere in excess of that contained in the City's Housing Element?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

- a) The proposed project would construct six single-family dwelling units in an area designated for residential development by the Oakland General Plan and zoning map. The project would result in additional residents in the project area. Such development is anticipated in the General Plan through designation of the Hillside Residential land use classification on the project site.

According to the Association of Bay Area Governments (ABAG), the City of Oakland's population in 2005 was approximately 416,000. Based on the City projections, population in Oakland is anticipated to increase by approximately 8 percent, to about 450,000, by the Year 2025. The population increase generated by the project's proposed six units is anticipated to

be approximately 16 persons (approximately 2.67 persons per unit). The total population increase generated by the project would be an incremental portion of the anticipated new growth in persons and housing and would not be a substantial contribution to anticipated growth citywide. Therefore, the project would not result in any significant impacts related to population and housing. The impact would be less than significant.

- b) – c) There are no residential units on the project site, therefore no housing units or people would be displaced by the proposed project. The project would have no impact.

References

Association of Bay Area of Bay Area Government (ABAG), *Projections 2002*.

XIII. Public Services

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant with Standard Conditions of Approval</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
13. PUBLIC SERVICES—Would the project:					
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:					
i) Fire protection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

- a.i) The project site is located in a developed area of Oakland already served by public services. Fire protection and emergency medical response services would be provided to the site by the Oakland Fire Department. The two nearest fire stations to the project site are Station 6 located at 6080 Colton Boulevard, (approximately 2.2 miles southeast of the project site), and Station 19 at 5766 Miles Avenue (approximately 2.4 miles west of the project site). In accordance with standard City practices, the proposed project would be designed in

compliance with Oakland's Building Code, and the Fire Department would further review the project plans at the time of building permit issuance to ensure that adequate fire and life safety measures are designed into the project and in compliance with all applicable state and city fire safety requirements.

The increased population attributable to this proposed development (approximately 16 persons/residents) would be expected to result in an incremental increase in the number of emergency medical calls at the project site (see Section XII, Population and Housing). This increase would not be substantial given the relatively small percentage of total growth within the context of the surrounding vicinity.

However, the project will require new facilities to ensure adequate emergency fire service to the site and new residences. As discussed in Section VII, Hazards and Hazardous Materials, the Oakland Fire Department has identified the area has having inadequate fire flow and constrained fire crew and fire apparatus access. Pali Court is the existing public street which extends from Mountain Boulevard and terminates in a dead end approximately 390 feet from Mountain Boulevard. The proposal would include the extension of Pali Court for an additional 395 feet to serve the proposed lots. The total length of the extended public street resulting in a dead end would be approximately 785 feet. A new Private Access Easement (PAE) would extend from two portions of the extended Pali Court and create a "loop road" of approximately 750 feet in length to serve a total of six lots (five to be created by the project sponsor and one existing lot currently owned and occupied by another private party). One lot, No. 6, would be served solely by the extended Pali Court. The proposed street extension and loop road PAE would extend beyond the 600-foot limit established by the Oakland Municipal Code and would result in less than two emergency access routes. The first entry point into the proposed PAE would be located approximately 600 feet from Mountain Boulevard, so that all properties located on the dead end street in excess of 600 feet would have an **alternative** secondary means of egress/access through the loop road rather than a secondary access road. The project site is also located within the City's Wildfire Assessment District, an area that could potentially expose people and structures to wildland fires. These issues related to emergency access and wildland fire will be fully analyzed in the EIR.

- a.ii) Police protection services would be provided to the project site by the Oakland Police Department, headquartered in downtown Oakland at 455 Seventh Street, approximately seven miles from the project site. The proposed project could incrementally increase the demand for police services, but the increased demand generated by six residential units would not be substantial; therefore, the project would not substantially require new or physically-altered police facilities to ensure the provision of adequate police service. The impact would be less than significant.
- a.iii) The Oakland Unified School District (OUSD) operates public schools within the vicinity of the project site. The project site lies within the boundaries serviced by Thornhill Elementary School, located at 5880 Thornhill Drive, approximately 1.7 miles from the project site. The project site also lies within the boundaries of Montera Middle School,

located at 5555 Ascot Drive, approximately 2.6 miles south of the project site, and Skyline High School, located at 12250 Skyline Boulevard, approximately six miles south of the project site.

