Exhibit F

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County of Monterey
State of California

MITIGATED NEGATIVE DECLARATION

Project Title:	Lundquist
File Number:	PLN110114
Owner:	LUNDQUIST RICHARD C & MELANIE F TRS
Project Location:	3224 17-Mile Drive, Pebble Beach
Primary APN:	008-472-006-000
Project Planner:	Delinda Robinson
Permit Type:	Combined Development Permit
Project Description:	Combined Development Permit consisting of a: 1) Coastal Administrative Permit to allow the construction of a detached 1,070 square foot four-car garage with planted roof (green roof), a new permeable cobblestone driveway, the replacement of an existing wood fence with a new stone wall with six 12.5 foot sections of antique bronze open-design fencing and antique bronze fencing with stone pillars at the new driveway entrance, restoration of existing paths and driveway to native Monterey cypress habitat, grading of approximately 550 cubic yards of cut and 200 cubic yards of fill and; 2) a Coastal Development Permit for the removal of one 7" Monterey cypress and; 3) a Coastal Development Permit for the development within 100 feet of Environmentally Sensitive Habitat Area and; 4) a Coastal Development Permit for development within 750 feet of a known archaeological resource and; 5) a Coastal Development Permit for development on slopes greater than 30%; and 6) Design Approval.

THIS PROPOSED PROJECT WILL NOT HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT AS IT HAS BEEN FOUND:

a) That said project will not have the potential to significantly degrade the quality of the environment.

b) That said project will have no significant impact on long-term environmental goals.

c) That said project will have no significant cumulative effect upon the environment.

d) That said project will not cause substantial adverse effects on human beings, either directly or indirectly.

Decision Making Body:	Monterey County Board of Supervisors
Responsible Agency:	County of Monterey
Review Period Begins:	June 27, 2012
Review Period Ends:	July 26, 2012

Further information, including a copy of the application and Initial Study are available at the Monterey County Planning & Building Inspection Department, 168 West Alisal St, 2nd Floor, Salinas, CA 93901 (831) 755-5025

Date Printed: 3/12/2002

MONTEREY COUNTY
RESOURCE MANAGEMENT AGENCY
PLANNING DEPARTMENT
168 WEST ALISAL ST., 2nd FLOOR, SALINAS, CA 93901
PHONE: (831) 755-5025 FAX: (831) 757-9516

INITIAL STUDY

I. BACKGROUND INFORMATION

Project Title:	Richard C & Melanie Lundquist
File No.:	PLN110114
Project Location:	3224 17-Mile Drive, Pebble Beach, Ca.
Name of Property Owner:	Richard C & Melanie Lundquist
Name of Applicant:	Robert Carver & Jay Auburn
Assessor's Parcel Number(s):	008-472-006-000
Acreage of Property:	1.681 acres
General Plan Designation:	Residential 1U/2AC - Resource Constraint Area
Zoning District:	LDR/2-D(CZ)
Lead Agency:	RMA – Monterey County Planning Department
Prepared By:	Valerie Negrete and Delinda Robinson
Date Prepared:	June 25, 2012
Contact Person:	Delinda Robinson
Phone Number:	(831) 755-5198

II. DESCRIPTION OF PROJECT AND ENVIRONMENTAL SETTING

A. Description of Project:

The project consists of the construction of a detached, 1,070 square foot four-car, below-grade garage with a planted roof (green roof), the removal of an existing 3,110 square foot asphalt driveway and the construction of a new 3,874 square foot permeable cobblestone driveway in a new location, approximately 90 linear feet of retaining walls, the replacement of the existing 4.5 to 6 foot tall wood "grapestake" fence along the entire property frontage with a new solid stone wall with 6 fenced openings and an antique bronze gate. The proposed height of the new wall/fence is 4 to 6 feet from finished grade and 4 to 8 feet from the existing grade. **(See Section VI.1 for more discussion).** Construction will require grading of approximately 770 cubic yards of grading (550 cut/200 fill), and the transplanting of one (1) 7" Monterey cypress tree as well as the removal of two (2) dead Monterey pine trees of 13.8" and 8" respectively. The existing driveway area and 1,412 square feet of existing gravel paths will be restored to native cypress habitat for a net increase of approximately 648 square feet of habitat. The applicant proposes to use granite veneer for the site walls and front of the garage, wooden garage doors and antique bronze metal fencing. The garage will be built into the slope adjacent to and facing away from 17-Mile Drive and the roof will be covered with plantings.

The subject property is located within the Coastal Zone and the project will require six (6) entitlements. The project is a Combined Development Permit consisting of: 1) a Coastal Administrative Permit to allow the construction the garage, realignment of the driveway and associated site improvements; 2) a Coastal Development Permit for the relocation and transplanting of one 7" Monterey cypress; 3) a Coastal Development Permit for development within 100 feet of Environmentally Sensitive Habitat Area (ESHA); 4) a Coastal Development Permit for development within 750 feet of a known archaeological resource; 5) a Coastal Development Permit for development on slopes greater than 30%; and 6) Design Approval. The property is located at 3224 17-Mile Drive, Pebble Beach (Assessor's Parcel Number 008-472-006-000), Del Monte Forest area, Coastal Zone.

<u>Tree Removal and Relocation</u>

The Del Monte Forest Land Use Plan requires a Coastal Development Permit for the removal of trees and other major vegetation (Section 20.147.050.A.1). A Coastal Development Permit is not required when a tree is diseased and would cause a threat to spread disease to nearby forest areas. In this case, the construction of the new garage will impact three trees. One of the three trees is a young Monterey cypress of 7" in diameter and therefore requires a Coastal Development Permit; the other two Monterey Pine trees are dead and do not require a Coastal Development Permit for their removal. The applicant proposes to relocate the young Monterey cypress to a location approved by the project arborist. Policy 21 of the Del Monte Forest Land Use Plan prohibits development within the dripline of Monterey cypress habitat. However the applicant will be incorporating the use of bridging the roots of the trees along the proposed driveway and adjacent to the new stone wall to protect any Monterey cypress tree from adverse effects due to construction **(See Section VI.4 for further discussion).**

<u>Wall Replacement</u>

The site is located between 17-Mile Drive and the sea and is within the viewshed of a scenic corridor identified on the Del Monte Forest Land Use Plan (LUP) Visual Resources Map. The site is predominantly Monterey cypress habitat and is listed as a Visual Resource for its views to and along the ocean. Several polices within the LUP require siting and design of structures to harmonize with the natural setting and LUP Policy No. 59 specifically requires that "New development, including ancillary structures such as fences constructed between 17-Mile Drive and the sea . . . be designed and sited to minimize obstruction of views from the road to the sea." Currently, the site contains a wood fence that is approximately 4.5 to 6 feet high along the 17-Mile Drive frontage. The applicant proposes to replace the fence with a solid wall with six 12.5-foot sections of antique bronze fencing of an open design that is proposed to be 4 to 6 feet tall as measured from the finished grade. The gated driveway entrance, which is approximately 40 feet wide, will also be antique bronze fencing of an open design with stone pillars. The construction of the proposed wall will require excavation for the footings and the applicant proposes to raise the finished grade up to 2 feet from the existing grade at the 2 lowest points, resulting in a solid wall with openings that is taller than the existing partially see-through fence along some sections of the frontage. The new wall is designed so that the sections step in height along with the road and finished topography and the top of each section is level.

Development within 100 feet of Environmentally Sensitive Habitat (ESHA)

The site is located within the environmentally sensitive indigenous Monterey cypress habitat. LUP Policy No. 14 requires that development near environmentally sensitive habitat areas (ESHA) be restricted to the minimum amount necessary to accommodate development. The driveway design is needed for a safer entrance to the single-family dwelling. **(Source IX. 1 & 6)** The proposed driveway re-alignment will impact 3,874 square feet of Monterey cypress habitat; however the project will involve the restoration of 3,110 square feet of existing driveway and 1,412 square feet of gravel walkways, for a total restoration of 4,522 square feet and resulting in a 648 square foot net gain of habitat on the site. **(See Section VI.4 for further discussion)**. In addition, the applicant will be required to place the remaining ESHA on the property in Conservation and Scenic Easement to the Del Monte Forest Foundation in accordance with Policy 52, preserving an area around the existing home for reasonable use. In accordance with Monterey County Code Section 20.14.030.E, development within 100 feet of environmentally sensitive habitat requires a Coastal Development Permit.

Development on Slopes over 30%

The project will require the excavation of an area of approximately 160 square feet on a slope greater than 30 percent in order to re-align the driveway as well as a small area for the construction of the garage. Monterey County Code Title 20 Section 20.64.230 provides for an exception on the development on a 30% slope, if the slope is man-made and less than 100 square feet. The subject slope is man-made however it is over 100 square feet and therefore would require a Coastal Development Permit. In order to approve development on slopes of 30% or more, staff must make one of two findings: 1) that there is no feasible alternative which would allow development to occur on slopes of less than 30%; or 2) that the proposed development better achieves the goals, policies and objectives of the Monterey County Local Coastal Program than other development alternatives. The site is constrained by the multiple setbacks and the encroachment onto 30% slopes is not considered significant given the sloping topography of the site **(See Section VI.10 for further discussion).** Further, the project is designed to include

restoration of impacted slopes, which will result in 648 square feet of additional ESHA habitat **(See Section VI.4 for further discussion).**

Cultural Resources

Monterey County Geographic Information Systems (GIS) lists the site as having a high potential to contain archeological resources. An archeological report was conducted by Susan Morley in April 2011 for the project and found the site is a positive site with the possibility of human remains. Monterey County Zoning Ordinance Title 20 Section 20.14.030.F requires a Coastal Development Permit for sites with positive archaeological reports. According to the California Environmental Quality Act (CEQA) Section 15064.5, a positive site cannot be categorically exempt and requires an Initial Study **(See Section VI.5 for further discussion).**

Garage Setback

The proposed garage will be set back 9'-2" from 17-Mile Drive. The site is a rectangular shaped lot that runs parallel to 17-Mile Drive. There is a 100-foot setback requirement from the mean high tide (LUP Policy No. 27) and a 100-foot setback requirement from 17-Mile Drive. The lot has a very small building area (east to west), which does not take into account Cypress habitat, ESHA, potential cultural resources and slope constraints. Monterey County Code Section 20.62.040.C. allows for a garage or parking space to be located within 5 feet of the front property line where the elevation of the front half of the lot at a point 50 feet from the centerline of the traveled roadway is 7 feet above or below the grade of said centerline**.** In this case, the elevation change is 10 feet, so no Variance is required. The Del Monte Forest Land Use Plan Policy 57 states that structures in scenic areas shall utilize native vegetation and topography to provide screening from the viewing area and the least visible portion of the property should be considered the most desirable building site location, subject to consistency with other siting criteria. The below-grade garage will be built into the slope adjacent to and below 17-Mile Drive and will not be visible from the road.

B. Surrounding Land Uses and Environmental Setting:

The project site is a 1.681-acre parcel located at 3224 17-Mile Drive within the Pebble Beach Planning Area of the Del Monte Forest, Monterey County, California. Surrounding land uses include residential development to the north, northeast and east, an open space/resource conservation parcel to the northwest and the Pacific Ocean to the south. The property slopes downward from 17-Mile Drive to the coastal bluff, with slopes ranging from 15 to 50 percent. The soils are sandy loam and the underlying rock is mostly granite. Native stands of Monterey cypress (Cupressus macrocarpa) trees are found throughout the property, an extension of Cypress Point Grove **(See Section VI.4 for more detail).** Several Monterey pines are scattered throughout the property and the dominant native understory species on the site are seaside daisy, Douglas iris, and beach aster. Non-native species which have colonized the site include ice plant, dusty miller, crassula and rattlesnake grass.

The property is served by the Pebble Beach Community Services District for sewer services. Water service to the existing residence is provided by the California-American (Cal-Am) Water Company. (Source: IX. 1, 14).

According to the Del Monte Forest Archeological Resource map, the project site is located within an area of high archaeological sensitivity. Per the archaeological survey prepared for the

project, the site is located within 750 feet of a known archaeological resource. See Section VI.5 below for a detailed discussion and proposed mitigation measures.

Visually, the project parcel borders 17-Mile Drive, a designated scenic roadway, and the existing structure is visible from 17-Mile Drive. Monterey cypress forest on the site and the ocean beyond are currently partially visible through and over the existing wood fence. The property is also visible from Point Lobos State Reserve, as identified on the LUP Visual Resources Map (LUP Figure 2C). The proposed project would not significantly intensify the visual impacts from Point Lobos over the existing residential use of the site because of screening by existing trees and the residence. The proposed garage will be built into the slope below and facing away from 17-Mile Drive. With the green roof and new fencing, the garage will not be visible from 17-Mile Drive. The proposed solid rock wall with strategically placed wrought iron openings will allow for some views through toward the ocean. See **Section VI.1 (Aesthetics)** below for a detailed discussion.

The parcel is also located within the mapped indigenous Monterey cypress habitat area and Monterey cypress habitat is present on the property. The relocation of one small Monterey cypress and the removal of two dead Monterey pine trees is required for the project, and tree protection measures will be required. The applicant proposes to restore the existing driveway and gravel pathways to native Monterey cypress habitat. See **Section VI.4 (Biological Resources)** below for a detailed discussion.

C. Other public agencies whose approval is required: Construction permits will be required by the Monterey County RMA-Building Services Department.

Figure 1: Aerial Site Plan of Lundquist property

III. PROJECT CONSISTENCY WITH OTHER APPLICABLE LOCAL AND STATE PLANS AND MANDATED LAWS

Use the list below to indicate plans applicable to the project and verify their consistency or non-consistency with project implementation.

General Plan/Area Plan	☒	Air Quality Mgmt. Plan	☒
Specific Plan	☐	Airport Land Use Plans	☐
Water Quality Control Plan	☐	Local Coastal Program-LUP	☒

IV. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED AND DETERMINATION

General Plan / Local Coastal Program-LUP

The proposed project was reviewed for consistency with 1982 General Plan, the Del Monte Forest Land Use Plan (LUP), the Monterey County Coastal Implementation Plan Part 5 and the Monterey County Zoning Ordinance (Title 20). The fence replacement, new garage and driveway re-configuration are accessory to the existing residential use of the site. The property is located within a Low Density Residential district, which allows for the proposed use subject to the entitlements listed in Section I above. Potential impacts were identified during staff review and are further discussed in Section VI. **CONSISTENT**.

Air Quality Management Plan

Consistency with the Air Quality Management Plan is an indication of a project's cumulative adverse impact on regional air quality (ozone levels). It is not an indication of project-specific impacts, which are evaluated according to the Air District's adopted thresholds of significance. Inconsistency with the AQMP is considered a significant cumulative air quality impact. Consistency of a project is determined by comparing the project population at the year of project completion with the population forecast for the appropriate five-year increment that is listed in the AQMP. If the population increase resulting from the project would not cause the estimated cumulative population to exceed the relevant forecast, the project would be consistent with the population forecasts in the AQMP (Source: IX. 1, 5). The project is located on a developed residential lot and will not result in an increase in population.

The Association of Monterey Bay Area Governments (AMBAG), the *2008 Population, Housing Unit, and Employment Forecasts* adopted by the AMBAG Board of Directors, are the forecasts used for this consistency determination. The construction of a detached 1,070 square foot four-car garage with planted roof (green roof), a new permeable cobblestone driveway, the replacement of an existing wood fence with a new stone wall, grading of approximately 550 cubic yards of cut and 200 cubic yards of fill and replanting of one 7" Monterey cypress will not contribute to an increase in the population forecasts of the 2008 AQMP and would not result in

substantial population changes. Therefore, the project is consistent with the 2008 regional forecasts and the Air Quality Management Plan (Source: IX. 5). **CONSISTENT**

Water Quality Control Plan. Monterey County is included in the Central Coast Regional Water Quality Control Board – Region 3 (CCRWCB). The CCRWCB regulates the sources of water quality related problems that could result in actual or potential impairment or degradation of beneficial uses or degradation of water quality. The proposed project will not significantly increase on-site impervious surfaces and does not include land uses that introduce new sources of pollution. Therefore, the project will not contribute runoff that will exceed the capacity of stormwater drainage systems or provide substantial additional sources of polluted runoff. The proposed project will not result in water quality impacts or be inconsistent with the objectives of this plan. **CONSISTENT**

A. FACTORS

The environmental factors checked below would be potentially affected by this project, as discussed within the checklist on the following pages.

☒ Aesthetics	☐ Agriculture and Forest Resources	☐ Air Quality
☒ Biological Resources	☒ Cultural Resources	☒ Geology/Soils
☒ Greenhouse Gas Emissions	☐ Hazards/Hazardous Materials	☐ Hydrology/Water Quality
☒ Land Use/Planning	☐ Mineral Resources	☐ Noise
☐ Population/Housing	☐ Public Services	☐ Recreation
☐ Transportation/Traffic	☐ Utilities/Service Systems	☒ Mandatory Findings of Significance

☐ Check here if this finding is not applicable

FINDING: For the above referenced topics that are not checked off, there is no potential for significant environmental impact to occur from either construction, operation or maintenance of the proposed project and no further discussion in the Environmental Checklist is necessary.

EVIDENCE:

2. **Agricultural and Forest Resources:** The subject property is located within an established residential neighborhood and is zoned for residential use. There are no agricultural uses on or within the vicinity of the property and the property is not under a Williamson Act Contract. Furthermore, according to the California Department of Conservation Farmland Mapping and Monitoring Program, the site has not been mapped as Prime Farmland, Unique

Farmland, or Farmland of Statewide Importance and falls within the classification of Urban Built-Up Land. Therefore, the project will have no impact on agricultural resources. The project site is zoned for residential use and harvesting of timber is not allowed in this zoning district. The trees on the site are primarily Monterey cypress, a protected species which could not be harvested as timber per the land use plan policies. The project proposes to increase the Monterey cypress habitat on the site through restoration of more habitat area than is being removed. Thus, the project will have no impact on forest resources. (Source: 1, 2, 3, 4, 6, 12).

3. **Air Quality:** The project area is located within the North Central Coast Air Basin and is subject to the jurisdictional regulations of the Monterey Bay Unified Air Pollution Control District (MBUAPCD) and, to a lesser extent, the California Air Resources Board. The proposed project involves the realignment of a driveway and the construction of a new fence and garage on a lot that is developed with a single family residence in a residential area. The nearest structure to the project site is a residence approximately 90 feet to the southeast. The nearest structure to the northeast is more than 150 feet from the project site. It is anticipated that particulate matter (PM_{10}) would be the primary air pollutant resulting from project construction activities. The project would only result in a significant air quality impact if direct emissions of more than 82 pounds/day (lbs/day) of PM_{10} were to occur. Construction activities would involve relatively small crews for a small residential project, and would involve limited construction equipment; therefore, the project is not anticipated to emit more than 82 lbs/day of PM_{10}. The project will also not disturb more than 8.1 acres per day, the threshold established by the MBUAPCD above which the project could have a significant impact for PM_{10}. Disturbed areas would be watered or treated with an appropriate dust palliative; therefore, fugitive dust emissions would be limited and impacts from PM_{10} resulting from fugitive dust emissions are not anticipated. After completion of construction activities, the project will not create any air emissions beyond those associated with normal residential uses. The nearest school to the project site is the Robert Louis Stevenson School, which is located approximately 1.2 miles northeast of the project. Because of the significant distance between the school and the project site, it is not anticipated that the project would impact this sensitive receptor. The two nearest residences could be impacted by PM_{10} (dust) impacts during construction activities. However, the dust effects would be localized and limited because there would be a small amount of daily ground disturbance and construction activities associated with the project. Operation of construction vehicles could generate airborne odors (e.g., diesel exhaust); however, such emissions would be localized to the immediate area under construction and would be short in duration. Therefore, the project would not conflict with or obstruct the implementation of the applicable Air Quality Management Plan (identified above in Section III), would not violate any air quality standard or result in a cumulatively considerable net increase of any criteria pollutant for which the region is in non-attainment, would not expose sensitive receptors to substantial pollutant concentrations, nor create objectionable odors affecting a substantial number of people (Source: IX. 1, 5, 6, 14). The proposed project will not increase the population of the area nor generate additional vehicle trips. Construction related air quality impacts would be temporary in nature and controlled by standard Conditions of Approval that require watering, erosion control and dust control measures. There would be no impacts to Air Quality.

8. **Hazards/Hazardous Materials:** The project includes a new fence, a new underground garage, and the re-alignment of the driveway for an existing single family dwelling on 17-Mile Drive. The project site is not located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. As a residence, the project does not involve the transport, use, or disposal of hazardous materials other than those found within a typical residence. The project does not involve the demolition of structures where there is the potential for the release of asbestos. The nearest school is Robert Louis Stevenson School which is 1.2 miles from the project site. Construction activities will not release hazardous materials, substances, or waste within one-quarter of an existing school. The project is not located within airport land use plan or within two miles of a public airport, public use airport or private airstrip; therefore the project will not result in a safety hazard for people residing or working in the project area. The development of the new driveway will not physically interfere with an adopted emergency response plan or emergency evacuation plan. The project site is within a high fire hazard area and within a State Responsibility Area; however, the project, as proposed, does not increase the hazards associated with development in a high fire hazard area. The project has been conditioned by the Pebble Beach Community Services District with standard conditions of approval, including a condition to manage combustible vegetation within a minimum of 100 feet of structures (or to the property line). Therefore, there will be no impact on hazards or hazardous materials. (Source IX 1, 2, 14).

9. **Hydrology/Water Quality:** The garage addition, driveway re-alignment and fence replacement will not violate any waste discharge requirements, deplete groundwater supplies or alter an existing drainage pattern. The existing residential use on the property is connected to a public water system and a public sewer system and the addition of a new garage is not expected to result in an increase in potable water use or wastewater generation. The proposed garage will include a planted roof, the new driveway will be built with permeable pavers and no additional grading is proposed. Existing gravel paths and parking areas will be restored to native Monterey cypress habitat. No new impervious surfaces are proposed. Drainage from the site currently flows to the adjacent beach and no changes to the drainage system are proposed. Standard erosion control measures will be placed on the project to reduce any potential run-off associated with the proposed project. There are no streams or rivers located on the project site. Based upon the FEMA Flood Insurance Rate Map the property is not located in a Special Flood Hazard Area. It is located in Zone X (unshaded), as shown on FEMA Flood Insurance Rate Map Panel 06053C-0305G, effective date April 2, 2009. There are no levees, dams, or other water detention facilities upstream of the project site capable of causing flooding on the site. The project site is located on the coast but the proposed project area is not within a tsunami inundation area according to the California Department of Conservation Tsunami Inundation Map for Emergency Planning, Monterey Quadrangle. There are no bodies of water in the vicinity of the project large enough to produce a seiche. Therefore, there will be no impact to hydrology or water quality. (Source IX. 1, 2, 14)

11. **Mineral Resources:** Based on review of maps in the Monterey County 1982 General Plan, the Del Monte Forest Land Use Plan, SMARA Designation Report No. 7 and the California Department of Conservation Division of Mines and Geology Mineral Land Classification

maps for Monterey County, the subject property is not located in an area where mineral resources are known to exist nor have any mineral resources been identified on the site. Therefore, the project will not result in the loss of availability of a known mineral resource that is of value to the region and the residents of the state nor will it result in the loss of availability of a locally-important mineral resource recovery site as delineated in the Monterey County General Plan or the Del Monte Forest Land Use Plan. Therefore, the project will have no impact to mineral resources (Source: 1, 2, 3, 14).

12. **Noise:** The closest sensitive receptors (residences) are located on 17-Mile Drive approximately 90 feet to the southeast and approximately 150 to the northeast, as measured from the nearest property line. Noise generated from the property will not be more than what is associated with a typical residential use; therefore, there will be no substantial increase in ambient noise above existing levels. Construction activities may generate noise and vibrations; therefore, there could be a periodic increase in ambient noise levels in the project vicinity during construction. However, noise levels are not expected to expose people to or generate of noise levels in excess of standards established in the 1982 General Plan or Monterey County Code Chapter 10.60. Some groundborne vibrations and groundborne noise levels may be associated with the grading activities proposed. With the nearest offsite residence more than 90 feet away, exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels is not expected. The project is not located within airport land use plan or within two miles of a public airport, public use airport or private airstrip; therefore the project will not result in excessive noise levels for people residing or working in the project area. Therefore, there will be no impact to noise. (Source IX 1, 2, 6, 14, 15)

13. **Population/Housing:** The proposed project consists of the construction of a new garage and fence and the realignment of the driveway on an existing residential parcel that is developed with a single family residence. The project would not induce substantial population in the area, either directly through the construction of the structures within a residential area or indirectly, as no new infrastructure would be extended to the site. The project is associated with the existing use of a developed lot. There are no plans for additional housing or for demolition of any housing. The project would not alter the location, distribution, or density of human population in the area in any significant way, or create a demand for additional housing. Therefore, the project will have no impact on population or housing. (Source: IX. 1, 2, 3, 5)

14. **Public Services:** The proposed project involves the replacement of a driveway and the construction of a new garage and fence on an existing residential lot which would continue to be served by existing services and utilities. Water service is provided by California American Water and wastewater service is provided by the Pebble Beach Community Services District (PBCSD) and the Carmel Area Wastewater District. Emergency response is provided by PBCSD (fire) and the Monterey County Sheriff's Department. The project would have no measurable effect on existing public services in that the project will not result in an intensification of the residential use on the property nor will it require expansion of any services to serve the project. County Departments and service providers reviewed the project

application and did not identify any impacts (Source: IX. 1, 14). Therefore, there will be no impacts on public services.

15. **Recreation:** The project would result in the realignment of a driveway and the construction of a garage and new fence. Due to the small scale of the project, it would not result in an increase in use of existing recreational facilities causing substantial physical deterioration. Parks, trail easements, or other recreational opportunities would not be adversely impacted by the proposed project. The project would not create significant recreational demands, and would not result in impacts to Recreation. The project does not include recreational facilities, nor does it require the construction or expansion of recreational facilities, nor does it require the construction or expansion of recreational facilities that might have an adverse effect on the environment. Therefore, there will be no impact on recreation. (Source: IX. 1, 2, 3, 6, 14)

16. **Transportation/Traffic:** The project is located off of 17-Mile Drive and is accessed from an existing asphalt driveway. The project includes a new fence, a new underground garage, and the re-alignment of the driveway for an existing single family dwelling to provide a safer entrance to the site for the residence and fire department personnel. The proposed project is consistent with the Del Monte Forest Land Use Plan circulation policies and the 2010 Regional Transportation Plan for Monterey County because the project includes the realignment of a driveway; no intensification of use or access is proposed. The project is not located within airport land use plan or within two miles of a public airport or public use airport; therefore the project will not result in a change of air traffic patterns. The new driveway alignment decreases the hazards found with the existing driveway by improving sight distance to and from the project site. Therefore, the new driveway alignment will provide better emergency access to the project site. The driveway re-alignment is replacing an existing driveway; therefore, the project will not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. Therefore, there will be no impact to transportation or traffic. (Source IX 1, 3, 6, 14)

17. **Utilities/Service Systems**: The proposed project involves the construction of a non-habitable accessory structure (garage) and the realignment of a driveway on an existing, developed, residential lot that will not cause a change in water use or wastewater flow from the property. No new water fixtures are proposed (Source IX. 1). The project will not exceed wastewater treatment capacity nor create sufficient demand to warrant construction of new wastewater treatment facilities. The Carmel Area Wastewater District (CAWD) treatment facility has a capacity of three million gallons per day, and currently operates at approximately 67% of capacity. Moreover, the Pebble Beach Community Services District (PBCSD) retains rights to one-third of the CAWD treatment facility capacity (or one million gallons per day), and currently uses approximately 50% of that capacity. Similarly, the amount of solid waste generated by the proposed project would not impact the area's solid waste facilities. Utilities such as electricity and phone service are already in place and the construction of a non-habitable accessory structure would not create a sufficient demand to warrant the expansion of the current infrastructure (Source: IX. 1). Therefore, there will be no impact on utilities or service systems.

such as electricity and phone service are already in place and the construction of a non-habitable accessory structure would not create a sufficient demand to warrant the expansion of the current infrastructure (Source: IX. 1). Therefore, there will be no impact on utilities or service systems.

B. DETERMINATION

On the basis of this initial evaluation:

☐ 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 significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR 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, nothing further is required.

Delinda Robinson — Signature

June 25, 2012 — Date

Delinda Robinson, Senior Planner — June 25, 2012

V. EVALUATION OF ENVIRONMENTAL IMPACTS

1) A brief explanation is required for all answers except "No Impact" answers that are 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

2) All answers must take into account the whole action involved, including offsite as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) 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, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "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 mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) The explanation of each issue should identify:

   a) The significance criteria or threshold, if any, used to evaluate each question; and
   b) The mitigation measure identified, if any, to reduce the impact to less than significance.

VI. ENVIRONMENTAL CHECKLIST

1. AESTHETICS **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista? (Source: 1, 3, 6, 14)	☐	☒	☐	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? (Source: 1, 2, 3, 6, 14)	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings? (Source: 1, 2, 3, 6)	☐	☒	☐	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? (Source: 1, 2, 3, 6, 14)	☐	☐	☒	☐

Discussion/Conclusion/Mitigation:

Aesthetics 1 (a): Less than Significant with Mitigation

The site is located between 17-Mile Drive and a coastal bluff (Pacific Ocean) within the Del Monte Forest Land Use Plan area. The site contains an existing single-family dwelling and driveway approximately 160 feet long that is accessed directly off of 17-Mile Drive. The proposed project includes the construction of a detached 1,070 square foot four-car garage with planted roof (green roof), a new permeable cobblestone driveway, the replacement of an existing wood fence with a new stone (tan, taupe & grey) wall with antique bronze open design inserts, grading of approximately 550 cubic yards of cut and 200 cubic yards of fill and the removal of one 7" Monterey cypress.

The project site is identified on the LUP Visual Resources Map (Map 2C) as part of the view area from 17-Mile Drive. The site of the Lone Cypress which is a designated scenic vista, is located immediately east of the site. Views from 17-Mile Drive are considered to be valuable scenic and visual resources that are protected within the Del Monte Forest Plan. LUP Policy No. 122 (Public Access) states that existing visual access from 17-Mile Drive and from major turnouts along the Drive shall be permanently protected as an important component of shoreline access and public recreational use. The policy guidance statement for Scenic and Visual Resources in the LUP recognizes the value of the areas magnificent scenic and visual resources and states that the objective of the plan is to "encourage improvements which complement the natural scenic assets and enhance the public enjoyment of them". LUP Policy 59 specifically requires that "New development, including ancillary structures such as fences constructed between 17-Mile Drive and the sea . . . be designed and sited to minimize obstruction of views from the road to the sea. Examples of methods to reduce obstruction include, but are not limited to the following: height limits, use of see-through materials for fences, limitations on landscape materials which would block views."

Figure 2: Portion of Existing View from 17-Mile Drive (northwest portion)

Figure 3: Portion of Existing View from 17-Mile Drive (northeast portion)

There is an existing approximately 4.5 to 6 foot tall wood "grapestake" fence at the front of the property along 17-Mile Drive, with an approximately 35 foot long section of shorter wire fence along the northeastern end. The view of the ocean from 17-Mile Drive varies as you drive along 17-Mile Drive passing the residence, but the ocean is visible through the Monterey cypress forest along almost the entire frontage. The existing wood fence design is such that, due to the spacing

between the stakes between the existing driveway and the neighboring property to the east, viewers are able to see not only over the fence, but to see glimpses through it as well. This allows the viewer to see the ocean within the context of the forest rather than just open water above the fence. The project includes the replacement of the existing fence with a new stone wall that will be 4 to 6 feet tall as measured from the finished grade, with 12.5 foot long sections of antique bronze fencing inserted at 6 locations along the wall, and antique bronze fencing with stone pillars at the new driveway entrance. The antique bronze fencing is designed to allow full views across the site to the ocean. Of the approximately 410 foot front property line, 134 feet or a little over one third of the length will be open design fencing. Construction of the wall will require excavation for the footings and the applicant proposes to raise the existing grade up to two feet, resulting in a wall that is taller than the existing fence in some places. However, the sections of open design fencing will allow full views through the site to the ocean in areas where the current view is only over the top of the existing wood fence.

On July 7, 2011, the Del Monte Forest Land Use Advisory Committee reviewed and recommended approval of an earlier proposal for the wall and fencing that included only five 9-foot long fenced openings, a much taller wall than the existing wood fence on the northeastern end and no fenced openings on the northeastern end. The applicant has agreed to modify the project to lower the height of the wall by one foot on the northeastern end, to increase the number of fenced openings from 5 to 6 (adding an opening on the northeastern end) and to increase the length of the fenced openings from 9 feet to 12.5 feet as described above. The applicant has submitted a visual simulation **(See Attachment 5)** of the modified project but has not yet submitted revised plans. Construction of the wall as originally proposed would adversely impact the existing scenic vista. Implementation of Mitigation Measure No. 1 will reduce this impact to less than significant.

Figure 4: Fence design at entrance

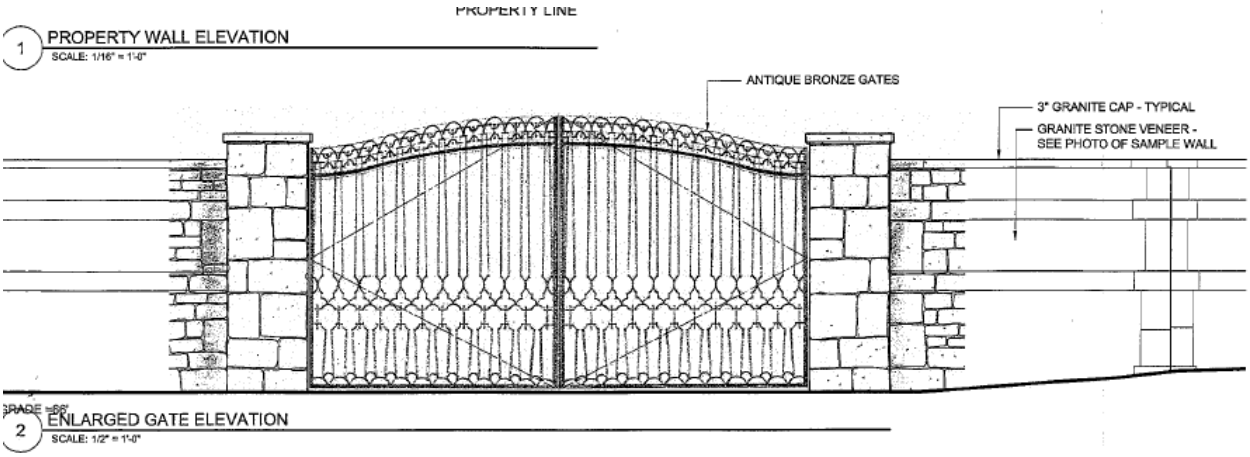
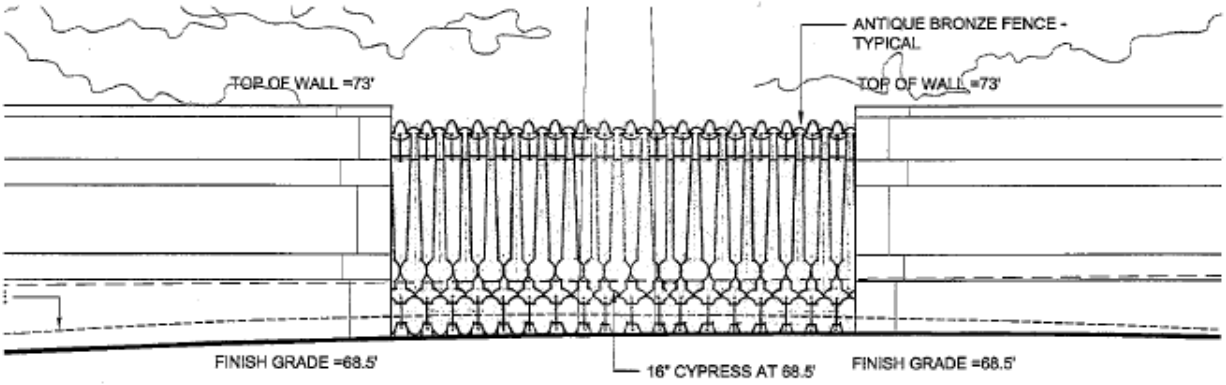


Figure 5: Fence design at opening



Mitigation Measure No. 1: In order to prevent adverse impacts to the existing scenic vista and to the scenic character of the site due to the replacement of the existing fence and to ensure that the project complies with the Visual Resources and Public Access policies of the Del Monte Forest Land Use Plan, the proposed wall/fencing along 17-Mile Drive shall be designed and sited to minimize obstruction of views from the road to the sea. The proposed wall/fencing shall be designed so as to not impair views from 17-Mile Drive over the existing condition. Prior to the issuance of a building or grading permit, the applicant/owner shall submit revised plans for the wall/fencing to the RMA-Planning Department for review and approval that are consistent with the visual simulation provided to the County on June 21, 2012 including: 1) the top of the wall/fencing in Section A (between new driveway entrance and neighboring property to the northeast) as shown on the visual simulation shall be one foot lower than shown on the plans that were recommended for approval by the Del Monte Forest Land Use Advisory Committee on July 7, 2011; 2) the number of antique bronze fenced sections shall be increased from 5 to 6, with the additional section being located between the new driveway entrance and the neighboring property to the northeast; and 3) the open design fenced openings shall be increased from 9 feet long to 12.5 feet long.
Monitoring Action No. 1: Prior to the issuance of a building or grading permit, the applicant/owner shall submit revised plans for the wall/fencing to the RMA-Planning Department for review and approval as described in this Mitigation Measure.
Monitoring Action No. 2: Prior to final inspection the applicant/owner shall submit photographic evidence that the replacement fencing has been constructed in accordance with the approved plans to the RMA-Planning Department for review and approval.

Additionally, approximately 20 young Monterey cypress trees of non-indigenous stock have been planted along the inside of the fence line from the northwest corner of the property to the opening for the existing driveway. As discussed in Section VI.4 below, the site is within the environmentally sensitive, indigenous range of the Monterey cypress and the planting of non-indigenous Monterey cypress trees in this area is harmful to the native forest (see Section VI.4b below for further discussion). If allowed to remain, these trees will eventually entirely block the views of the ocean from 17-Mile Drive, which would adversely impact the existing scenic vista. Implementation of Mitigation Measure No. 2 will reduce this impact to less than significant.

Mitigation Measure No. 2: In order to prevent adverse impacts to the existing scenic vista and to the scenic character of the site due to the planting of Monterey cypress trees of non-indigenous stock along the front fence line and to prevent adverse impacts to the native Monterey cypress forest, the applicant/owner shall remove all such recently planted trees from the property. The trees shall be removed under the supervision of a qualified arborist to ensure that only non-indigenous trees are removed.

Monitoring Action No. 2: Prior to the issuance of a building or grading permit, the applicant/owner shall submit evidence to the RMA-Planning Department that all recently planted non-indigenous Monterey cypress trees on the property have been removed. Such evidence shall consist of a letter from a qualified arborist describing the number and location of the trees that were removed.

Aesthetics 1 (b): No Impact

The project site is located in Pebble Beach, where all of the roadways are private. The site is not visible from any Officially Designated or Eligible State Scenic Highway. The section of Highway 1 in this area and the section of Highway 68 from Highway 1 to the Salinas River are both Designated State Scenic Highways but the project site is visible from neither. There would be no impact.