The student generation rate, developed by the California State Department of Education and currently employed by the OUSD, estimates that one dwelling unit would generate an average of 0.79 students: 0.43 students who would attend Kindergarten through grade six, 0.12 students who would attend grades seven through eight, and 0.24 students who would attend grades nine through twelve (OUSD, 2007). Therefore, the proposed project could be expected to generate approximately five students. The project would be required to comply with requirements of Senate Bill 50. Therefore, prior to issuance of building permits, the project sponsor would be required to pay school impact fees for residential space to offset any impacts to school facilities from the proposed project. As a result, the project impact to schools would be less than significant.

a.iv) See Section XIV. Recreation, for discussion of impacts to park facilities.

References

City of Oakland, *Oakland General Plan, Land Use and Transportation (LUTE) Element*, June 1998, as amended.

City of Oakland, *Safety Element*, adopted November 2004.

Oakland Unified School District (OUSD), <http://webportal.ousd.k12.ca.us/Default.aspx>, site accessed August 16, 2007.

XIV. Recreation

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant with Standard Conditions of Approval</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
14. RECREATION—Would the project:					
a) 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 checked="" type="checkbox"/>	<input type="checkbox"/>

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant with Standard Conditions of Approval</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
b) 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 checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

a) – b)

The project site is located in the North Hills Planning Area, as identified by the OSCAR Element of the Oakland General Plan. According to the OSCAR, the North Hills Planning Area has a per capita park acreage of 2.35 acres per 1,000 residents, which is the second highest of the City's planning areas. Nearby parks and recreational facilities include the Lake Temescal Regional Recreation Area and the Chabot Recreation Center. The additional resident population that would be generated by the proposed project (approximately 16 persons) would incrementally increase the use of area parks facilities, however, it is not anticipated that this increase would warrant the construction of new park facilities. The project impact would be less than significant.

References

City of Oakland, *Oakland General Plan, Open Space, Conservation and Recreation (OSCAR) Element*, June 1996.

XV. Transportation and Traffic

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant with Standard Conditions of Approval</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
15. TRANSPORTATION/TRAFFIC— Would the project: Cause an increase in traffic which is substantial in relation to the traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections), or change the condition of an existing street (i.e.) street closures, changing direction of travel) in a manner that would substantially impact access or traffic load capacity of the street system? Specifically:					

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant with Standard Conditions of Approval</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) At a study, signalized intersection which is located outside the Downtown area, the project would cause the level of service (LOS) to degrade to worse than LOS D (i.e., E)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) At a study, signalized intersection which is located within the Downtown area, the project would cause the LOS to degrade to worse than LOS E (i.e., F)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) At a study, signalized intersection outside the Downtown area where the level of service is LOS E, the project would cause the total intersection average vehicle delay to increase by four (4) or more seconds, or degrade to worse than LOS E (i.e., F)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) At a study, signalized intersection for all areas where the level of service is LOS E, the project would 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., F)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) At a study, signalized intersection for all areas where the level of service is LOS F, the project would cause (a) the total intersection average vehicle delay to increase by two (2) or more seconds, or (b) an increase in average delay for any of the critical movements of four (4) seconds or more; or (c) the volume-to-capacity ("V/C") ratio exceeds three (3) percent (but only if the delay values cannot be measured accurately)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) At a study, unsignalized intersection, the project would add ten (10) or more vehicles and after project completion satisfy the Caltrans peak hour volume warrant?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) For a Congestion Management Program (CMP) required analysis, (i.e., projects that generate 100 or more p.m. peak hour trips) cause a roadway segment on the Metropolitan Transportation System to operate at LOS F or increase the V/C ratio by more than three (3) percent for a roadway segment that would operate at LOS F without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant with Standard Conditions of Approval</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
h) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Substantially increase hazards due to motor vehicles, bicycles, or pedestrians due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j) 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k) Fundamentally conflict with adopted policies, plans, programs supporting alternative transportation (e.g. bus turnouts, bicycle routes)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cumulative Impacts					
l) A project's contribution to cumulative impacts is considered "considerable" (i.e., significant) when the project exceeds at least one of the intersection-related thresholds listed above in threshold #a through #g for years 2015 or 2030.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

a) –f)