Aesthetics 1 (c): Less than Significant with Mitigation

The existing visual character of the site is that of a forested area with views through the openings between the trees to the ocean. Some areas are more heavily forested, but the ocean is visible along the entire length of the property. The site itself defines the character. The site slopes sharply down from the road to the bluff above the beach with a 30 to 35 foot change in elevation across the parcel. The existing single-story residence is sited approximately 20 feet lower than and 100 feet away from the road, nestled in among the trees. The project would permanently alter the appearance of the site by replacing the existing wood fence with a stone wall, with see-through antique bronze fencing at the gate and six other 12.5-foot long sections. However, as discussed in Section 1(a) above, the fenced openings will allow for full views through the site to the ocean. Implementation of Mitigation Measure No. 1 above would ensure that the wall/fence is built as per the agreed upon modifications and will reduce the impact on the visual character of the site to less than significant.

Aesthetics 1 (d): Less than Significant

The proposed garage will be built into the slope below 17-Mile Drive and will face away from the Drive toward the house. There will be no windows in the garage and exterior lighting will be blocked from ocean views by the residence and the forest and from 17-Mile Drive by the fence, topography and vegetation. Therefore, potential impacts from exterior lighting on adjacent properties and/or views would be minimized by design. In-ground lighting is proposed at the gate. The proposed project would be required to comply with County General Plan Policy 26.1.20, which requires that "All exterior lighting shall be unobtrusive and constructed or located so that only the intended area is illuminated, long range visibility is reduced, and offsite glare is fully controlled." In addition, a standard County Condition of Approval would require preparation of an Exterior Lighting Plan, subject to review and approval by the Resource Management Agency Planning Department. Pursuant to implementation of County Conditions of Approval, the project is consistent with the Del Monte Forest LUP Scenic and Visual

Resources policies. The project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. The impact would be less than significant.

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2. AGRICULTURAL AND FOREST RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Discussion/Conclusion/Mitigation:

Agricultural/Forest Resources: No Impact – See Section IV.2 for discussion.

3. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	☒
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	☒
d) Result in significant construction-related air quality impacts?	☐	☐	☐	☒
e) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
f) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

Discussion/Conclusion/Mitigation:

Air Quality - No Impact – See Section IV.3 for discussion.

4. BIOLOGICAL RESOURCES Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? (Source: 1, 3, 6, 7, 8, 9, 14)	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or US Fish and Wildlife Service? (Source: 1, 3, 6, 7, 8, 9, 14)	☐	☒	☐	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? (Source: 1, 3, 6, 7, 8, 14)	☐	☐	☐	☒
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? (Source: 1, 3, 6, 7, 8, 14)	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? (Source: 1, 3, 6, 7, 8, 14)	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? (Source: 1, 3, 6, 7, 8, 14, 16, 17)	☐	☐	☐	☒

Discussion/Conclusion/Mitigation:

Biological Resources 4(a) and (b) – Less than Significant With Mitigation

According to the Biological Reports prepared for this property, sensitive species on the site include: 1) Monterey cypress (*Cupressus macrocarpa*); 2) Monterey pine (*Pinus radiata*); 3) Small-leaved lomatium (*Lomatium parvifolium);* and 4) Ocean bluff milk vetch (*Astragalus nuttallii var. nuttallii).* Additionally, Monterey cypress habitat (the combination of native plants that make up the understory growing with the cypress) which itself is a threatened habitat, is located on the property.

The entire property is covered by a native Monterey cypress grove that is dominated by Monterey cypress with occasional Monterey pines. The understory of the Monterey cypress forest has been colonized by numerous non-native species that have crowded out large areas of native plants, reducing the diversity and habitat value of the understory. Approximately 20 young Monterey cypress trees of stock that is not indigenous to Pebble Beach have been planted along the fence at the front of the property. The introduction of these trees could eventually result in cross-breeding with the rare, native Monterey cypress in the area. This would be an adverse impact to the Monterey cypress forest, not just on the subject parcel, but in the surrounding forest as well. The implementation of Mitigation Measure No. 2 above will reduce the impact to the forest to less than significant.

Three trees are located within the footprint of the proposed development and will be removed: two dead Monterey pines and one 7-inch Monterey cypress. The young cypress will be relocated on the site. According to the Tree Resource Construction Impact Analysis prepared for the project (LIB120030), the proposed project could impact the Critical Root Zone of at least 30 trees. Grading for the garage and new driveway, excavation of footings for the wall and removal and restoration of the existing driveway and paths, all have the potential to damage trees. Monterey cypress have a low tolerance to construction related impacts and Monterey pine, a moderate tolerance to construction related impacts. Additionally, the project biologist identified 86 Small-leaved lomatium and 2 Ocean bluff milk-vetch plants, both California Native Plant Society List 4.2 species, within the proposed new development area.

Pursuant to LUP Policies 13 and 17, the applicant will be required to place the environmentally sensitive habitat areas in a conservation and scenic easement to provide for continued protection of the resources.

Implementation of Mitigation Measure Nos. 3, 4, 5 and 6 will reduce the impacts to sensitive species and habitats to less than significant.

> **Mitigation Measure No. 3:** In order to prevent adverse impacts to trees, prior to the issuance of a construction permit, a qualified arborist shall supervise the installation of the tree protection measures as set forth in the Tree Resource Evaluation Construction Impact Analysis (LIB120030) prepared by Maureen Hamb, dated June 2011 (arborist report). Such tree protection measures shall remain in place throughout construction and shall not be removed until all construction activities are complete. If there is any potential for damage, all work must stop in the area and a report, with mitigation measures, shall be submitted by a certified arborist. Should any additional trees not included in this permit be harmed, during grading or construction activities, in such a way where removal is required, the owner/applicant shall obtain required permits. When access to the protected areas becomes necessary, it shall be reviewed by both the contractor and the project arborist, and the arborist shall have the authority to supervise such access. Stockpiling of materials or parking within the critical root zone of trees shall not be allowed. The text of this measure shall be included as a note on the construction plans.
>
> **Monitoring Action No. 3a**: Prior to the issuance of a grading or building permit, the applicant/owner shall submit proof to the RMA-Planning Department that the tree

protection measures have been installed as prescribed. Such proof shall be in the form of a letter from the arborist and photographs of the protection measures in place. The owner/applicant shall submit evidence that the text of this measure appears as a note on the construction plans.

Monitoring Action No. 3b: Prior to final inspection, the applicant/owner shall provide verification from the arborist that the tree protection measures have been successful. If additional mitigation measures are determined to be required, they shall be formulated and implemented by the monitoring arborist, after review and approval by the RMA - Planning Department.

Mitigation Measure No. 4: In order to prevent adverse impacts to trees located in close proximity to the project due to construction activities, a qualified arborist shall be present during all excavation and soil disturbing activities associated with grading, construction and restoration conducted within the critical root zone (CRZ) of any tree. The CRZ for each tree is included in the arborist report prepared for the project. Roots greater than one inch will be inspected and evaluated by the project arborist. If necessary, as determined by the arborist, the root will be retained, wrapped in protective material (foam pipe wrap) and bridged to the specifications of the arborist. The arborist shall supervise or perform the pruning of any tree roots as necessary. The arborist shall have the authority to require such special construction methods as he/she determines are necessary to protect the trees, including but not limited to designing the wall footings to span over tree roots, tunneling under tree roots or placement of a grade beam above grade. If it appears to the arborist that any tree has experienced or will experience death or damage due to construction activities, all work shall stop within the CRZ of the tree and the arborist/owner/applicant shall immediately contact the RMA-Planning Department to determine whether additional permits or modification of the project is required.

Monitoring Action No. 4a: Prior to issuance of a construction permit, the applicant shall provide to the RMA-Planning Department a copy of the contractual agreement with a qualified arborist for review and approval.

Monitoring Action No. 4b: Prior to final inspection the applicant or arborist shall also submit evidence of on-site monitoring, including arborist certification regarding the success of the measures, to the RMA – Planning Department. If additional mitigation measures are determined to be required, they shall be formulated and implemented by the monitoring arborist, after review and approval by the RMA - Planning Department. The requirements of this measure shall be included as a note on all grading and building plans.

Mitigation Measure No. 5:

In order to mitigate for the removal of sensitive plant species on the site the following re-planting measures shall apply:

1. Small-leaved lomatium: all of the lomatium plants located within the area of the proposed driveway and garage (minimum of 86 plants) shall be salvaged from the site prior to the issuance of a grading or building permit and grown out by a reputable native plant nursery familiar with the growing requirements of the Small-leaved lomatium. The

salvaged lomatium shall be re-planted on the site in the fall months to coincide with the arrival of the rainy season.

2. Ocean bluff milk-vetch: Ocean bluff milk-vetch seed shall be collected from several locations on the property to ensure genetic diversity and shall be propagated for a fall out-planting. The plants shall be replaced on the site at a 3:1 ratio (minimum of 6 plants), as recommended by the project biologist.

3. Monterey pine: Any Monterey pine tree saplings removed from the construction zone shall be re-planted on the site.

4. Monterey cypress: The one Monterey cypress that is located within the footprint of the proposed garage shall be transplanted to another location on the site under the supervision of a qualified arborist. Any native Monterey cypress seedlings or saplings that are removed from the footprint of the proposed development shall be transplanted to another location on the site under the supervision of a qualified arborist.

Mitigation revegetation locations for Items 1 and 2 shall be determined by the project biologist in consultation with the project arborist. Mitigation revegetation locations for Items 3 and 4 shall be determined by the project arborist. The re-planting plan shall be submitted to the RMA-Planning Department for review and approval prior to issuance of a grading or building permit. The applicant/owner shall submit a monitoring report prepared by the project biologist documenting the success of the planting to the RMA-Planning Department 6 months after the initial planting and then annually for 2 years. The replanting shall be considered successful when 95 percent of replanted trees and 85 percent of other planted native vegetation have survived and are evaluated by the project biologist and project arborist as being in good health. In the event of loss of plant materials due to mortality, the plants shall be replaced and the monitoring shall begin again.

Monitoring Action No. 5a:

Prior to the issuance of grading or building permit, applicant/owner shall submit the planting/restoration plan to the RMA-Planning Department for review and approval.

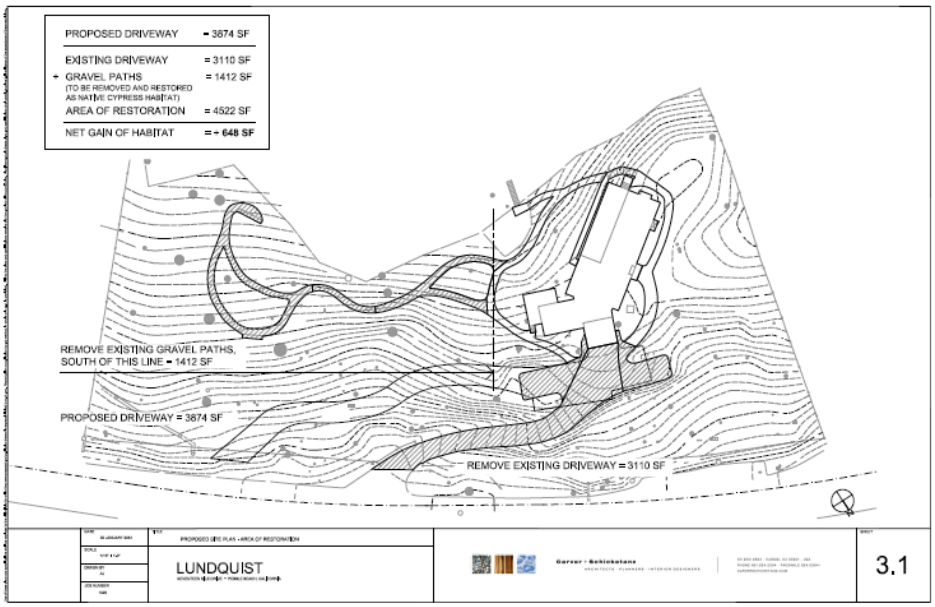
Monitoring Action No. 5b:

Prior to final inspection, the applicant/owner shall submit evidence to the RMA-Planning Department that the planting plan has been implemented.

Monitoring Action No. 5c:

The applicant/owner shall submit monitoring report prepared by a qualified biologist 6 months after the evidence required in 5b above has been submitted and then annually for a minimum of 2 years or until the replanting has been deemed successful. The monitoring reports shall include an evaluation of the health status of the plantings and recommendations regarding measures to improve the success of the plantings if they are not thriving. The applicant/owner shall implement the recommendations. The requirement for monitoring reports shall end after 2 ½ years or whenever the required success rate of 95 percent survival for trees and 85 survival percent for other vegetation, has been met, whichever occurs later.

Figure 6: Proposed Cypress Habitat Restoration Areas



Mitigation Measure No. 6:

To mitigate for the removal of native Monterey cypress habitat, the applicant/owner shall prepare and implement a Monterey Cypress Habitat restoration plan for the existing asphalt driveway and the existing gravel paths and parking areas and all other areas that will be disturbed due to construction. The restoration plan shall be prepared by a qualified biologist in consultation with a qualified arborist and shall include measures to protect adjacent Monterey cypress trees during the restoration. Installation of the restoration plan shall be done under the supervision of a qualified biologist. The restoration plan shall also include a planting plan that includes mulching, the installation of Monterey cypress trees propagated from trees indigenous to Pebble Beach, appropriate Monterey cypress forest understory plants and a plan for the eradication of non-native species. Plants and seeds shall consist of appropriate local ecotypes of plant species and site-specific seed and/or cuttings shall be utilized. It is not expected that restoration to native Monterey cypress habitat will require excessive plantings. The removal of non-native species and installation of mulch and minimal appropriate native plantings to allow native understory plants to regenerate in areas that do not require erosion control plantings is preferable. The applicant/owner shall submit a monitoring report prepared by the project biologist documenting the success of the restoration to the RMA-Planning Department 6 months after the initial planting and then annually for 2 years. The restoration shall be considered successful when 95 percent of replanted trees, 85 percent of other planted native vegetation have survived and are evaluated by the project biologist and project arborist as being in good health, and 100 percent of non-native invasive plants within the restoration areas have been eradicated. In the event of loss of plant materials due to mortality, the plants shall be replaced and the monitoring shall begin again.

Monitoring Action No. 6a:

Prior to the issuance of a grading or building permit, the applicant/owner shall submit the Monterey Cypress Habitat Restoration Plan and a copy of the contractual agreement with a qualified biologist for review and approval to the RMA-Planning Department for review and approval.

Monitoring Action No. 6b:

Prior to final inspection, the applicant/owner shall submit a report to the RMA-Planning Department from the project biologist documenting that the restoration plan has been implemented.

Monitoring Action No. 6c:

The applicant/owner shall submit monitoring report prepared by a qualified biologist 6 months after the evidence required in 5b above has been submitted and then annually for a minimum of 2 years or until the restoration has been deemed successful. The monitoring reports shall include an evaluation of the health status of the plantings and recommendations regarding measures to improve the success of the plantings if they are not thriving. The applicant/owner shall implement the recommendations. The requirement for monitoring reports shall end after 2 ½ years or whenever the required success rate of 95 percent survival for trees and 85 survival percent for other vegetation, has been met, whichever occurs later.

Biological Resources 4(c): No impact

The project site does not contain any federally protected wetlands as defined by Section 404 of the Clean Water Act. The site slopes fairly steeply from the road to the coastal bluff and no wetlands were noted on the site in the Biological, Arborist or Geotechnical reports prepared for the project. Therefore, there would be no impact.

Biological Resources 4(d): Less than Significant With Mitigation

Because the project will involve some tree removal and the site location is in the midst of a forest, there is a potential to impact nesting migratory birds. Migratory birds are protected under the Federal Migratory Bird Treaty Act and the California Fish and Game Code. This is considered a potentially significant impact. The implementation of Mitigation Measure No. 7 above will reduce the impact to less than significant.

Mitigation Measure No. 7:

In order to minimize potential biological impacts to animal resources and habitat, prior to the commencement of work, the project biologist shall perform a preconstruction survey for special status plant and wildlife species, including nesting birds. There shall be no removal of a special status species without prior approval of the RMA-Planning Department. For any tree removal activity that occurs during the typical bird nesting season (February 22-August 1), the County of Monterey shall require that the project applicant retain a County qualified biologist to perform a nest survey in order to determine if any active raptor or migratory bird nests occur within the project site or within 300 feet of proposed tree removal activity. During the typical nesting season, the survey shall be conducted no more than 30 days prior to ground disturbance or tree removal. If nesting birds are found on the project site, an appropriate buffer plan shall be established by the project biologist. Limits of construction to

avoid an active nest shall be established in the field with flagging, fencing, or other appropriate barriers, and construction personnel.

Monitoring Action No 7a:

Prior to issuance of a grading or building permit, applicant/owner shall submit a copy of the contract with a biologist to perform the pre-construction surveys to the RMA-Planning Department.

Monitoring Action No. 7b:

No more than 30 days prior to ground disturbance or tree removal, the Owner/Applicant/Tree Removal Contractor shall submit, to the RMA-Planning Department, a nest survey prepared by a County qualified biologist to determine if active raptor or migratory bird nests occur within the project site or immediate vicinity.

Monitoring Action No. 7c:

If active raptor or migratory bird nests are present, the project biologist shall establish an appropriate buffer plan around the nests and limits of construction shall be established in the field.

Biological Resources 4(e): Less than Significant

As discussed above, the project site is located within the rare and environmentally sensitive Monterey cypress habitat and the project site supports Monterey cypress, Monterey pine, Ocean bluff milk-vetch and Small-leaved lomatium, all sensitive plant species. The policies of the Del Monte Forest LUP protect environmentally sensitive plants and habitats. As designed and subject to the requirements of Mitigation Measures 3-7 above, the project would be consistent with all local policies and ordinances protecting biological resources. The impact would be less than significant.

Biological Resources 4(f): No Impact

As discussed below in Section 10(c), the project site is not within the boundaries of any adopted Habitat Conservation Plan or Natural Community Conservation Plan. Based on research of County records, the project site is also not located within any other approve local, regional, or state habitat conservation plan. There would be no impact.

5. CULTURAL RESOURCES **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in 150645? (Source: 1, 3, 6, 10, 14)	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5? (Source: 1, 3, 10)	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? (1, 2, 3, 6, 10, 11)	☐	☐	☐	☒

5. CULTURAL RESOURCES Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Disturb any human remains, including those interred outside of formal cemeteries? (1, 2, 3, 10)	☐	☒	☐	☐

Discussion/Conclusion/Mitigation:

Cultural Resources 5(a & c) – No Impact According to County records, no historical sites are known to be on or in the immediate vicinity of the project area and no existing structures on the site will be affected by the project. The project site does not contain historical resources and would not cause a substantial adverse change in a significant historical resource. In addition, no paleontological resources or unique geologic features are identified as associated with this site. No impacts would occur to historical resources, paleontological resources, or unique geologic features.

Cultural Resources 5(b) and (d) – Less than Significant with Mitigation Incorporated
The proposed project will involve ground disturbance consisting of grading for the new driveway and garage, removal and restoration of the existing driveway, removal and restoration of existing gravel paths and excavation for the footings for the proposed wall/fence. County records identify the project site is within an area of high archeological sensitivity, and the project includes a Coastal Development Permit to allow development within 750 feet of a known archaeological resource. No known cemeteries or burial sites are located on the project parcel. According to the Archaeological Report prepared for the project, more than 10 archaeology sites are located in the area between Cypress Point and Pescadero Point, and human burials were encountered at many of them. The archaeological reconnaissance conducted for the project reported a previously recorded midden site present on the project parcel. The recorded site is located at a lower elevation than the proposed construction but marine shell fragments were found in the area where the driveway is to be realigned. The archaeologist states that based on past experience, it is unlikely that excavation for the proposed construction will reveal a deeper layer of the site, but recommends that a qualified archaeologist monitor all ground disturbing activities to ensure that no resources are accidentally damaged or destroyed. Implementation of Mitigation Measure Nos. 8 and 9 will reduce the potential impact to cultural resources to less than significant.