The project site connects to the area road network via two-lane roads (Pali Court, Glenarms Drive, Caldwell Road, and Pinewood Road) to four-lane Broadway Terrace. The Pinewood Road / Broadway Terrace intersection is close to on- and off ramps serving the State Route 13 (SR 13) freeway (also referred to throughout this Initial Study as Highway 13), providing proximate access to the regional highway system.

Trip Generation

The project as originally proposed included construction of seven single-family homes while the revised project includes only six homes. The traffic analysis uses seven units to determine

potential traffic impacts, which therefore represents a more conservative analysis as compared to the proposed project. The construction of seven new single-family homes on Pali Court would increase traffic volumes on roadways in the vicinity of the project site. However, the increase would not be substantial in relation to the traffic load and capacity of the street system. Currently Pali Court provides access to three single-family homes. The standard reference, Institute of Transportation Engineers (ITE), Trip Generation, 7th Edition provides trip generation rates that indicate that the addition of seven homes would about 68 vehicle trips per day (50 percent entering and 50 percent exiting) to the local street system. Peak-hour vehicle trips generated by the project are estimated at about five and seven vehicles during the a.m. and p.m. peak hours, respectively.

The ITE Trip Generation publication points out that the single-family land use category includes data from a wide variety of units with different sizes, price ranges and locations. The ITE data indicates dwelling units like those proposed for Pali Court that were larger in size, more expensive, or farther away from the central business district (CBD) typically have higher rates of trip generation per unit than those smaller in size, less expensive, or closer to the CBD. The ITE average trip generation rate for single-family detached housing is a product of surveys of 350 sites throughout the United States and Canada and includes housing units with characteristics (lot size, cost and location) similar to the proposed project.

TJKM Transportation Consultants, in their *Traffic Engineering Review of the Proposed Residential Development on Pali Court* (March 5, 2007), conservatively increased the estimated trip generation for the project housing units based on the anticipated size, cost and distance from commercial/retail uses and transit service. The TJKM report increased the daily trip rate by 40 percent and doubled the a.m. and p.m. peak-hour rates. The adjusted rates as compared to the ITE average rates are shown below.

DAILY VEHICLE TRIP GENERATION RATES

Source of Rates	Daily	AM Peak Hour	PM Peak Hour
ITE	9.57	0.75	1.01
TJKM Adjusted	13.4	1.50	2.02

The adjusted rates applied to the proposed project would generate about 94 weekday vehicle trips, eleven a.m. and fourteen p.m. peak-hour vehicle trips. Total traffic on Pali Court with ten homes (three existing and seven proposed) would be 135 weekday vehicle trips, fifteen a.m. and twenty p.m. peak-hour trips using the adjusted rates. Estimated traffic with ten homes on Pali Court using the ITE rates would be 96 weekday vehicle trips, eight a.m. and ten p.m. peak-hour vehicle trips.

LOS Analysis

Peak period turning movement counts were taken at the Broadway Terrace / Glenwood Glade / Pinewood Road / SR 13 Northbound on ramp intersection by ESA on Thursday, July 19, 2007 (7:00-9:00 a.m.) and by TJKM on Wednesday, September 27, 2006 (4:00-6:00 p.m.). The morning peak hour was documented at 8:00-9:00 a.m. with a total of 1,209 vehicles. The evening peak hour was documented at 5:00-6:00 p.m. with a total of 1,170 vehicles.

The five-legged unsignalized study intersection is controlled with stop signs and a yield sign (eastbound right-turn movement) on the four approaches to the intersection. The fifth leg carries traffic away from the intersection on the SR 13 Northbound highway access on ramp. The intersection was analyzed using the Highway Capacity Software (HCS) for All-Way Stop Control intersections, with some approach turning movement volumes combined to provide an analysis of a typical four-legged intersection. The results of the level of service (LOS) analysis are shown below.

PEAK HOUR LEVEL OF SERVICE (LOS) AND DELAY

Existing	LOS	Delay
AM Peak Hour	C	17.5
PM Peak Hour	C	15.4
With Project		
AM Peak Hour	C	17.8
PM Peak Hour	C	15.7

As shown above, the overall intersection is currently operating at acceptable peak-hour LOS. Of note, the intersection analysis indicates each approach to the intersection operates at LOS C or better. The “with project” scenario uses traffic generated by the above-described “large lot” adjusted trip generation rates (11 vehicles in the a.m. peak hour and 14 vehicles in the p.m. peak hour). Further, the analysis assumes that all project-generated peak-hour trips would pass through this intersection to and from the site.

The proposed project would add fewer than ten vehicles to the all-way stop intersection at Broadway Terrace / Glenwood Glade / Pinewood Road / SR 13 Northbound on-ramp during the a.m. and p.m. peak hours. The addition of project-generated vehicles at this intersection would not be sufficient to meet the Caltrans peak-hour volume warrant for a traffic signal.

Using the adjusted trip generation rates for large lot homes would add more than ten vehicles at this intersection. The adjusted rates generate eleven vehicle trips and fourteen vehicle trips during the a.m. and p.m. peak hours respectively. However, even with those higher-than-average project trips, the total volumes would not be sufficient to satisfy the Caltrans peak-hour volume warrant for installation of a traffic signal.

In summary, the addition of trips generated by the proposed project would cause no change in LOS and minor increases to delay, and would not increase peak-hour intersection volumes to the level necessary to meet Caltrans peak-hour volume warrant for a traffic signal. The proposed project therefore would have a less-than-significant impact on traffic flow conditions at the closest main intersection, and its effect would lessen further at intersections farther away from the project site, as project trips would be dispersed over the roadway network.

- g) As described under item a) above, the proposed project is estimated to generate fewer than fifteen vehicle trips during both the a.m. and p.m. peak hour using adjusted “large lot” rates and fewer than eleven trips during both the a.m. and p.m. peak hour using ITE average trip generation rates for single-family detached units. Given the anticipated dispersion of the

relatively low number of project trips on different roadways in the area, it is reasonably assumed that project-generated traffic would not cause a Metropolitan Transportation System (MTS) roadway segment to operate at LOS F or increase the V/C ratio by more than three percent for a roadway segment that would operate at LOS F without the project. The proposed project therefore would have a less-than-significant impact on the MTS roadway network.

- h) Project would not result in change to air traffic patterns. The project would have no impact.
- i) The proposed project would neither change the physical characteristics of the street network surrounding the site, nor generate traffic that is incompatible with existing traffic patterns. In addition, the project-generated increase in traffic volumes on area roadways would not be high enough to cause a worsening of traffic safety. Therefore, the project would have a less-than-significant traffic safety and hazards impact.
- j) Pali Court is the existing public street which extends from Mountain Boulevard and terminates in a dead end approximately 390 feet from Mountain Boulevard. The proposal would include the extension of Pali Court for an additional 395 feet to serve the proposed lots. The total length of the extended public street resulting in a dead end would be approximately 785 feet. A new Private Access Easement (PAE) would extend from two portions of the extended Pali Court and create a “loop road” of approximately 750 feet in length to serve a total of six lots (five to be created by the project sponsor and one existing lot currently owned and occupied by another private party). One lot, No. 6, would be served solely by the extended Pali Court. The proposed street extension and loop road PAE would extend beyond the 600-foot limit established by the Oakland Municipal Code and would result in less than two emergency access routes. The first entry point into the proposed PAE would be located approximately 600 feet from Mountain Boulevard, so that all properties located on the dead end street in excess of 600 feet would have an **alternative** secondary means of egress/access through the loop road rather than a secondary access road. This potentially significant impact will be analyzed fully in the EIR.
- k) The proposed project would not fundamentally conflict with adopted policies, plans; programs supporting alternative transportation (e.g., bus turnouts, bicycle routes). The seven homes would not be conveniently located near transit and bicycle facilities; however residents from the project could access such facilities if they choose to. The closest AC Transit bus line (Line 59) is located at Broadway Terrace and Pinewood Road approximately 0.5 mile from the project site. Broadway Terrace in the vicinity of Pinewood Road is part of a signed bicycle route (Route #229) and is also connected to bike Route #45 connecting to Mountain / Monterey / Moraga and the Lake Temescal bike path. The impact would be less than significant.
- l) As described above under items a - g), the proposed project would not exceed any of the intersection-related thresholds; therefore, the impact would be less than significant.