> **Mitigation Measure No. 8:** 1) In order to prevent adverse impacts to cultural resources, a qualified archaeological monitor shall be present during excavation and soil disturbing activities associated with: a) the excavation for the new driveway, fence, and garage; and b) removal and restoration of the existing driveway and paths. 2) The monitor shall have the authority to temporarily halt work to examine any potentially significant materials. 3) If human remains are identified, work shall be halted to within a safe working distance, the Monterey County Coroner must be notified immediately and if said remains are determined to be Native American, the Native American Heritage Commission shall be notified as required by law. 4) If potentially significant, archaeological resources are discovered, work

shall be halted in the area of the find until it can be evaluated and, in consultation with the lead agency, appropriate mitigation measures be formulated and implemented. 5) If suitable materials are recovered, a minimum of two samples shall be submitted for radiocarbon dating in order to provide a basic chronology of the site. 6) If intact, significant features should be encountered, the archaeologist shall recommend appropriate mitigation measures. Features are human burials, hearths, house floors, caches of stone tools. A feature is artifactual and cannot be moved but must be documented in place, *in situ.* 7) A monitoring report shall be produced by the qualified archaeologist to document any findings and to evaluate the significance of the cultural resource. 8) The applicant shall retain a qualified archaeologist to monitor and ensure conduct of the requirements of the mitigation and monitoring plan.

Monitoring Action No. 8:
Prior to issuance of a construction permit, the applicant shall provide to the RMA-Planning Department a copy of the contractual agreement with a qualified archaeologist for review and approval. The applicant or archaeologist shall also submit evidence of on-site monitoring, including archaeologist certification, to the RMA – Planning Department. If additional measures are determined to be required to minimize impacts, they shall be formulated by a qualified archaeologist, reviewed and approved by the RMA-Planning Department, and implemented by the monitoring archaeologist. The requirements of this measure shall be included as a note on all grading and building plans.

Mitigation Measure No. 9:
During demolition, construction and restoration, the archaeological site shall be protected with exclusionary fencing to minimize the potential for unanticipated impacts to cultural resources.

Monitoring Action No. 9:
Prior to the issuance of a demolition permit, the applicant shall submit evidence of exclusionary fencing to the RMA-Planning Department for review and approval. The requirements of this measure shall be included as a note on all grading and building plans.

6. GEOLOGY AND SOILS **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. (1, 2, 3, 11, 14, 19)	☐	☐	☐	☒

6. GEOLOGY AND SOILS **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
ii) Strong seismic ground shaking? (Source: 1, 2, 3, 11)	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction? (Source: 1, 2, 3, 11)	☐	☐	☐	☒
iv) Landslides? (Source: 1, 2, 3, 11, 14)	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil? (Source: 1, 2, 3, 11, 14)	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? (1, 2, 3, 11, 14)	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Chapter 18A of the 2007 California Building Code, creating substantial risks to life or property? (1, 11, 14, 18)	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? (1)	☐	☐	☐	☒

Discussion/Conclusion/Mitigation:

Geology and Soils 6(a) (i, iii, iv): No Impact

The Monterey County GIS database indicates that the site is not located within 1/8 of a mile of any known faults therefore there will be no impact from rupture of an earthquake fault. The Geotechnical Report prepared for the project finds that the soils at the project location are stable decomposed granite underlain by bedrock. The Geotechnical Report further states that the potential for liquefaction is nil due to the bedrock nature of the site. The Monterey County GIS database indicates that the site has a low potential for landslides and the Geotechnical Report finds that there would be no impact from landslides. There will be no impact.

Geology and Soils 6(a) (ii): Less than significant

The Geotechnical Report prepared for the project, based on review of the site and applicable literature, did not observe nor identify any significant, site specific geological hazards. Although the project site would be exposed to ground-shaking from any of the faults that traverse Monterey County, the project would be required to be constructed in accordance with applicable seismic design parameters in the California Building Code, which would reduce the impact from seismic ground shaking to less than significant.

Geology and Soils 6(b): Less than significant

The site includes slopes that range from 15 percent to over 30 percent. The removal of the existing asphalt driveway and gravel paths and restoration of those areas, as well as the construction of the wall/fence and new garage will involve disturbance on slopes over 30 percent. Pursuant to implementation of County ordinances and standard Conditions of Approval, required by the County's grading and erosion control ordinances related to grading and soil erosion prevention, impacts due to soil erosion or the loss of topsoil would be less than significant.

Geology and Soils 6(c): No impact
The Geotechnical Report prepared for the project did not identify any unstable soil or geologic unit or that would become unstable as a result of the project and potentially result in a landslide, lateral spreading, subsidence, liquefaction or collapse. There would be no impact.

Geology and Soils 6(d): Less than significant
The Geotechnical Report found that the soils on the site in the areas of proposed construction are decomposed granite, which is not expansive soil. However, the report recommends that in the event expansive or other undesirable soils are encountered during the grading phase, that those soils should be removed and replaced with engineered fill. Implementation of the standard condition requiring that the recommendations of the technical reports prepared for the project be adhered to will address the issue of expansive soils. The impact will be less than significant.

Geology and Soils 6(e): No impact
The existing residence is connected to the Pebble Beach Community Services District public sewer and wastewater from the site goes to the Carmel Area Wastewater District treatment facility. No on-site wastewater disposal exists on the site, nor is any proposed as part of the current project. There will be no impact.

7. GREENHOUSE GAS EMISSIONS **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? (Source: 1, 5)	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? (1, 2, 3, 5)	☐	☐	☐	☒

Discussion/Conclusion/Mitigation:
Greenhouse Gas Emissions 7(a): Less than Significant The Office of Planning and Research (OPR) is the state-wide, comprehensive planning agency that is responsible for making policy recommendations and coordinating land use planning efforts. The OPR also coordinates the state-level review of environmental documents pursuant to the CEQA. Currently, the OPR's stance on greenhouse gases (GHG) significance thresholds has been to allow each lead agency to determine their own level of significance. At this time, the Monterey Bay Unified Air Pollution

Control District (MBUAPCD) has not finalized specific GHG thresholds of significance. On October 24, 2008, the California Air Resources Board (CARB) released their interim CEQA significance thresholds for GHG impacts dictating that a project would be considered less than significant if it meets minimum performance standards during construction and if the project, with mitigation, would emit no more than approximately 7,000 million metric tons of carbon dioxide per year during operation.

The proposed development could generate minimal amounts of greenhouse gases through removal of one live Monterey cypress tree (See VI.4) and two dead Monterey pine trees. Live trees process carbon dioxide and release oxygen back into the air, but also release CO_2 once removed and composted, or burned. However, the applicant proposes to replant the live tree on site, therefore the impact from tree removal is less than significant.

The primary source of criteria air pollutant and GHG emissions would stem from the use of heavy equipment, including large trucks and earth-movers, during construction of the new garage and driveway. However, heavy equipment use is anticipated to be intermittent and limited to site preparation, and some construction activities. Pollutant emissions resulting from heavy equipment use during construction are not anticipated to exceed significance thresholds established by the CARB for GHG because the duration of use is expected to be very limited. Moreover, once constructed, the project would not create any air emissions beyond those associated with current uses established on the property. Since the use of the property would not intensify beyond residential uses, the impacts would be less than significant.

Greenhouse Gases 7(b): No Impact As described previously, the project's construction and use emissions are below the applicable GHG significance thresholds established by CARB, and the MBUAPCD has no established GHG thresholds. The project would not conflict with any local or state GHG plans or goals. Therefore, there would be no impacts.

8. HAZARDS AND HAZARDOUS MATERIALS **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒
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?	☐	☐	☐	☒
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒

8. HAZARDS AND HAZARDOUS MATERIALS **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to 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?	☐	☐	☐	☒

Discussion/Conclusion/Mitigation:

Hazards and Hazardous Materials - No Impact – See Section IV.8 for discussion

9. HYDROLOGY AND WATER QUALITY **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☒
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)?	☐	☐	☐	☒

9. HYDROLOGY AND WATER QUALITY **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☒
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☐	☒
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f) Otherwise substantially degrade water quality?	☐	☐	☐	☒
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Discussion/Conclusion/Mitigation:
Hydrology and Water Quality No Impact – See Section IV.9 for discussion

10. LAND USE AND PLANNING Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community? (Source: 1, 2, 3, 6, 14)	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? (Source: 1, 2, 3, 4, 16, 17)	☐	☐	☒	☐
c) Conflict with any applicable habitat conservation plan or natural community conservation plan? (Source: 1, 2, 3, 16, 17)	☐	☐	☐	☒

Discussion/Conclusion/Mitigation:

Land Use and Planning 10(a): Less Than Significant

The project involves the construction of a new garage, realignment of a driveway and associated site improvements on an existing, developed residential lot. No new roads, bridges or structures which might serve to divide the community are proposed. There would be no impact.

Land Use and Planning 10(b): No Impact

The project was reviewed for consistency with the Monterey County 1982 General Plan (GP), the Del Monte Forest Land Use Plan (LUP), the Monterey County Coastal Implementation Plan, Part 5 (CIP), and Title 20 (Zoning Ordinance). The analysis contained in this Initial Study Checklist addressed the potential conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental impact. Based on this analysis, it was determined that the project could potentially have significant impacts on Aesthetics, Biological Resources and Cultural Resources.

Implementation of Mitigation Measures 1 and 2 are required to reduce impacts to scenic resources protected by the policies of the LUP and to ensure that visual access to these resources is maintained as required by the LUP. With the implementation of Mitigation Measures 1 and 2, the project is consistent with the goals of the LUP and is in conformance with the regulations and standards found in the CIP and Title 20. The impact would be less than significant.

Land Use and Planning 10(c): No Impact

According to the U.S. Fish and Wildlife Service listing of Habitat Conservation Plans (HCP) in California, this site is not located within the area of an HCP. According to the California Department of Fish and Game summary of Natural Community Conservation Plans (NCCP), the project site is not located within and NCCP. There would be no impact.

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

Discussion/Conclusion/Mitigation:

Mineral Resources: No Impact – See Section IV.11 for discussion

12. NOISE Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☒
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

12. NOISE Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Discussion/Conclusion/Mitigation:

Noise: No Impact – See Section IV.12 for discussion

13. POPULATION AND HOUSING Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion/Conclusion/Mitigation:

Population and Housing: No Impact – See Section IV.13 for discussion

14. PUBLIC SERVICES Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a) Fire protection?	☐	☐	☐	☒
b) Police protection?	☐	☐	☐	☒
c) Schools?	☐	☐	☐	☒
d) Parks?	☐	☐	☐	☒
e) Other public facilities?	☐	☐	☐	☒

Discussion/Conclusion/Mitigation:
Public Services: No Impact – See Section IV.14 for discussion

15. RECREATION Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Discussion/Conclusion/Mitigation:

Recreation: No Impact – See Section IV.15 for discussion

16. TRANSPORTATION/TRAFFIC **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☐	☒
b) Conflict with the goals, objectives, and policies of the 2010 Regional Transportation Plan for Monterey County, including, but not limited to level of service standards and travel demand measures, or other standards established by the Transportation Agency for Monterey County (TAMC) for designated roads or highways?	☐	☐	☐	☒
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

Discussion/Conclusion/Mitigation:

Traffic/Transportation: No Impact – See Section IV.16 for discussion

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

Discussion/Conclusion/Mitigation:

Utilities and Service Systems: No Impact – See Section IV.17 for discussion

VII. MANDATORY FINDINGS OF SIGNIFICANCE

NOTE: If there are significant environmental impacts which cannot be mitigated and no feasible project alternatives are available, then complete the mandatory findings of significance and attach to this initial study as an appendix. This is the first step for starting the environmental impact report (EIR) process.

Does the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) 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? (Source: 1, 2, 3, 4, 6, 7, 8, 9, 10, 12, 14, 16, 17)	☐	☒	☐	☐
b) 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)? (Source: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19)	☐	☐	☐	☒
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? (Source: 1, 2, 3, 4, 5, 6, 11, 12, 13, 14, 15, 18, 19)	☐	☒	☐	☐

Discussion/Conclusion/Mitigation:

Mandatory Findings of Significance VII(a): Based upon the analysis throughout this Initial Study, the project may 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. The biological resources analysis above indicates that there are special status plants and a sensitive natural community on the site that is considered to be environmentally sensitive habitat (ESHA). The cultural resources analysis indicates that the site does contain a potentially significant cultural, archaeological, or historical resource as defined by the California Environmental Quality Act (CEQA). With implementation of the mitigation measures identified in Sections VI.4 and VI.5, impacts to these resources will be less than significant.

Mandatory Findings of Significance VII(b): No Impact

The project involves development accessory to a residential use within a residentially-zoned district. As a result, impacts related to air quality, geology and soils, hazards and hazardous materials, hydrology and water quality, land use planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, and utilities and service systems attributable to the project would not result in intensification of the use of the site. As proposed and conditioned, implementation of the project would not result in impacts that are cumulatively considerable.

Mandatory Findings of Significance VII(c): Less than Significant With Mitigation

The project would result in no impacts to Traffic, Air Quality, Hazards and Hazardous Materials, Hydrology and Water Quality, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Transportation and Traffic or Utility and Service Systems. Construction related air quality impacts would be temporary and controlled by standard Conditions of Approval that require watering, erosion control, and dust control measures. No new traffic is anticipated to result from the construction of the new residential non-habitable accessory structures. The project as proposed would have no long-term impacts to air quality. Minimal additional lighting sources that would occur as a result of the new garage and fence would be required to comply with standard County Conditions of Approval. Implementation of the project would result in less than significant impacts to human beings, either directly or indirectly. Impacts to Geology and Soils would be less than significant due to the limited nature of the project. The project is located in an area identified in the land use plan as a valuable scenic resource. Construction of the project as proposed would have the potential to contribute to the cumulative degradation of views from 17-Mile Drive, so mitigation measures identified in Section VI.1 have been incorporated to reduce the impact of the project on Aesthetics. As proposed, conditioned and mitigated, the project would not have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly.

Note: Authority cited: Sections 21083 and 21083.05, Public Resources Code. Reference: Section 65088.4, Gov. Code; Sections 21080(c), 21080.1, 21080.3, 21082.1, 21083, 21083.05, 21083.3, 21093, 21094, 21095, and 21151, Public Resources Code; *Sundstrom v. County of Mendocino*, (1988) 202 Cal.App.3d 296; *Leonoff v. Monterey Board of Supervisors* (1990) 222 Cal.App.3d 1337; *Eureka Citizens for Responsible Govt. v. City of Eureka* (2007) 147 Cal.App.4th 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th at 1109; *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656.

VIII. FISH AND GAME ENVIRONMENTAL DOCUMENT FEES

Assessment of Fee:

The State Legislature, through the enactment of Senate Bill (SB) 1535, revoked the authority of lead agencies to determine that a project subject to CEQA review had a "de minimis" (minimal) effect on fish and wildlife resources under the jurisdiction of the Department of Fish and Game. Projects that were determined to have a "de minimis" effect were exempt from payment of the filing fees.

SB 1535 has eliminated the provision for a determination of "de minimis" effect by the lead agency; consequently, all land development projects that are subject to environmental review are

now subject to the filing fees, unless the Department of Fish and Game determines that the project will have no effect on fish and wildlife resources.

To be considered for determination of "no effect" on fish and wildlife resources, development applicants must submit a form requesting such determination to the Department of Fish and Game. Forms may be obtained by contacting the Department by telephone at (916) 631-0606 or through the Department's website at www.dfg.ca.gov.

Conclusion: The project will be required to pay the fee.

Evidence: Based on the record as a whole as embodied in the Planning Department files pertaining to PLN110144 and the attached Initial Study / Proposed Mitigated Negative Declaration.

IX. REFERENCES

1. Project Application/Plans;
2. 1982 Monterey County General Plan;
3. Del Monte Forest Land Use Plan (LUP) and Monterey County Coastal Implementation Plan, Part 5 (CIP);
4. Title 20 of the Monterey County Code (Zoning Ordinance);
5. CEQA Air Quality Guidelines, Monterey Bay Unified Air Pollution Control District, Revised February 2008;
6. Site Visits conducted by the project planner on April 1, 2011 and July 21, 2011;
7. "Biological Assessment of Richard and Melanie Lundquist Property APN: 008-472-006-000)" 2011 (LIB110215) prepared by Fred Ballerini dated May 18, 2011;
8. "Biotic Survey & Impact Assessment" (LIB080032) prepared by Jean Ferreira dated January 11, 2008;
9. "Tree Resource Evaluation Construction Impact Analysis" (LIB120030) prepared by Maureen Hamb, WCISA Certified Arborist dated June 2011;
10. "Preliminary Cultural Reconnaissance" dated April 2011 (LIB110216);
11. "Geotechnical Investigation for Proposed New Driveway Alignment, Site Wall and Detached 4-Car Garage, Lundquist property" (LIB110217) prepared by Haro Kasunich and Associates, dated May 2011;
12. State of California Department of Conservation Farmland Mapping and Monitoring Program Website, http://www.conservation.ca.gov/dlrp/fmmp/Pages/Index.aspx , accessed May 26, 2012;

13. State of California Department of Conservation, Monterey County Tsunami Inundation Maps Website, http://www.conservation.ca.gov/cgs/geologic_hazards/Tsunami/Inundation_Maps/Monterey/Pages/Monterey.aspx , accessed May 26, 2012;

14. Monterey County Planning Department GIS System;

15. Monterey County Code Chapter 10.60;

16. United States Fish and Wildlife Service Habitat Conservation Plan Page http://ecos.fws.gov/conserv_plans/PlanReportSelect?region=1&type=HCP, accessed May 28, 2012;

17. "Summary of Natural Community Conservation Plans (NCCPs), prepared by the California Department of Fish and Game, January, 2012;

18. "Soil Survey of Monterey County, California", published by the United States Department of Agriculture Soil Conservation Service in cooperation with the U.S. Forest Service and University of California Agricultural Experiment Station, Issued 1978.

19. "Fault Rupture Hazard Zones in California, Special Publication 42, Interim Revision 2007", published by the State of California Conservation Department, 2007.

Figure 1: Aerial Site Plan of Lundquist property

Figure 2: Portion of Existing View from 17-Mile Drive (northwest portion)

Figure 3: Portion of Existing View from 17-Mile Drive (northeast portion)

Figure 4: Fence design at entrance

Figure 5: Fence design at opening

Attachments:

1. "Biological Assessment of Richard and Melanie Lundquist Property APN: 008-472-006-000)" 2011 (LIB110215) prepared by Fred Ballerini dated May 18, 2011;
2. "Biotic Survey & Impact Assessment" (LIB080032) prepared by Jean Ferreira dated January 11, 2008;
3. "Tree Resource Evaluation Construction Impact Analysis" (LIB120030) prepared by Maureen Hamb, WCISA Certified Arborist dated June 2011;
4. "Geotechnical Investigation for Proposed New Driveway Alignment, Site Wall and Detached 4-Car Garage, Lundquist property" (LIB110217) prepared by Haro Kasunich and Associates, dated May 2011;
5. Visual simulation depicting height of wall/fence, prepared by Carver & Schicketanz, submitted to RMA-Planning Department on June 21, 2012.

ATTACHMENT 1

BIOLOGICAL ASSESSMENT

OF

RICHARD and MELANIE LUNDQUIST PROPERTY
APN: 008-472-006

Prepared for

Richard and Melanie Lundquist
3224 17 Mile Drive
Pebble Beach, CA 93953

Prepared by

Fred Ballerini
Fred Ballerini Horticultural Services
P.O. Box 1023
Pacific Grove, CA 93950
TEL 831.238.6832
fred@fredballerini.com

May 18, 2011

I. INTRODUCTION

This report has been authorized by Richard Lundquist (project owner) and Jay Auburn (project representative from Carver + Schicketanz Architects) on April 5, 2011.

This *biological assessment* report has been prepared to evaluate and document the biological resources present at the property of Richard and Melanie Lundquist located at 3224 17 Mile Drive in Pebble Beach, CA 93953. This report will consider the biological impacts of the proposed project, as well as measures designed to reduce the impacts of the driveway, garage and fence development to levels that will support the environmental resources of the property. The proposed development consists of a 1,095 square foot garage, realigning the entry and driveway (3,874 square feet), removal of an existing fence and construction of a new privacy wall along 17 Mile Drive. The parcel is supported by Cal American water.

II. REGIONAL SETTING

The project site is located along the Carmel Bay shoreline in Pebble Beach, CA. The 1.25-acre parcel is located at approximately 30 feet elevation on a W facing slope. The soils are sandy loam and the underlying rock is mostly granitic. Plant communities of the regional area include Coastal Bluff Scrub, Central Maritime Chaparral, Monterey Pine Forest, Monterey Cypress Forest and Coastal Prairie Grassland.

III. METHODS

The botanical survey was conducted during site visits on April 6, 2011 in the afternoon, April 11, 2011 in the morning hours and April 13, 2011 at mid-day. Field methods included walking the entire property while surveying the areas designated for the construction driveway and garage, inventorying observed plant and animal species, and photographing existing and proposed development areas. Weather conditions were sunny and full access to the site allowed for careful site and resource observations. The proposed construction envelope was surveyed and flagged (no vegetation removal was required for the flagging installation).

The California Natural Diversity Data Base (CNDDB) maintained by the State of California Depart of Fish and Game (DFG) and the California Native Plant Society Inventory of Rare and Endangered Plants (8^{th} Edition, 2010), were consulted for the identification of known populations of Federal and State listed rare, threatened and endangered plant species on or in the vicinity of the Lundquist project site. Survey methods included utilizing The Jepson Manual (Hickman 1993), Invasive Plants of California's Wildlands (Bossard, Randall, and Hoshovsky 2000), A Manual of California Vegetation (Sawyer and Keeler-Wolf 1995), and An Illustrated Field Key to the Flowering Plants of Monterey County (Matthews 1997).

IV. LOCAL VEGETATION

The proposed driveway, garage, and privacy wall sites are located along a terraced, south facing slope that includes portions of an existing driveway, parking area, existing fencing, landscaping and irrigation piping. Native stands of Monterey cypress (*Cupressus macrocarpa*) trees, an extension of the Cypress Point Grove, are found throughout the property and along the perimeter of the proposed construction zone. These trees vary in age and diameter with several standing over 20 meters in height.

Three saplings less than 2' in height and two trees less than 6' in height are within the garage construction envelope.

Several native Monterey pines (*Pinus radiata*) are scattered throughout the property, with one 7" diameter Monterey pine tree found within the garage construction envelope. This pine will require removal. Five saplings of less than 2-1/2 feet in height were noted as volunteers within the garage construction area.

The sparse understory vegetation along the driveway and garage construction zone includes sparse native herbaceous understory species and coastal bluff scrub species growing in a deep cypress duff layer. The dominant native plants include seaside daisy (*Erigeron glaucus*), Douglas iris (*Iris douglasiana*), beach aster (*Corethrogyne filaginifolia*) and other less dominated species listed in the attached plant list. Small leaved lomatium (*Lomatium parvifolium var. parvifolium*) and ocean milk vetch (*Astragalus nuttallii var. nuttallii*) were observed in this area. Several patches and seedlings of hottentot fig (*Carpobrotus edulis*) are present within the area.

The proposed privacy wall area (west and east sides of the wall) along 17 Mile Drive contains mostly patches of hottnetot fig and exotic grasses including wild oat (*Avena fatua*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*) and veldt grass (*Ehrharta erecta)*. Isolated native plants found along the fence line include Douglas iris (*Iris douglasiana*), seaside daisy (*Erigeron glaucus*), California vanilla grass (*Hierochloe occidentalis*) and other less dominating species listed in the attached plant list.

V. WILDLIFE

During two site visits to the project location, several bird species were identified (see Observed Animal Species List). Most bird species were observed using the site as a corridor to move to other locations off property. Several Anna's hummingbird (*Calypte* anna) and dark-eyed junco were observed using the northern and house area for foraging. A pair of Canada geese was observed on the southwest corner of the property. Further surveying discovered a nesting site below the cliff on a rock outcrop above the high tide line (approximately 150 feet from the proposed driveway). Inspection of the nest identified broken shell and bobcat or fox scat, which suggests any existing eggs may have been poached by a predator. Further site visits are recommended within the coming weeks to determine if the non-native goose begins nesting again. No other nesting or breeding behavior from other species was observed. A survey was also conducted for the presence of the Federally-listed Smiths' blue butterfly (*Euphilotes enoptes smithi*) and California red legged frog (*Rana aurora draytonii)*. None were observed.

VI. RARE, THREATENED, AND ENDANGERED SPECIES

State Listing is pursuant to Section 1904 (Native Plant Protection Act of 1977) and Section 2074.2 and 2075.5 (California Endangered Species Act of 1984) of the Fish and Game Code, relating to listing Endangered, Threatened, and Rare species of plants and animals. Federal Listing is pursuant with the Federal Endanged Species Act of 1973.

The following sensitive elements are listed by the CNDDB for the Monterey 7.5' quadrangle:

Allium hickmanii	Hickman's Onion
Actinemys marmorata pallida	southwestern pond turtle
Ambystoma californiense	California tiger salamander
Anniella pulchra nigra	black legless lizard
Arctostaphylos hookeri ssp. hookeri	Hooker's manzanita
Arctostaphylos pumila	sandmat Manzanita
Astragalus nuttallii var. nuttallii	ocean bluff milk-vetch
Astragalus tener var. titi	coastal dunes milk-vetch
Athene cunicularia	burrowing owl
Castilleja latifolia	Monterey Coast paintbrush
Ceanothus cuneatus var. rigidus	Monterey ceanothus
Central Dune Scrub	Central Dune Scrub
Central Maritime Chaparral	Central Maritime Chaparral
Charadrius alexandrinus nivosus	western snowy plover
Chorizanthe pungens var. pungens	Monterey spineflower
Clarkia jolonensis	Jolon clarkia
Coelus globosus	globose dune beetle
Collinsia multicolor	San Francisco collinsia
Cordylanthus rigidus ssp. littoralis	seaside bird's-beak
Cupressus macrocarpa	Monterey cypress
Cypseloides niger	black swift
Danaus plexippus	monarch butterfly
Delphinium hutchinsoniae	Hutchinson's larkspur
Ericameria fasciculate	Eastwood's goldenbush
Erysimum menziesii ssp. menziesii	Menzies' wallflower
Euphilotes enoptes smithi	Smith's blue butterfly
Fritillaria hickmanii	Hickman's onion
Gilia tenuiflora ssp. arenaria	sand gilia
Hesperocyparis goveniana	Gowen cypress
Horkelia cuneata ssp. sericea	Kellogg's horkelia
Lasiurus cinereus	hoary bat
Layia carnosa	beach layia
Lomatium parvifolium var. parvifolium	small-leaved lomatium
Lupinus tidestromii	Tidestrom's lupine
Malacothamnus palmeri var. involucratus	Carmel Valley bush mallow
Malacothamnus palmeri var. palmeri	Santa Lucia bush mallow
Microseris paludosa	marsh microseris
Monterey Cypress Forest	Monterey Cypress Forest
Monterey Pine Forest	Monterey Pine Forest
Monterey Pygmy Cypress Forest	Monterey Pygmy Cypress Forest
Northern Bishop Pine Forest	Northern Bishop Pine Forest
Oncorhynchus mykiss irideu	steelhead - south/central California coast

Pelecanus occidentalis californicus	California brown pelican
Pinus radiata	Monterey pine
Piperia yadonii	Yadon's piperia
Potentilla hickmanii	Hickman's cinquefoil
Rana aurora draytonii	California red-legged frog
Rosa pinetorum	pine rose
Trifolium polyodon	Pacific Grove clover
Trifolium trichocalyx	Monterey clover

Small-leaved lomatium (***Lomatium parvifolium***) and ocean bluff milk vetch (***Astragalus nuttallii var. nuttallii***) were observed within the proposed driveway and garage construction envelope. Neither of these species is a State or Federally listed plant. Both species are List 4.2 (Plants of Limited Distribution) of the California Native Plant Society Inventory of Rare, Threatened, and Endangered Plants of California, 8th Edition, 2010. "List 4.2 plants are not 'rare' from a statewide perspective, but are uncommon enough that their status should be monitored regularly". The CNPS Threat Rank is an extension added onto the CNPS List and designates the level of endangerment by a 0.1 to 0.3 ranking. Threat Rank 0.2 is defined as "fairly threatened in California (20-80% of occurrences threatened / moderate degree and immediacy of threat". CNPS also ranks these two plants with a State Ranking of S3, "vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation".

Monterey pine (***Pinus radiata***), Monterey cypress (***Cupressus macrocarpa***), and Monterey Cypress Forest are endemic to Monterey County and are listed as sensitive elements for the Monterey quadrangle. Several established Monterey cypress trees are aligned along the perimeter of the proposed driveway and garage. One 6" Monterey cypress within the proposed garage area may require removal or relocation. Monterey cypress are List 1B.2 (Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere) of the California Native Plant Society Inventory of Rare, Threatened, and Endangered Plants of California, 8th Edition, 2010. List 1B.2 plants are rare throughout their range with the majority endemic to California. One 7" Monterey pine, showing signs of pitch canker, is located in the proposed garage area. Monterey pines are a List 1B.1 (Threat Rank 0.1 is defined as "seriously threatened in California – high degree/immediacy of threat"). All plants constituting List 1B meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and are eligible for state listing. Please refer to Maurenn Hamb's arborist report for further tree observations and surveys.

No Federal or State listed Rare or Endangered species were found on the property.

VII. IMPACT ASSESSMENT AND MITIGATION MEASURES

Impact and Mitigation 1: Monterey Pine
The Monterey Pine is a CNPS Listed 1B.1 rare species. A singular 7" specimen will be removed for the construction of the proposed garage. It is recommended to transplant the 5 observed volunteer saplings located in the garage construction zone, as they would otherwise be lost to construction impacts. These saplings (< 2' H) will ensure the genetic integrity of the pines from the site and could serve as mitigation replanting stock. Mitigation replanting and replacement quantaties will be addressed in the Arborist Report by Maureen Hamb.

Impact and Mitigation 2: Monterey Cypress
The Monterey cypress is a CNPS Listed 1B.2 rare species. These trees, in varying degrees of age and establishment, are present throughout the site along the proposed construction perimeter. Site grading and construction near the native stands of Monterey cypress will require extreme caution to prevent any adverse impacts to the trees and supporting root systems. Severe grading in the root zones, compaction of soils, and improper deposition of excavated soils near the base of the Monterey cypress during project implementation could cause the decline or death of the trees. Operation of heavy equipment and parking of personnel vehicles should be kept within the construction impact zones. Any operation of heavy equipment or parking within the edge of the foliar canopy of the trees to be retained will compact soils and could jeopardize the health of the trees. Any grading activities near tree root zones will require observation from the project Arborist. Any cutting of root systems could compromise the structural integrity of the tree to withstand the coastal winds and also impair nutrient uptake if feeder roots are impacted. Three saplings (< 2' H) and two small trees (< 6' H) are within the proposed garage construction zone. These saplings could be used for mitigation planting stock if required by the Arborist Report. Please refer to the Arborist Report by Maureen Hamb (Project Arborist) for further protection and mitigation measures for the Monterey cypress trees.

Impact 3: Small-Leaved Lomatium
Small-leaved lomatium is a CNPS List 4.2 species. Forty-five (45) small-leaved lomatium plants were counted within the flagged driveway area and forty-one (41) small-leaved lomatium plants were counted within the flagged garage area. These plants should be salvaged from the site prior to grading operations and grown out by a reputable native plant nursery familiar with the growing requirements of the small-leaved lomatium (Bill Werner of Sierra Pacific Nursery @ 831.901.4349). The salvaged material can be out-planted in the fall months to coincide with the arrival of the rain season. Mitigation revegetation locations include the area to the southeast of the proposed driveway and the area to the west of the garage. These areas currently support small-leaved lomatium populations and provide suitable habitat conditions.

Impact 4: Ocean Bluff Milk-Vetch
Ocean bluff milk-vetch is a CNPS List 4.2 species. Two (2) ocean bluff milk-vetch plants were counted within the flagged driveway area. Ocean bluff milk-vetch is easily propagated by seed. Seed should be collected from several locations on the property to ensure genetic diversity and propagated for a Fall 2012 out-planting. Mitigation replacement should be restored at a 1:1 ratio, however it is recommended to overplant this species by a ratio of 3:1 to ensure the target mitigation numbers of success. Mitigation revegetation locations include the area south of the driveway near the coastal bluff. This area currently supports ocean milk vetch populations.

Impact 5: Tree Management During Construction Phase

In addition to the recommendations contained in the Arborist Report, the following tree management guidelines should be followed:

a. Any trees lost to construction activities should be replaced at a 1:1 ratio.
b. Tree replacement stock should be generated only from site-specific plant transplants or site-specific seed material.
c. Sedimentation and Erosion control measures should also be applied for all native tree species within the construction zone. Exposed soils from construction activities should be stabilized with proper erosion and sediment control devices so as to prevent any sedimentation deposits under the driplines of the trees.

Impact 6: Exotic Species Eradication

To preserve and enhance the existing Monterey cypress understory and coastal bluff scrub habitat, focused exotic plant eradication should be instituted on the property. Hottentot fig (*Carpobrotus edulis*) should be hand-pulled within the construction zones prior to grading activities to prevent it from spreading to new areas on the property. Also, the hottentot fig should be removed within the proposed mitigation replanting areas to help support the existing native plant species. Proper eradication includes hand removal and responsible off site disposal to a waste facility.

Wattle trees (*Acacia longifolia*) and French broom (*Genista monspessulana*) seedlings along the fence line should be thoroughly removed from the site by hand pulling. These species exist in low quantities on site, however they have the ability to spread quickly, especially within disturbed soils. Hand pulled material should be disposed in a waste facility.

Non-native annual grasses are pervasive along the street side of the proposed privacy wall area. It is recommended these grasses be removed and the area and the mulched with a 3" depth of wood chips to prevent germination of exotic species. This area also contains native species interspersed with the non-native grasses. Retaining the native species in this area would be beneficial towards erosion control and increased habitat value.

Impact 7: Erosion Control, Revegetation and Habitat Protection Guidelines

During the construction phase, the following best management practices are recommended for the project site:

a. Use of heavy equipment should be restricted to areas within the building envelope.
b. Sediment control devices should be installed on the downhill perimeter of the building envelope.
c. All disturbed, non-landscaped, and unvegetated areas shall be mulched with sterile mulch. Native seeding or plant installation should occur in the late fall months to take advantage of seasonal rains.
d. Prior to final grading, all construction debris shall be removed and construction activities completed in the areas to be treated with the native seed mix.
e. On-site stockpiled topsoil should be spread over disturbed areas prior to seeding activities to provide a suitable medium for vegetation establishment and growth.
f. Final grading should consist of a roughened condition, perpendicular to the slope, in order to augment seed germination and soil stabilization.
g. The seed mix shall consist of local ecotypes of native grass and forbs species identified from existing native plant community locations and site-specific seed

from shrub species hand collected from site. Native seed collections should occur during the summer months as seed becomes viable for collection.

H. Native plant revegetation may be necessary in the areas where exotic plants have been removed and the area of the existing driveway that is slated for decommission. After the completion of the soil disturbance activities, seed and plant materials should be installed in any non-landscaped areas in the fall months after the initial seasonal rains, when soil moisture levels have reached a minimum depth of 3 inches. Any transplanted stock can be replanted immediately and supplemented with a temporary irrigation system for the first year or two.

I. Protective fencing should be installed to protect the existing trees and tree root zones per the recommendations of the Arborist Report. Site protection measures should also be installed to protect the existing coastal bluff scrub and mitigation restoration areas from any construction or pedestrian impacts. All construction personnel should avoid these areas and maintain foot traffic to the construction impact areas and existing foot trails.

VIII. PLANT & ANIMAL SPECIES OBSERVED:

Note: 1. * denotes introduced/non-native species.
2. **bold** print denotes special status species.
3. *(landscape)* denotes nursery-trade native plant introduction.

Tree Species

Acacia longifolia *	golden wattle
Cupressus macrocarpa	**Monterey cypress**
Pinus radiata	**Monterey pine**
Quercus agrifolia	coast live oak

Shrubs and Herbaceous Species

Agrostis pallens	leafy bent-grass
Arctostaphylos edmunsii 'Carmel Sur' (landscape)	Carmel Sur manzanita
Astragalus nuttallii	**Nuttall's locoweed**
Artemisia pycnocephala	beach sagewort
Avena fatua *	wild oat
Baccharis pilularis ssp. consanguinea	coyote brush
Briza maxima *	rattlesnake grass
Bromus diandrus *	ripgut brome
Bromus hordeaceus *	soft chess
Bromus tectorum *	cheat grass
Calochortus albus	white globe lily
Carex harfordii	Monterey sedge
Carpobrotus edulis *	hottentot fig
Ceanothus griseus horizontalis (landscape)	Carmel creeper
Chlorogalum pomeridianum	soap plant

Corethrogyne filaginifolia	beach aster
Cyperus squarrosus	awned cyperus
Desmazeria rigida *	fern grass
Echium fasuosum *	pride of Madeira
Ehrharta erecta *	panic veldt grass
Elymus glaucus	blue wild-rye
Erigeron glaucus	seaside daisy
Festuca ovina glauca	sheep's fescue
Filago gallica *	narrow-leaved fillago
Genista monspessulana *	French broom
Gnaphalium ramosissium	pink everlasting
Grindelia latifolia var. platyphylla	gumweed
Hierochloe occidentalis	California vanilla grass
Hordeum jubatum *	foxtail barley
Hypochaeris glabra *	smooth cat's ear
Iris douglasiana	Douglas iris
Leptospermum laevigatum *	Australian tea tree
Lomatium parvifolium	**small-leaved lomatium**
Lotus heermannii var. orbicularis	wooly lotus
Medicago polymorpha *	bur medic
Monterey Cypress Forest	**Monterey Cypress Forest**
Oxalis pes-carpae *	Bermuda buttercup
Phacelia malvifolia	stinging phacelia
Phalaris californica	California canarygrass
Phormium tenax *	New Zealand Flax
Plantago coronopus *	cut-leaved plantain
Plantago elongata	annual coast plantain
Poa annua *	annual poa
Polypodium californicum	California polypody
Polypogon monspeliensis *	rabbitfoot grass
Primula polyantha *	primrose
Rosemarinus officinalis *	rosemary
Rubus ursinus	California blackberry
Saturaja douglasii	yerba buena
Sisyrinchium bellum	blue-eyed grass
Sonchus oleraceaus *	sow thistle
Stachys bullata	hedge nettle
Toxicodendron diversilobum	Pacific poison oak
Vulpia myuros *	rat-tail fescue

Animal Species

Branta canadensis	Canada goose
Buteo lineatus	red-shouldered hawk
Calypte anna	Anna's hummingbird
Corvus brachyrhynchos	American crow
Junco hyemalis	dark-eyed junco
Larus occidentalis	Western gull
Melanerpes formicivorus	acorn woodpecker

IX. PHOTO DOCUMENTATION: April 11, 2011

1. Existing fence and proposed (flagged) privacy wall location. NW corner facing south.

2. Existing fence and proposed (flagged) privacy wall location. NW corner of existing driveway entry facing east.

3. Middle of proposed driveway facing east toward the proposed entry.

4. Middle of the proposed driveway facing west toward house.

5. Proposed garage area.

6. Astragalus nuttallii

7. Lomatium parvifolium

8. Exotic species: hottentot fig and annual grasses.

ATTACHMENT 2

Botanical Consulting Services

Biotic Survey & Impact Assessment

3224 17 Mile Drive, Pebble Beach, CA
apn: 008-472-006

Written for:
Mr. Greg Larson

Written By:
Jean Ferreira
Botanist

January 11, 2008

pobox 5506, carmel, ca 93921 • p & f: 831-626-3814

Botanical Consulting Services

pobox 5506, carmel, ca 93921 • p & f: 831-626-3814

Background

In June of 2007, two owners of 3224 17 Mile Drive, Mr. and Mrs. Greg Larson, trimmed five native Monterey Cypress, without obtaining a permit. The parcel is located within the native Monterey Cypress forest stand in Pebble Beach, immediately down-coast of the Lone Cypress. No trees were removed as a part of this operation. The purpose of this study is to document the un-permitted trimming, quantify and age class the Monterey Cypress on the parcel, assess any resource damage and to propose recommendations for offsetting the damage.