References

Federal Highway Administration, *Manual on Uniform Traffic Control Devices*, Chapter 4C, June 2001.

Institute of Transportation Engineers (ITE), *Trip Generation*, 7th Edition, 2003.

TJKM Transportation Consultants, *Traffic Engineering Review of the Proposed Residential Development on Pali Court*, March 5, 2007

XVI. Utilities and Service Systems

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant with Standard Conditions of Approval</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
16. UTILITIES AND SERVICE SYSTEMS—Would the project:					
a) Exceed wastewater treatment requirements of the San Francisco Bay Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Require or result in construction of new storm water drainage facilities or expansion of existing facilities, construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant with Standard Conditions of Approval</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
f) Violate applicable federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Violate applicable federal, state and local statutes and regulations relating to energy standards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h) Result in a determination by the energy 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 energy facilities or expansion of existing facilities, construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

a), b), and d)

East Bay Municipal Utility District (EBMUD) provides wastewater treatment services to approximately 640,000 people within an 83-square mile area of Alameda and Contra Costa counties, including the City of Oakland. EBMUD's main wastewater treatment plant, which provides primary and secondary wastewater treatment, is located southwest of the Interstate 580/Interstate 80 interchange in Oakland. Currently, the EBMUD plant has the dry weather capacity of 168 million gallons of water per day (mgd). With the current average flow of 80 mgd, the plant is operating at 47.6 percent capacity. Additionally, primary wastewater treatment can be provided for up to 320 mgd.

According to the City of Oakland Sanitary Sewer Design Guidelines, the proposed project would generate approximately 1,980 gallons of wastewater (gpd) per day or approximately 722,700 gallons per year. The amount of wastewater that is anticipated by the project would not be expected to exceed the wastewater treatment requirements of the San Francisco Bay Regional Water Quality Control Board. Furthermore, other than extending the existing infrastructure to the project site, no additional wastewater treatment facilities would need to be constructed to accommodate the proposed project. The project's impact to wastewater and stormwater systems would be less than significant with implementation of the following standard condition of approval:

STANDARD CONDITION UTIL-1: *Prior to completing the final design for the project's sewer service.* Confirmation of the capacity of the City's surrounding stormwater and sanitary sewer system and state of repair shall be completed by a qualified civil engineer with funding from the project applicant. The project applicant

shall be responsible for the necessary stormwater and sanitary sewer infrastructure improvements to accommodate the proposed project. In addition, the applicant shall be required to pay additional fees to improve sanitary sewer infrastructure if required by the Sewer and Stormwater Division. Improvements to the existing sanitary sewer collection system shall specifically include, but are not limited to, mechanisms to control or minimize increases in infiltration/inflow to offset sanitary sewer increases associated with the proposed project. To the maximum extent practicable, the applicant will be required to implement Best Management Practices to reduce the peak stormwater runoff from the project site. Additionally, the project applicant shall be responsible for payment of the required installation or hook-up fees to the affected service providers.

- c) EBMUD supplies water to nearly 1.3 million people within its estimated 325-square mile service area, including the City of Oakland. EBMUD's network of reservoirs, aqueducts, treatment plants and distribution facilities extends from its principal water source in the Sierra Nevada. According to EBMUD, between 1987 and 2005 water consumption by EBMUD customers has fluctuated between 220 mgd and 170 mgd. With the implementation of water conservation and recycling programs already in place, EBMUD estimates that projected 2025 demand would be approximately 230 mgd.

The estimated water demand attributed to the proposed project is about 2,277 gallons per day (gpd). This amount is consistent with EBMUD's future projections and would not be expected to exceed EBMUD's water supply capacity. Furthermore this projected demand comprises less than 0.01 percent of total EBMUD projected water demand. Since the projected water demand is anticipated to be a small percentage of the City's total demand and since no new facilities would need to be constructed as a result of this project, the project's impact on water provisions would be less than significant.