Survey Method

Information was gathered for this report through on-site surveys, Rarefind, the County soils report, Flora of Monterey County, aerial photos from the Google Earth, and the authors own files on the natural resources of Monterey County. On-site surveys were conducted on December 17th and 19th, 2007. The entire upland area of the parcel was surveyed on foot. The intertidal area below the bluff edge was not surveyed. The location of each tree was plotted on the basemap, and the diameter at breast height (DBH) was taken with a DBH tape, approximately 4.5 feet above the natural grade.

Findings

The parcel is located on the Pacific Ocean at Sunset Point in Pebble Beach. The parcel generally faces south-west and is located midway between Cypress Point and Pescadero Point. The parcel is 1.68 ac in size and is roughly rectangular shaped, with the long sides of the rectangle running along 17 Mile Drive for 466 ft, and the Pacific Ocean for 340 ft. The parcel is governed under the Del Monte Forest LUP and is within the Coastal Zone, as defined for planning purposes. Approximately 25% of the parcel is rocky intertidal or lower. Approximately 10% of the parcel is developed with a house, hardscape and landscape, and the remaining 65% is Monterey cypress forest. as seen in the following aerial photograph.

The property ranges approximately from 0 ft in elevation within the intertidal zone to 60 ft at the edge of 17 Mile Drive on the eastern boundary. Most of the usable area on the parcel is on the ocean terrace and ranges between 20 and 40 ft in elevation.

The soil on the ocean terrace on the parcel is classified as Sheridan course sandy loam, a well drained soil underlain by granite and schistose rock. The runoff is rapid, and the erosion hazard is moderate on Sheridan soils. The intertidal zone and offshore rocks are classified as granitic rock outcrop.

Two native plant communities are present on the parcel: Monterey cypress forest and rocky intertidal. For the purpose of this report, only the Monterey cypress forest was surveyed. The plant species list created for the property is in Table 1. Animals observed or commonly found in the Pebble Beach Monterey cypress forest and rocky intertidal zone are listed in Table 2.

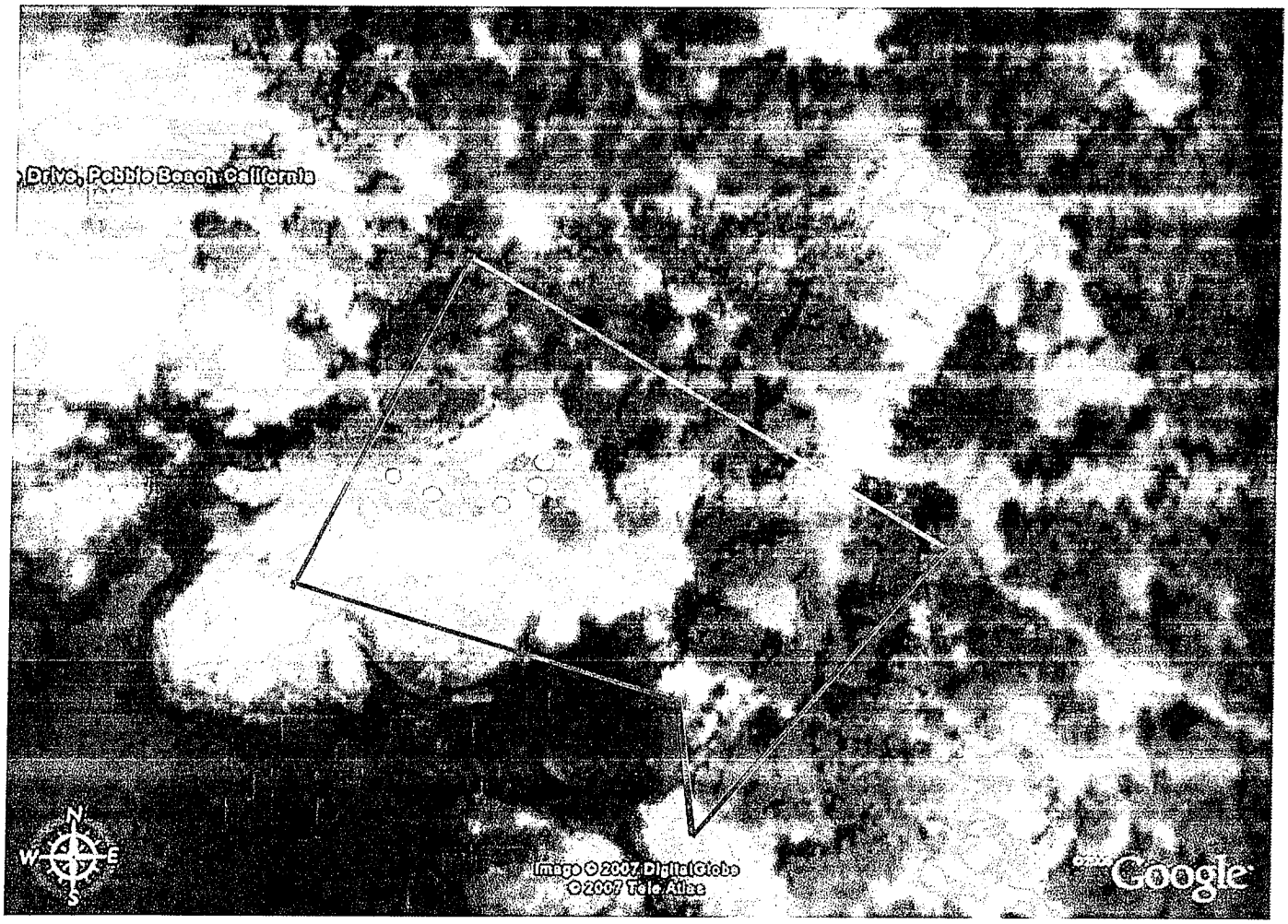


Photo 1. Aerial of 3224 17 Mile Drive, Pebble Beach, with approximate parcel boundaries shown in red. Monterey Cypress trees that were trimmed are highlighted in yellow.

Monterey Cypress Forest

The Monterey cypress forest on the parcel is a mature forest dominated by Monterey cypress (*Cupressus macrocarpa*) with occasional Monterey pines (*Pinus radiata*). The understory is a low growing (less than 2 ft high), diverse mix of seaside daisy *(Erigeron glaucus),* Pacific gumplant (*Grindelia stricta ssp. platyphylla),* Douglas iris *(Iris douglasiana),* deerweed *(Lotus scoparius),* yerba buena *(Satureja douglasii),* bedstraw *(Galium sp.),* beach aster (*Lessingia filanigifolia var. californica),* Pacific reed grass *(Calamagrostis nutkaensis),* saltgrass *(Distichlis spicata),* blue wild rye *(Elymus glaucus) and* creeping wild rye *(Leymus triticoides).* See Table 1 for the complete list of plant species observed during the survey.

The understory of the Monterey cypress forest has been colonized by numerous non-native plant species. These exotics have been successful in crowding out large areas of native plants, reducing the diversity and habitat value of the understory. The greatest culprit is hottentot fig and sea fig (*Car-*

pobrotus edulis, C. chilensis) two members of the iceplant family. The iceplants have colonized approximately 25 to 30% of the understory and have had the greatest negative impact on the forest on this parcel. In addition, two garden escapee, dusty miller (*Senecio cineraria)* and crassula (*Crassula multicava)* have impacted the understory on the west side of the home. The non-native rattlesnake grass (*Briza major*) has eliminated the native understory species on the parcel near 17 Mile Drive.

Monterey Cypress Survey

The tree survey performed for this report included a generalized location mapping and measuring the diameter at breast height (4.5 ft above grade). This information is included on the attached oversized map.

Using the aerial photograph above, the forest is estimated to have a 65 to 75% canopy cover. There are 157 adult trees that make up the canopy. Monterey cypress comprise 88% of the trees (138) and Monterey pines are 12% (19). Using dbh as a proxy variable for age, age classes are based on bole diameter in inches are listed below.

DBH	# of M.C.	%	# of M.P.	%
2.5-9.5"	45	32	11	61
10-19.5"	49	36	4	22
20-29.5"	25	18	1	5.6
30-39.5"	7	5	1	5.6
40-49.5"	5	4	1	5.6
50"+	7	5	1	5.6
TL:	138	100%	18	99.8

In a natural, self-sustaining stand of trees with typical recruitment and seedling survival, the general age class distribution is inversely proportional to age. However, climate patterns and catastrophic events such as fire or disease, greatly shape forest tree survivorship trends and can trigger pulse recruitment and mortality. Information on the entire Pebble Beach Monterey cypress population would need to be analyzed to identify trends. Managing this one parcel, a goal of having all age classes represented will lend toward a stable stand. The Monterey cypress on the study site show a slight under representation in the 30+ and 40+ classes.

The seedlings and saplings under 6 ft tall were not included on the survey map but were tallied for the site. Monterey pine and Monterey cypress had similar numbers of seedings/saplings (35-MC, 31-MP) despite the dominance of cypress in the forest (88%). In addition, the vast majority of seedling/saplings were located to the west of the house site (80%), with only 20% found to the east of the house, even though two-thirds of the land is to the east of the house. This is probably due to available light, moisture levels and density of forest duff layer, which all effect seedling recruitment and survival.

The largest Monterey cypress on the site measured 87"dbh. An early study quoted by Jepson (1928) noted 284 years as the oldest documented Monterey cypress on record. The Monterey cypress are

thought to have an age span of 50 to 300 years in their natural range.

Sensitive Species and Habitats

Due to a habitat with a unique blend of soils and climate, the Monterey cypress naturally occurs in only two very localized populations. The first and largest is scattered along the 17 Mile Drive in the Del Monte Forest between Point Cypress and Pescadero Point. The second is 3 miles south of Pescadero Point on Cypress Point in Point Lobos State Reserve.

Although presently, the Monterey cypress is not officially listed as an endangered, threatened or rare plant species by California or the federal government, it meets the criteria for listing and is therefore included on the State of California's list of Special Plants with a ranking of S1.2 or threatened, and falls under Section 15380 of CEQA for protection during project review.

Due to the impacts of past grazing, residential development, and the colonization by non-native plant species, the Monterey cypress forest plant community, the combination of native plants that make up the understory growing with the cypress, is as threatened as the cypress trees themselves. The Monterey cypress forest is listed on the California Department of Fish and Game's database as 'sensitive habitat'.

Assessment of Impacts

Five Monterey cypress trees were pruned last summer without prior review and permit. The tree locations are indicated on Photo #1 with yellow dots, and on the attached oversized map, with their dbh size shown in larger red numbers outlined with a black box. Pruning details are listed below.

	Tree DBH	Pruned Branches Diameter	Note
1.	40.5"	22", 5", 4", 8", 2.5", 4.5", 3.5"	Large tree on point, live branches trimmed.
2.	11"	4", 4.5", 2"	Live branches trimmed.
3.	20"	5"	Severely declining tree (95% dead), trimmed dead branch extending over firepit.
4.	21"	3", 3"	Live branches trimmed.
5.	7"	2", 2"	Live branches extending into path trimmed.

Issues considered with each trimmed tree during this assessment were whether the pruning impacted the vigor or survival of the individual tree, and if the reduction in canopy might result in impact to the understory plants and soil due to increased exposure, leading to a degradation of the habitat.

None of the trees pruned received a large enough reduction in the canopy to affect the vigor and survival of the trees. Trees 3,4, and 5 (as listed above) are all located in the landscaped beds adjacent to the house; their understories are covered with rosemary and other landscape plants. Additional exposure created by the pruning will not have any effect on native habitat or soil stabilization. Tree 3 is also dying, and due to its position in the use area, would be considered a safety hazard. Trees 1 and 2 are in an area that is sparsely covered by native understory. They are also on a native American midden site, a cultural resource that should be protected from erosion. These two bluff edge trees also receive direct wind and rain due to their front line positions. An estimated 500 ft² area below the trees may be subjected to erosion and colonization by non-native plants following any erosional disturbance, resulting in lower habitat value.

Mitigation Recommendations

To mitigated the loss of limbs on trees 1 and 2, an area totalling 500 ft² between the two trees should be planted with species native to the understory on the bluff edge following the methods outlined below.

- One hundred seedling shall be installed to supplement the natives that presently sparsely cover the site. The planting mix will be a combination of some or all of the following understory species: *Artemisia pycnocephala, Danthonia californica, Astragalus nuttalli, Erigeron glaucas, and Lessingia filanigifolia var. californica* and one native Monterey Cypress seedling. The plants must be of Pebble Beach origin, propagated from stock from the project site or obtained through the Pebble Beach Co. nursery. The Monterey cypress seedling must be of the genetic stock of the native Pebble Beach population.

- The planting will be scheduled during the winter months, after 2 to 3 inches of rain has been received and more storms are expected. Planting should be avoided during the period of April 1 through October 31st.

- Seedling containers shall be a minimum of a supercell 6", 2 inch pot or something of equivalent volume.

- The seedlings shall be spaced 12 inches on center, with the exception of Artemisia which shall be spaced 18 inches on center, from both new seedlings and existing plants. The general planting layout will be a random mix of the species. Care will be taken to position the cypress seedling in a location with a minimum of competing mature cypress roots.

- Planting holes shall be equal in depth to the container size and twice the width. The plants should be installed in the native soil, with no soil amendment. One tablespoon of an organic all-purpose fertilizer (Dr. Earth Organic 2 Starter 2-4-2, or E.B. Stone Sure Start 4-6-2 or equivalent) shall be added to the planting hole. Non-organic fertilizers burn native soil mycorrhizae that facilitate uptake of nutrients by root hairs. See drawing below.

- Native soil shall be used to create a water retention basin around the plant. Two inches of native

organic matter from the site, such as Monterey cypress needles, shall be spread around the base of each plant inside the water retention basin.

- A temporary above ground, irrigation system shall be installed to provide water to supplement winter rains during the first growing year. The source of water for the irrigation system will be from the water faucet at the closest corner of the house.

- The irrigation system will be equipped with an electrical or battery operated controller.

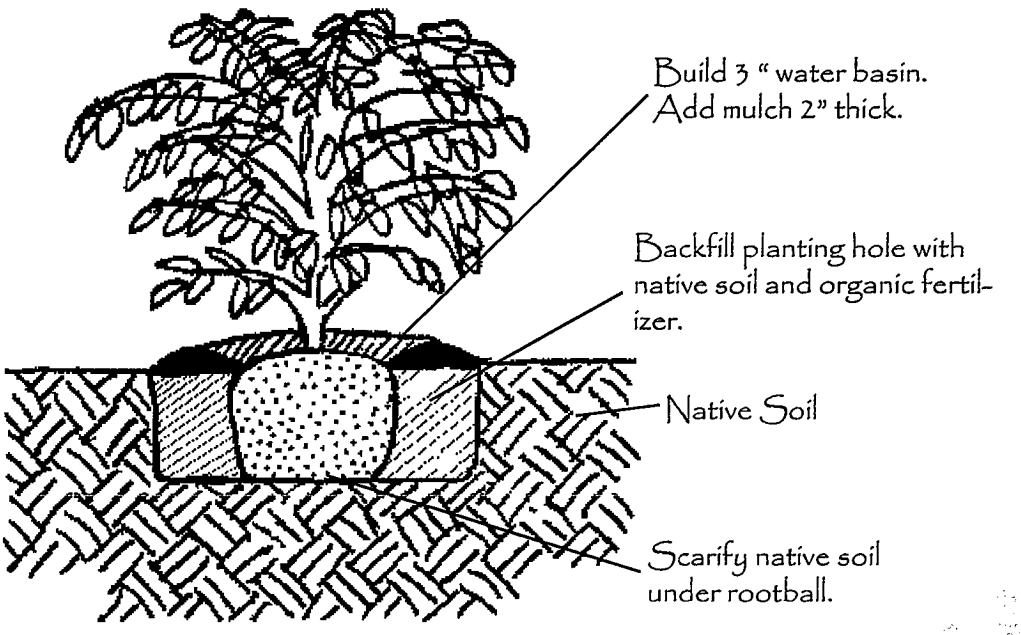
- Each seedling will receive approximately ½ gallon per watering. The goal will be to provide only supplemental water to the rains and to water deeply the entire root zone of each plant. At installation and as the seedlings grow, the system will be evaluated for the need of two emitters per seedling to deliver equal water to the entire root zone of each plant.

- General guidelines for the scheduling of the water system: up to three times per week during winter and spring months, once a week in June and once per month July through November. Any irrigation will be monitored closely to only apply usable water within the root zone, and never runoff.

- Planting shall be documented and monitored 12 months after the installation is completed. The monitoring shall include a direct count of surviving seedlings, noting evidence of growth after planting, and photographs of the planting site.

- Success is defined as 80% survival at the end the year, with new growth evident on the understory species and survival of the cypress seedling, showing good vigor and growth. The results shall be reported to County of Monterey, Planning Department. Failure to meet the success criteria will require the replanting, maintance and monitoring until success is achieved.

Planting Detail



References

Jepson, W.L. 1928. Monterey Cypress. The Trees of California. ed. 2.

Table 1. Plant Species of the Monterey Cypress Forest at 3224 17 Mile Drive, Pebble Beach, California. Survey Dates: 17 December & 19 December, 2007.

Species	***Common Name***
Artemesia pycnocephala	*Sagewort*
Astragalus nuttallii	*Locoweed*
Baccharis pilularis var. pilularis	*Coyote Bush*
Calamagrostis nutkaensis	*Pacific Reed Grass*
Carex pansa	*Dune Sedge*
Cupressus macrocarpa	*Monterey cypress*
Danthonia californica	*CA Oatgrass*
Distichlis spicata	*Saltgrass*
Elymus glaucus	*Blue Wild Rye*
Erigeron glaucus	*Seaside Daisy*
Eiophyllum staechadifolium	*Lizardtail*
Galium sp.	*Bedstraw*
Grindelia stricta ssp. platyphylla	*Pacific Gumplant*
Iris douglasiana	*Douglas Iris*
Lessingia filanigifolia var. californica	*Beach Aster*
Leymus condensatus	*Giant Wild Rye*
Leymus triticoildes	*Creeping Wild Rye*
Lotus scoparius	*Deerweed*
Mimulus aurentiacus	*Sticky Monkeyflower*
Pinus radiata	*Monterey Pine*
Plantago maritima	*Pacific Seaside Plantain*
Quercus lobata	*Coast Live Oak*
Satureja douglasii	*Yerba Buena*
Stachys bullata	*Wood Mint*
Vaccinium ovatum	*Huckleberry*
Non-native plants present in the cypress forest understory	
Briza major	*Rattlesnake Grass*
Carpobrotus chilensis	*Sea Fig*
Carpobrotus edulis	*Ice Plant*
Crassula multicava	*Crassula*
Cytisus sp.	*Broom*
Drosanthemum floribundum	*Magic Carpet*
Echium candicans	*Pride of Madeira*
Festuca glauca	*Blue Fescue*
Hedera helix	*English Ivy*
Rhus ovata	*Lemonade Berry*
Oxalis pes-caprae	*Bermuda Buttercup*
Rosemarinus officinalis	*Rosemary*
Senecio cineraria	*Dusty Miller*

Table 2. Potential Animal Species List for 3224 17 Mile Drive, Pebble Beach, CA.

Family	*Species*	*Common Name*
Mammals:		
Canidae	Vulpes fulva	Red Fox
Cervidae	Odocoileus hemionus	Black-tailed Deer
Cricetidae (Mice)	Peromyscus miniculatus	Deer Mouse
	Peromyscus californicus	California Mouse
	Reithrond;ontomys megalotis	Western Harvest Mouse
	Microtus californicus	California Meadow Mouse
	Neotoma fuscipes	Dusky-footed Woodrat
Didlphidae	Didelphis virginiana	Opossum
Filidae	Lynx rufus	Bobcat
Geomyidae	Thomomys bottae	Valley Pocket Gopher
Heteromyidae	Dipodomys heermanni	Kangaroo Rat
Leporidae	Sylvilagus audubonii	Audubon cottontail Rabbit
	S. bachmani	Brush Rabbit
Muridae	Mus musculus	House Mouse
	Ratus morvegicus	Norway Rat
	Ratus rattus	Black Rat
mustelidae	Mustela frenata	Longtail weasel
	Tazidea taxus	Badger
	Spiligale putoris	Spotted Skunk
	Mephitis mephitis	Striped Skunk
Procyonidae	Procyon lotor	Raccoon
Sciuidae	Spermophilus beecheyi	California Ground Squirrel
	Sciurus griseus	Western Gray Squirrel
Soricidae	Sorex trowbridgei	Trowbridge Shrew
	Sorex ornatus	Ornate Shrew
Talpidae	Neurotrichus gibbsi	Shrew Mole
	Scapanus latimanus	Broad-handed Mole
Vespertilionidae	Myotis lucifungus	Little Brown Myotis
	M. yamanensis	Yuma Myotis
	M. volans	Long-eared Myotis
	M. californicus	California myotis
	M. leibii	Small-footed Myotis
	Pipistrellus hesperus	Western Pipistril
	Eptesicus cuscus	Big Brown Bat
	Lasiurus borealis	Red Bat
	L. cinereus	Hoary Bat
	Plecotus townsendi	Western Big-eared Bat
	Antrozous pallidus	Pallid Bat

Family	Species	Common Name
Birds:		
Accipitridae	Accipiter cooperii	Cooper's Hawk
	A. striatus	Sharp-shinned Hawk
	Aquila chrysaetos	Golden Eagle
	Buteo jamaicensis	Red-tailed Hawk
	B. lineatus	Red-shouldered Hawk
	Cathartes aura	Turkey Vulure
	Circus cyaneus	Northern Harrier
	Elanus caeruleus	Black-houldered Kilte
	Falco tinnunculus	Ameriacn Kestrel
Charadriidae	Charadrius vociferus	Killdeer
Columbidae	columba fasciatat	Band-tailed Pigeon
	cumba livia	Rock Dove
	Zenadia maroura	Mourning Dove
Corvidae	Aphelocoma coerulescens	Scrub Jay
	Corvus brachyrhynchos	Americaan Crow
	C. boraz	Raven
Emberizidae	Melospiza meodia	Song Sparrow
	Zonotrichia atricapilla	Golden-crowned Sparrow
	Z. leucophays	White-crowned Sparrow
Fringillidae	Carpodacus mezicanus	House Finch
Hirundindidae	Hirundo pyrrhonota	Cliff Swallow
	H. rustica	Barn Swallow
	Tachycineta bicolor	Tree Swallow
	T. thalassina	Violet-green Swallow
Parulinae	Dendroica coronata	Yellow-rumped Warbler
Phasianidae	Callipepla califorica	California Quail
Sittidae	Sitta pygmaea	Pygmy Nurthatch
Strigidae	Bubo virginianus	Great Horned Owl
	Otus dennicottii	Western Screech Owl
	Tyto alba	Barn Owl
Troglodytidae	Thryomanes bewickii	Bewick's Wren
	Troglodytes aedon	House Wren
Pelecanidae	Pelecanus occidentalis	Brown Pelican
Phalacrocoracideae	Phalacrocorax auritus	Double-crested Cormorant
	P. penicillatus	Brandt's Cormorant
Ardeidae	Nycticorax nycticoraz	Black-crowned Night-Heron
	Egretta thula	Snowy Egret
	Casmerodius albus	Great Egret
	Ardea herodias	Great Blue heron
Haematopodidae	Haematopus bachmani	Black Oystercatcher
Scolopacidae	Numenius phaeopus	Whimbrel
Laridae	Larus heermanni	Heermann's Gull

Family	Species	Common Name
	L. delawarensis	Ring-billed gull
	L. californicus	California Gull
	L. philadelphia	Bonaparte's Gull
	L. occidentalis	Western Gull
	Sterna forsteri	Forester's Tern
	S. caspia	Caspian Tern
Reptiles:		
Anguidae	Gerrhonotus multicarinatus	California Alligator Lizard
Boidae	Charina bottae bottae	Pacific Rubbe Boa
Colubridae	Lapropeltis getulus californiae	California Kingsnake
	Thamnophis elegans terrestris	Coast Garter Snake
	Tituotphis melanoleucus catenifer	Pacific Gopher Snake
	Coluber constrictor marmon	Western Yellow-bellied Racer
	Contia tenuis	Sharp-tailed Snake
	Diadophis punctatus vandenberghi	Monterey Ringnecked Snake
Iguanideae	Sceloporus occidentalis occidentalis	Northwestern Fence lizard
	Phrynosoma cornatum	Coast Horned Lizard
Scincidae	Eumeces skiltonianus skitonianus	Skilton Skink

ATTACHMENT 3

Maureen Hamb-WCISA Certified Arborist #2280
Professional Consulting Services

LIB120030

TREE RESOURCE EVALUATION
CONSTRUCTION IMPACT ANALYSIS
3224 17 MILE DRIVE, PEBBLE BEACH

Prepared for
Carver + Schicketanz Architects

April 2011

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ASSIGNMENT/SCOPE OF SERVICES

The construction of a garage, driveway and privacy wall are proposed for an existing residence located at 3224 17 Mile Drive, Pebble Beach (APN 008-472-006). The property is within the protected Monterey cypress habitat and is densely forested with both Monterey cypress and Monterey pine trees. The property owners, Richard and Melanie Lundquist and their architect, Mary Anne Schicketanz (Carver & Schicketanz) retained me to assess the condition of the trees adjacent to the development and review the plans to evaluate the potential impacts to the trees. To complete the evaluation I have completed the following:

- Complete a thorough visual inspection of 82 trees growing adjacent to the proposed driveway, garage and privacy wall.
- Complete a cursory visual assessment 25 additional trees growing outside the development area.
- Identify tree species and measure trunk diameter at a point 54 inches above natural grade.
- Evaluate the health status and structural integrity of each tree.
- Identify the Critical Root Zone (CRZ) for each tree.
- Provide recommendations for tree retention and tree removal based on overall condition and construction related impacts.
- Provide recommendations for reducing impacts using alternative construction methods and create a tree protection plan.

SUMMARY

The health and structural stability of 81 Monterey cypress and Monterey pines were evaluated in April of this year. The trees are growing within their indigenous range and are components of the native Monterey cypress grove that covers the entire property.

In general the trees are in fair condition. The mature trees have developed great height and girth. They also display the structural defects commonly seen in mature examples of the species. Decay in the main stems, cavities caused by damage or decay and large diameter dead branching were found.

Three trees (#68, #66 and #32) have severe structural defects that cannot be mitigated; these defects represent a significant risk to the users of the property, as they will lead to either large branch or whole tree failure.

I have identified three trees that are in conflict with the proposed development. One young Monterey pine (#31 8-inches in trunk diameter) is within the proposed driveway. The tree has indications of the early stages of pitch canker disease. A portion of the canopy is discolored and copious pitch exudation is visible on the stems.

Trees #36 and #37 are within the footprint of the proposed garage. Tree #36 is a dead Monterey pine, #37 is a young cypress seven inches in trunk diameter. The tree has sparse foliar development. The removal of the tree is recommended; if approvals cannot be obtained professional relocation is an option.

The project as proposed could impact the Critical Root Zone (CRZ) of at least 30 trees. The impacts include excavation and grading needed for the proposed driveway, garage and walls. In addition, the demolition of the existing asphalt could damage tree roots. Any activities proposed within the CRZ will be completed using methods that reduce damage to tree roots. Two trees (#17 and #24) may require minor pruning to provide clearance for the driveway.

In addition to special construction methods (root pruning, elimination of continuous excavation for footings and on-going monitoring), exclusionary fencing with straw bale barricades will be erected in the areas defined on the attached site plan. Staging of equipment and supplies and parking for construction workers will be restricted to areas outside the exclusion zones, never adjacent to the trees.

BACKGROUND

In April of this year I completed a detailed inspection and evaluation of 81 trees growing on property located at 3224 17 Mile Drive in Pebble Beach. The trees were evaluated to determine health status, structural integrity and suitability for incorporation into a development project. For purposes of identification numbered metal tags have been affixed to the tree trunks with corresponding locations documented on the attached site map.

Ratings for tree health, structural integrity and suitability for incorporation into the developed site have been completed and are listed in the attached inventory. Ratings are determined following the completion of a visual tree assessment. This type of evaluation is based on methods developed by Claus Mattheck and documented in The Body Language of Trees. The assessment involves an analysis of the biology and mechanics of each tree, which are then rated as “good”, “fair” or “poor”.

Suitability is determined using overall tree condition and industry data on species characteristics, including tolerances to site changes and specific construction impacts.

The biological assessment determines the health status of the tree and includes an evaluation of the following:

- Vitality of the leaves, bark and twigs
- Presence of fungi or decay
- Percentage and size of dead branching
- Status of old wounds or cavities

Healthy trees in "good" condition display dense full canopies with dark green foliage. Dead branching is limited to small twigs and branches less than one inch in diameter. No evidence of disease, decay or insect activity is visible. Vigorous, healthy trees are much better able to tolerate site alterations and invasive construction impacts than less vigorous trees of the same species.

Trees in "fair" health have 10-30% foliar dieback, dead branching greater than one inch in diameter and minor evidence of disease, decay or insect activity.

Trees in "poor" health display greater than 30% foliar dieback, dead branches greater than two inches in diameter and/or areas of decay, disease or insect activity.

The mechanical assessment is used to determine the structural integrity of the tree and includes an evaluation of the following:

- Integrity of the framework of the tree (supporting trunk and major branches)
- External symptoms (bulges, ribs or cracks) that can indicate internal defects
- Lean of main trunk and canopy configuration
- Development of root buttress

Trees with "good" structure are well rooted with visible taper in the lower trunk leading to buttress root development. These qualities indicate that the tree is solidly rooted in its growing site. No significant structural defects such as codominant stems (two stems of similar size that emerge from the same point on the trunk), weakly attached branches, cavities or decay are present.

Trees with "fair" structural integrity may have defects such as poor taper in the trunk, inadequate root development or growing site limitations. They may have multiple trunks, included bark (where bark turns inward at an attachment point), or suppressed unbalanced canopies. Small areas of decay or evidence of previous limb loss may be present in these trees. Trees in fair condition can be improved using common maintenance procedures.

Poorly structured trees display one or more serious defects that may lead to the failure of branches, trunk, or the whole tree due to uprooting. Trees in this condition my have had root loss due to decay or site conditions. The supporting trunk or large stems could be compromised by decay or structural defect (large codominant stems with included bark). Trees in this condition represent a risk. In some situations maintenance, including cable support systems, props or severe pruning can reduce, but not eliminate the potential hazard.

Trees that contain large dead branches, decayed areas or other structural defects that cannot be mitigated are not suitable for preservation adjacent to high use areas (dwellings, roadways etc).

OBSERVATIONS/DISCUSSION OF FINDINGS

The property is located on 17 Mile Drive, near Sunset Point in Pebble Beach. It is a relatively level parcel, approximately 50 feet above sea level and below the public roadway. The residence on the parcel is accessed by an asphalt driveway. The developed portion of the site covers approximately 10% of the property, forest cover represents approximately 60%-70% (based on aerial photographs), understory vegetation and open areas make up the remainder of the site.

Approximately 150 trees are growing on the site. The forest is dominated by Monterey cypress (*Cupressus macrocarpa*) with occasional Monterey pines (*Pinus radiata*). Mature, semi-mature and young trees are represented. This mix of age classes is a sign of a diverse and dynamic forest system.

The western portion of the property is mainly large, mature Monterey cypress in various stages of decline. Large areas of decay, dead branching and sparse foliar development are common throughout the stand. The defects seen in the trees are common to the species as it matures and reaches senescence.

Young Monterey pines are present in higher numbers on the eastern portion of the site; mature pines represent the smallest percentage of the forest.

Several trees display severe structural defects that could lead to either whole tree, or large branch failure. The cypress trees on this property are a component of a native habitat with small localized populations. The California Department of Fish and Game have defined these habitats as “sensitive”. Monterey County policies discourage the removal of Monterey cypress trees (section 20.147.040.C.1.e), but may allow removal in cases where life, property or access is threatened (section 20.147.050.D.2).

Three trees on this site meet this requirement. They are not associated with the proposed project. The recommendations made are strictly related to the management of risk and the safety of the residents.

- Tree # 32 is a Monterey cypress with a trunk diameter of 29.3 inches. The main trunk and low lateral branch extend over the existing driveway are completely decayed and at risk of failure.

- Tree #66 is a Monterey cypress with a trunk diameter of 19.5 inches. A long, elliptical shaped wound (eight feet in length) is present on the upper main trunk. The area is decayed and wood is fractured. The tree canopy is healthy, putting additional stress on the trunk. This tree is at risk of failure due to compromised strength in the main trunk.

- Tree #68 is a Monterey cypress with a trunk diameter of 23.4 inches. The tree is several feet from the existing residence. As with tree #66 a large elliptical shaped wound is visible on the trunk, the wound is decayed and wood strength is compromised.

PROJECT DESCRIPTION/DISCUSSION OF CONSTRUCTION IMPACTS

The plans proposed include demolition and removal of the existing asphalt driveway, construction of a garage and a privacy wall between 17 Mile Drive and the residence below.

I have reviewed the following plans to evaluate the impacts to the trees related to the construction of the driveway, garage and privacy wall:

- Architectural plans prepared by Carver + Schicketanz

Monterey cypress (*Cupressus macrocarpa*) as a species have a low tolerance to construction related impacts (Matheny & Clark 1998). Monterey pine (*Pinus radiata*) as a species have a moderate tolerance to construction related impacts.

The attached inventory includes the size of the **Critical Root Zone**; this area is determined following the evaluation of tree condition and tolerances. This exclusionary zone is an area of root development that, if possible, is left undisturbed. This exclusion zone is not related to the extents of the foliar canopy (sometimes referred to as the "dripline"). The size of the canopy does not provide an indication of root development and cannot be perceived as a boundary when evaluating construction related impacts.

The **Critical Root Zone** method has been successfully utilized to define the "optimum" protection area for tree roots. It is based on the British Standards Institute (BSI) method developed in 1991. It uses ranges in trunk diameter, tree age and vigor to calculate the exclusionary zone. This method can be modified to include species tolerances and tree architecture.

In addition to the Critical Root Zone the attached inventory defines the level of cumulative impacts related to the proposed construction as **Low, Moderate or High.**

Low impacts are minimal, the optimum protection zone has been allowed.

Moderate impacts may impact the absorbing or structural root systems. Canopy modifications of more than 20% could be required. Special construction methods or pre-construction treatments will be recommended to reduce impacts to an acceptable level and eliminate the potential decline of the tree.

High impacts may require tree removal. If retained, special construction methods must be implemented, supplemental irrigation may be recommended and tree condition monitored.

The impacts to several trees growing adjacent to the proposed driveway have been rated as “high”. Due to the protected nature of the cypress trees on this property the trees will be retained and special construction methods employed (defined below). The use of alternative design/construction methods that eliminate excavation into the root zone will reduce the impacts from high to moderate.

RECOMMENDATIONS

Ideally, the **Critical Root Zone** of retained trees would remain undisturbed during development, eliminating the opportunity for damage and the resulting decline of the trees. When encroachment into the zone becomes necessary alternative construction methods or pre-construction treatments are required.

Tree Removal will be a necessary component of this project. One dead pine, one small diameter pine and one small cypress are within the driveway or garage. If necessary, the cypress can be professionally relocated.

Proper Root Pruning has been recommended for trees adjacent to the driveway and walls. These trees are listed in the attached inventory. This process is completed by skilled labor under the supervision of the project arborist.

All roots (up to one inch in diameter) are properly pruned using appropriate tools (pruners, loppers or handsaw). Roots greater than one inch will be inspected and evaluated by the project arborist. If necessary, the root will be retained, wrapped in protective material (foam pipe wrap) and bridged.

Special Construction Methods will be required for areas of the driveway and privacy wall. The footings for the wall must be designed to span over tree roots, the grade beam supporting the wall must be placed above grade. No continuous excavation adjacent to the trees will be permitted.

The driveway section adjacent to the trees must span over the root zone for the distances listed in the attached inventory. As with the wall, no continuous excavation will be permitted.

Driveway Demolition must be completed using small equipment. The equipment will operate on the existing asphalt keeping clear of the exposed soil and tree roots.

Protection Fencing and Barricades will be erected in areas defined on the attached site plan. This is a simple and effective way to protect trees during construction. Fencing supported by posts in the ground surrounded by straw bales as a barricade creates both a physical and visual barrier between the trees, the construction workers and their equipment. When access into the protected areas becomes necessary, it will be reviewed by both the contractor and the project arborist.

Monitoring of the initial site clearing and excavation for walls and the driveway will be performed at least twice weekly to ensure compliance with the tree protection measures.

Contractors and sub contractors should be supplied with a copy of the attached Tree Preservation Specifications before entering the construction site.

Any questions regarding the trees on this development site or the content of this report can be directed to my office.

Respectfully submitted,

Maureen Hamb-WCISA Certified Arborist #2280

Tree #	Species	Diameter	Health	Structure	CRZ	Potential Impact: Low Moderate High	Comments/Recommendations
1	Monterey cypress	55.7	poor	poor	40	moderate	Large diameter dead branching, 10% live foliage. 15 feet from proposed wall/Protect with fencing and barricades
2	Monterey cypress	18.2	poor	poor	14	moderate	Tree is comprised of only 2 branches, 10 feet from proposed driveway/Protect with fencing and barricades
3	Monterey cypress	16.3	fair	fair	10	high	Low live crown ratio, 8 feet from proposed wall and driveway/Protect with fencing and barricades, proper root pruning will reduce impacts to moderate level.
4	Monterey cypress	13	fair	fair	7	high	Young tree with sparse foliage. Standing at edge of proposed wall and driveway/Proper root pruning during construction will reduce impacts to moderate level, protect with barricades.

Tree #	Species	Diameter	Health	Structure	CRZ	Potential Impact: Low Moderate High	Comments/Recommendations
5	Monterey cypress	12.4	fair	fair	6	high	Young tree with sparse foliage. 8 feet from proposed driveway/Proper root pruning during construction will reduce impacts to moderate level protect with barricades.
6	Monterey cypress	12.7	fair	fair	6	high	Young tree 4 feet from proposed driveway and wall/Proper root pruning during construction will reduce impacts to moderate level. Protect with barricades.
7	Monterey cypress	37.7 & 30.8	fair	fair	30	high	Large mature tree with two main stems that dived near grade. Structural defect visible at 30', dead lower branching. 8 feet from proposed driveway, 4 feet from wall/construct wall on piers to avoid impacts to large diameter structural roots, proper root pruning at edge of driveway. Implementation of alternative procedures will reduce impacts to moderate level. Protect with barricades.
8	Monterey cypress	10.5	fair	fair	5	high	Young, healthy tree at edge of proposed driveway/Proper root pruning during construction will reduce impacts to moderate level, protect with barricades.

Tree #	Species	Diameter	Health	Structure	CRZ	Potential Impact: Low Moderate High	Comments/Recommendations
9	Monterey cypress	7.5	fair	fair	5	moderate	young tree with suppressed canopy. 6 feet from proposed wall. Proper root pruning if necessary, protect with barricades.
10	Monterey cypress	15	fair	fair	8	high	Young tree with suppressed canopy. At edge of proposed driveway/Proper root pruning during construction. Protect with barricades.
11	Monterey cypress	13.2	fair	fair	7	high	Young tree with suppressed canopy. At edge of proposed driveway/Proper root pruning during construction will reduce impacts to moderate level. Protect with barricades.
12	Monterey cypress	13.7	good	fair	7	low	Young healthy tree, 20 feet from proposed driveway/Protect with fencing and barricades.