- e) and f)

The City of Oakland is served by the Altamont Sanitary Landfill, located at 10840 Altamont Pass Road in Livermore. Solid waste is delivered to the landfill by Waste Management of Alameda County (WMAC), the City's franchise hauler. WMAC collects solid waste from residential, commercial and industrial customers and delivers it to the Davis Transfer Station in San Leandro, where it is then transferred to larger vehicles and hauled to Altamont Landfill.

The Altamont Landfill is a Class III landfill that is currently anticipated to be in operation until 2045. Although there are no plans for new landfills, in 2000, WMAC, Altamont Landfill's owner and operator, was granted a horizontal expansion that increased the landfill capacity by 40 million tons of solid waste to 67 million tons. Compliance with the following uniformly applied standard condition of approval would ensure that waste generated during project construction would be less than significant:

STANDARD CONDITION UTIL-2: The project applicant will submit a Construction & Demolition Waste Reduction and Recycling Plan (WRRP) and an

Operational Diversion Plan (ODP) for review and approval by the Public Works Agency. *Prior to issuance of demolition, grading, or building permit.* Chapter 15.34 of the Oakland Municipal Code outlines requirements for reducing waste and optimizing construction and demolition (C&D) recycling. Affected projects include all new construction, renovations/alterations/modifications with construction values of \$50,000 or more (except R-3), and all demolition (including soft demo). The WRRP must specify the methods by which the development will divert C&D debris waste generated by the proposed project from landfill disposal in accordance with current City requirements. Current standards, FAQs, and forms are available at www.oaklandpw.com/Page39.aspx or in the Green Building Resource Center. After approval of the plan, the project applicant shall implement the plan.

Ongoing. The ODP will identify how the project complies with the Recycling Space Allocation Ordinance, (Chapter 17.118 of the Oakland Municipal Code), including capacity calculations, and specify the methods by which the development will meet the current diversion of solid waste generated by operation of the proposed project from landfill disposal in accordance with current City requirements. The proposed program shall be implemented and maintained for the duration of the proposed activity or facility. Changes to the plan may be re-submitted to the Environmental Services Division of the Public Works Agency for review and approval. Any incentive programs shall remain fully operational as long as residents and businesses exist at the project site.

g) and h)

The project would increase energy consumption at the project site, but not to a degree that would require construction or expansion of new facilities. The project demand would be typical for a project of this scope and nature and would meet or exceed current state and local codes and standards concerning energy consumption, including Title 24 of the California Code of Regulations enforced by the City of Oakland through its building permit review process. The project would have a less than significant impact regarding energy.

References

City of Oakland Public Works Agency, *Sanitary Sewer Design Guidelines*, Design & ROW Management Division, November 2004.

East Bay Municipal Utility District, *2005 Urban Water Management Plan*, November 2005.

XVII. Mandatory Findings of Significance

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

Discussion

- a) As discussed in Section IV, Biological Resources, the proposed project has the potential to reduce the number of Alameda whipsnakes found on the project site, which is listed as both federally and state threatened. Other potentially significant impacts regarding geology and water quality may result from the proposed project and may degrade the quality of the environment. Each of these topics will be fully analyzed in the EIR.
- b) Given the scale of the proposed development and the demand resulting from new population and uses on the site, combined with that anticipated in the project vicinity in the future, the incremental effects of the project can reasonably be expected to not be cumulatively considerable. Development of the project site is consistent with that envisioned and anticipated by the General Plan. However, potential cumulatively considerable impacts may result from topics to be addressed in the EIR.

- c) As discussed in Section VI, Geology and Soils, Section VII, Hazards and Hazardous Materials, Section VIII, Hydrology and Water Quality, and Section XV, Transportation and Traffic, the proposed project may have significant adverse effects on human beings regarding geotechnical stability; water quality; and hazards due to emergency access and wildland fires. As previously indicated throughout this Initial Study, each of these topics, and specifically the potential effects each may have on human beings, will be fully analyzed in the EIR.
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