Tree #	Species	Diameter	Health	Structure	CRZ	Potential Impact: Low Moderate High	Comments/Recommendations
13	Monterey cypress	12.3 & 9.5	good	fair	8	moderate	Young tree with two main stems, 14 feet from proposed driveway/Protect with fencing and barricades.
14	Monterey cypress	9.8	fair	fair	5	moderate	Small tree with previous branch failure, 6 feet from driveway/Protect with barricades.
15	Monterey cypress	27.4	fair	good	15	high	Tall, mature tree with thinning canopy. Growing at edge of proposed driveway. If grade changes or excavation is necessary root system must be spanned in an area 6 feet on either side of trunk. Implementation of alternative construction methods will reduce impacts to moderate level. Protect with barricades
16	Monterey cypress	9.2	fair	fair	5	low	Young tree, 12 feet from proposed driveway/Protect with fencing and barricades

Tree #	Species	Diameter	Health	Structure	CRZ	Potential Impact: Low Moderate High	Comments/Recommendations
17	Monterey cypress	15.8	good	fair	7	low	Long branch extends 19 feet from trunk, over proposed driveway/Clearance pruning may be required, protect with fencing and barricades.
18	Monterey cypress	26.4	fair	good	15	moderate	Minor thinning, high symmetrical canopy, 12 feet from proposed driveway/Protect with fencing and barricades.
19	Monterey cypress	22.5	good	good	15	moderate	High symmetrical canopy, 6 feet from proposed driveway and wall/Construct wall on piers to span root system 6 feet on either side of trunk. Protect with barricades.
20	Monterey cypress	28.2	good	good	15	low	Healthy tree with symmetrical canopy, 16 feet from proposed driveway/Protect with fencing and barricades.

Tree #	Species	Diameter	Health	Structure	CRZ	Potential Impact: Low Moderate High	Comments/Recommendations
21	Monterey cypress	23.4	good	good	15	low	Healthy mature tree, slight lean in main trunk, 16 feet from proposed driveway/Protect with fencing and barricades.
22	Monterey cypress	58.8	fair	poor	43	low	Large mature tree with high canopy. Three large areas of decay at base that penetrate trunk to a depth of 2 feet. 25 feet from proposed driveway/Protect with fencing and barricades.
23	Monterey cypress	7.2 & 7	good	fair	5	low	Short tree with 2 stems, 16 feet from proposed driveway/Protect with fencing and barricades.
24	Monterey cypress	25 & 9	good	good	15	high	Long low branch extends approx 20 feet from trunk, healthy canopy. Growing at edge of driveway/Long low branch will require pruning, driveway must span root zone 6 feet either side of trunk. Implementaiton of alternative construction methods will reduce impacts to moderate level. Protect with barricades.

Tree #	Species	Diameter	Health	Structure	CRZ	Potential Impact: Low Moderate High	Comments/Recommendations
25	Monterey cypress	17.5	fair	fair	9	high	Minor thinning, 4 feet from proposed driveway/Driveway must span root zone, implementation of alternativve construction methods will reduce impacts to moderate level, protect with barricades.
26	Monterey cypress	9	fair	fair	5	high	Tall, low live crown ratio (canopy concentrated at top of tree), at edge of proposed driveway/Driveway must span root zone, alternative construction methods will reduce impacts to moderate level. Protect with barricades.
27	Monterey cypress	16.2	fair	fair	8	moderate	Tall , low live crown ratio, 12 feet from proposed driveway/Protect with fencing and barricades.
28	Monterey cypress	15	good	good	8	high	Healthy tree with symmetrical canopy, growing between existing driveway and proposed wall/Proper root pruning if necessary-avoid damage to roots when existing asphalt is removed.

Tree #	Species	Diameter	Health	Structure	CRZ	Potential Impact: Low Moderate High	Comments/Recommendations
29	Monterey cypress	7	fair	fair	5	high	Single trunk, low live crown ratio, growing between existing driveway and proposed wall/Proper root pruning if necessary-avoid damage to roots when existing asphalt is removed.
30	Monterey cypress	14.4	good	good	7	high	Short tree with spreading canopy, growing between existing driveway and proposed wall/Proper root pruning if necessary-avoid damage to roots when existing asphalt is removed.
31	Monterey pine	8	poor	fair	4	high	Young pine, dieback and pitch exudation-early stages of pitch canker disease/Within proposed driveway. Remove and replace with one pine.
32	Monterey cypress	29.3	poor	poor	21	high	two main stems extend over existing driveway, both completely decayed and at risk of failure. 6 feet from proposed wall/If existing driveway remains in place removal is recommended due to risk of failure, if retained the wall must be installed on piers and span root system. Alternative construction methods will reduce impacts to moderate level. Protect with barricades.

Tree #	Species	Diameter	Health	Structure	CRZ	Potential Impact: Low Moderate High	Comments/Recommendations
33	Monterey cypress	5.2	good	good	5	moderate	Young, healthy tree at edge of existing driveway/Protect with fencing and barricades.
34	Monterey pine	5.8	fair	fair	5	moderate	young tree growing between proposed wall and existing driveway/Protect with fencing and barricades.
35	Monterey pine	17	fair	fair	9	high	Leaning structure, growing between proposed garage and wall/Proper root pruning during construction will reduce impacts to moderate level, protect with fencing and barricades.
36	Monterey pine	13.8	poor	poor	8	high	DEAD-Remove

Tree #	Species	Diameter	Health	Structure	CRZ	Potential Impact: Low Moderate High	Comments/Recommendations
37	Monterey cypress	7	poor	poor	5	high	Young tree with sparse foliage, within footprint of proposed garage, consider removal due to condition, if removal is not approved professionally relocate on site.
38	Monterey cypress	17	good	good	9	moderate	Short tree with wide spreading canopy, 6 feet from proposed wall/Protect with fencing and barricades, proper root pruning if necessary.
39	Monterey cypress	12	fair	fair	6	moderate	Thin foliar canopy, dead top-8 feet from proposed garage/Protect with fencing and barricade, proper root pruning if necessary.
40	Monterey cypress	24.8	good	good	12	moderate	Single trunk with symmetrical canopy, 8 feet from proposed garage/Proper root pruning during construction, protect with fencing and barricades.

Tree #	Species	Diameter	Health	Structure	CRZ	Potential Impact: Low Moderate High	Comments/Recommendations
41	Monterey cypress	21	fair	fair	11	low	2 stem divide at 7' above grade-16 feet from proposed garage/Protect with fencing and barricades.
42	Monterey cypress	14	fair	fair	7	low	Suppressed foliar canopy, leaning structure, 20 feet from proposed garage/Protect with fencing and barricades.
43	Monterey cypress	9	fair	fair	5	low	Sparse foliar development, 8 feet from proposed wall/Protect with fencing and barricades.
44	Monterey cypress	30.1	good	good	15	low	Mature tree with tall symmetrical canopy 16 feet from proposed wall/Protect with fencing and barricades.

Tree #	Species	Diameter	Health	Structure	CRZ	Potential Impact: Low Moderate High	Comments/Recommendations
45	Monterey pine	7.5	good	good	5	high	young healthy tree, 5 feet from proposed wall/Proper root pruning if necessary, protect with fencing and barricades.
46	Monterey cypress	31.1	good	good	15	moderate	Mature, single trunk with high symmetrical canopy-8 feet from proposed wall/Proper root pruning during construction, protect with fencing and barricades.
47	Monterey pine	13	fair	poor	7	low	Sparse foliar development, broken at top- 8 feet from proposed wall/Protect with fencing and barricades, root prune if necessary.
48	Monterey cypress	24.5	fair	fair	12	low	thinning upper canopy-40 feet from potential impacts/Protect with fencing and barricades.

Tree #	Species	Diameter	Health	Structure	CRZ	Potential Impact: Low Moderate High	Comments/Recommendations
49	Monterey cypress	15.5	good	good	8	low	short, health tree 25 feet from potential impacts/Protect with fencing and barricades.
50	Monterey cypress	20.5	good	good	10	low	Healthy tree with single trunk-40 feet from potential impacts/Protect with fencing and barricades.
51	Monterey cypress	52.2	fair	poor	39	low	Large, over mature tree, pockets of decay at base, decay cavity at 15' above grade. Large diameter dead branching in upper canopy/Requires safety pruning (removal of dead branching only). Thirty feet from potential impacts/Protect with fencing and barricades.
52	Monterey cypress	7.7	fair	fair	5	high	young tree with thin canopy, at edge of proposed wall/Proper root pruning, protect with barricades.

Tree #	Species	Diameter	Health	Structure	CRZ	Potential Impact: Low Moderate High	Comments/Recommendations
53	Monterey cypress	4.5	fair	fair	5	high	young tree with thin canopy, at edge of proposed wall/Proper root pruning, protect with barricades.
54	Monterey cypress	20.3 16.5 17.2	good	good	15	low	Healthy tree with 3 main stems/Outside construction area, protect with fencing and barricades.
55	Monterey cypress	24	good	fair	12	low	Failed in past, portion on the ground. Outside construction area/Protect with fencing and barricades.
56	Monterey cypress	17.3	good	fair	8	low	Area of decay at base, long weighted stem(23 feet). Outside construction area/Prop may be required to aid stability. Protect with fencing and barricades.

Tree #	Species	Diameter	Health	Structure	CRZ	Potential Impact: Low Moderate High	Comments/Recommendations
57	Monterey cypress	23.5	good	fair	12	low	Main trunk leans, large area of decay (4 feet). Outside construction area/Protect with fencing and barricades.
58	Monterey cypress	12.9	good	good	6	low	Healthy tree with lean/Protect with fencing and barricades
59	Monterey cypress	17.2	good	good	9	low	Healthy tree with symmetrical canopy/Protect with fencing and barricades.
60	Monterey cypress	22.4	fair	fair	12	moderate	Healthy tree, 8 feet from proposed driveway/Proper root pruning during construction. Protect with fencing and barricades.

Tree #	Species	Diameter	Health	Structure	CRZ	Potential Impact: Low Moderate High	Comments/Recommendations
61	Monterey pine	35.5	good	good	18	moderate	Large mature tree with medium to large size dead branching. Infested with Red Turpentine Beetles. Six feet from proposed driveway./Proper root pruning during construction, protect with barricades.
62	Monterey cypress	17	good	good	10	moderate	Healthy tree, 14 feet from proposed driveway/Protect with fencing and barricades.
63	Monterey cypress	7.3	fair	fair	5	moderate	Young tree with sparse canopy-growing within a small grove. Eight feet from proposed driveway/Protect with barricades.
64	Monterey cypress	6.2	fair	fair	5	high	Young tree with sparse canopy-growing within a small grove. Eight feet from proposed driveway/Protect with barricades.

Tree #	Species	Diameter	Health	Structure	CRZ	Potential Impact: Low Moderate High	Comments/Recommendations
65	Monterey cypress	6.5	poor	poor	5	high	Large wound on trunk, sparse foliar development. Ten feet from proposed driveway/Protect with fencing and barricades.
66	Monterey cypress	19.5	good	poor	15	high	Growing within a few feet of existing residence, 8 feet from proposed driveway. Large (8') elliptical shaped wound on main stem, extensive decay. Tree is at risk of failure and removal application has been submitted.
67	Monterey cypress	10.8	fair	fair	5	high	sparse foliage, suppressed growth. Eight feet from proposed driveway/Protect with fencing and barricades.
68	Monterey cypress	23.4	good	poor	15	high	Growing adjacent to tree #66, several feet from existing residence. Large diameter elliptical shaped wound on main stem at 30 feet above grade. Wound is decayed and wood strength compromised. Tree is at risk of failure and removal application has been submitted.

Tree #	Species	Diameter	Health	Structure	CRZ	Potential Impact: Low Moderate High	Comments/Recommendations
69	Monterey cypress	34.2	good	good	18	high	Healthy tree with symmetrical canopy/Protect with fencing and barricades.
70	Monterey cypress	12.1	fair	fair	6	high	Minor dieback in upper canopy-6 feet from wall/Wall must be placed on piers with grade beam spanning natural grade. Alternative construction methods will reduce impacts to moderate level/Protect with barricades.
71	Monterey cypress	14.3	poor	poor	10	high	DEAD
72	Monterey cypress	17.1	fair	fair	8	high	Low live crown ratio, 6 feet from proposed wall/Wall must be placed on piers with grade beam spanning natural grade. Alternative construction methods will reduce impacts to moderate level/Protect with barricades.

Tree #	Species	Diameter	Health	Structure	CRZ	Potential Impact: Low Moderate High	Comments/Recommendations
73	Monterey cypress	14.3	fair	fair	7	high	Low live crown ratio, sparse foliar development 4 feet from proposed wall/Proper root pruning during construction will reduce impacts to moderate level, protect with barricades.
74	Monterey cypress	19.5	fair	fair	10	high	Suppressed canopy 8 feet from proposed wall/Proper root pruning during construction will reduce impacts to moderate level, protect with barricades.
75	Monterey cypress	49	poor	poor	36	moderate	14 feet from proposed wall/Proper root pruning, protect with barricades.
76	Monterey cypress	22.5	fair	fair	13	high	Two main stems, one laying on ground. Six feet from proposed wall/Proper root pruning during construction will reduce impacts to moderate level, protect with fencing and barricades.

Tree #	Species	Diameter	Health	Structure	CRZ	Potential Impact: Low Moderate High	Comments/Recommendations
77	Monterey cypress	4.8	fair	fair	5	high	Young tree adjacent to proposed wall/Protect with barricades.
78	Monterey cypress	7.2	fair	fair	5	high	Young tree adjacent to proposed wall/Protect with barricades.
79	Monterey cypress	33.5	fair	fair	18	low	Growing between 17 Mile Drive and proposed wall/Protect with barricades.
80	Monterey cypress	22.1	fair	fair	13	low	Growing between 17 Mile Drive and proposed wall/Protect with barricades.

Tree #	Species	Diameter	Health	Structure	CRZ	Potential Impact: Low Moderate High	Comments/Recommendations
81	Monterey cypress	37.8	poor	poor	28	low	Growing between 17 Mile Drive and proposed wall/Protect with barricades.

TREE PRESERVATION SPECIFICATIONS

Contractors and sub contractors should be aware of and provided copies of the tree protection guidelines and restrictions before entering the site. Contracts should incorporate tree protection language that includes "damage to protected trees will be appraised using the Guide to Plant Appraisial 9th Edition and monetary fines assessed".

Establishment of a tree preservation zone (TPZ)

Fencing shall be installed in areas defined on the attached map. Fencing will be installed prior to equipment staging or site distrurbance. Fencing placment will be inspected by the project arborist.

Straw Bale Barricades

Straw bales placed end to end will be installed inside the protection fencing as shown in the photo below. This barricade will limit damage to the fencing and prevent grading spoils from encroaching into the critical root zone area and help stop excess moisture from gathering under the retained trees.

Restrictions within the TPZ of existing trees

No storage of construction materials, debris, or excess soil will be allowed within the TPZ. Parking of vehicles or construction equipmentwill be allowed in defined areas olny. Solvents or liquids of any type should be disposed of properly, never within this protected area.

Minimize soil compaction on the construction site

Protect the soil surface with a deep layer (at least three inches) of mulch (tree chips). The addition of mulch will reduce compaction, retain moisture, and stabilize soil temperature. Areas where equipment and personnel are concentrated will be mulched to a depth of at least six inches.

Alteration of grade

Maintain the natural grade around trees. No additional fill or excavation will be permitted within the critical root zone. If trees roots are unearthed during the construction process the consulting arborist will be notified immediately. Exposed roots will be covered with moistened burlap until a determination is made by the project arborist.

Trenching requirements

Any areas of proposed trenching will be evaluated with the consulting arborist and the contractor prior to construction. All trenching on this site will be approved by the project arborist. Tree roots encountered will be avoided or properly pruned under the guidance of the consulting arborist.

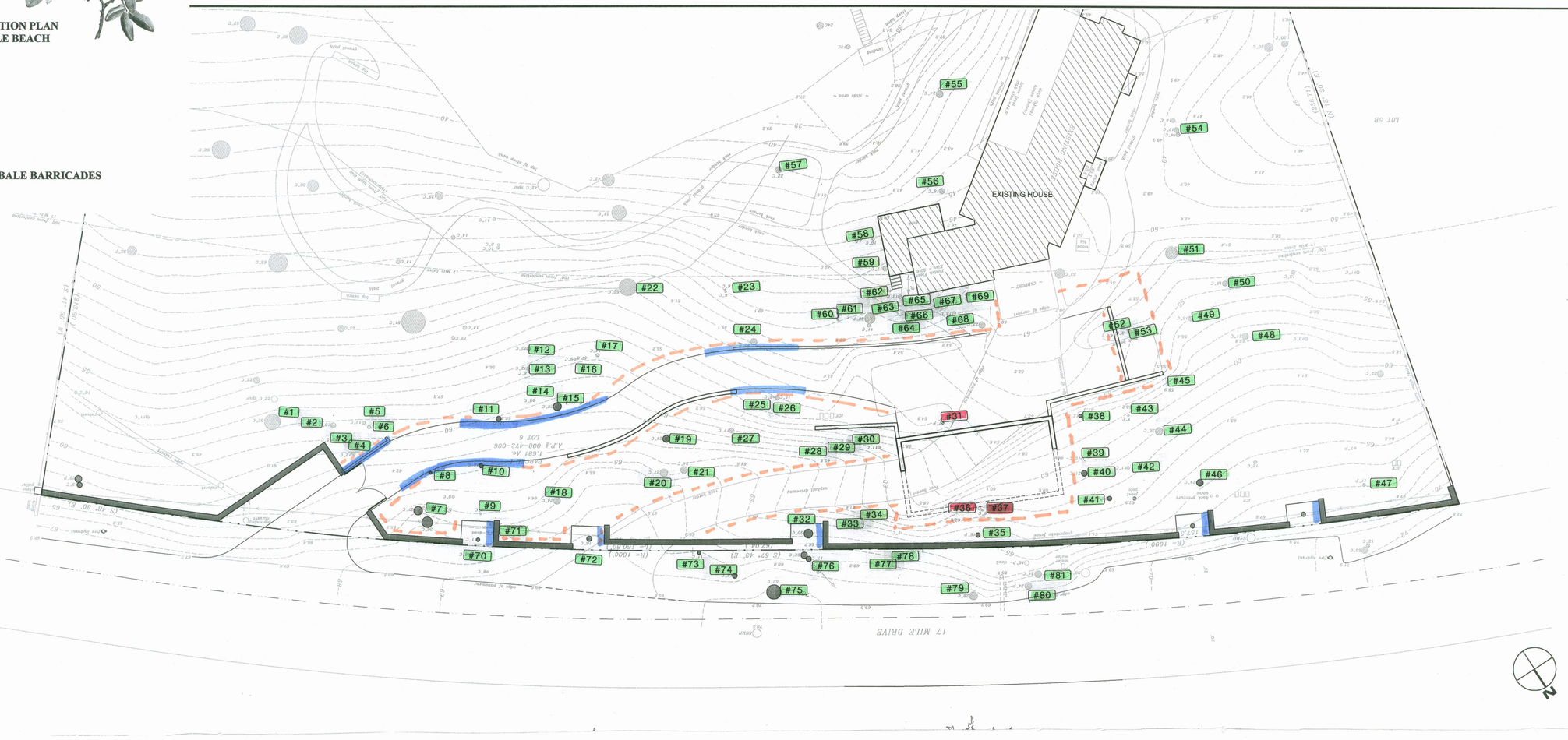
Tree canopy alterations

Unauthorized pruning of any tree on this site will not be allowed. If any tree canopy encroaches on the building site the required pruning will be done on the authority of the consulting arborist and to ISA pruning guidelines and ANSI A-300 pruning standards.

Maureen Hamb-WCISA Certified Arborist #2280
Professional Consulting Services

TREE LOCATION & PROTECTION PLAN
3224 17 MILE DRIVE, PEBBLE BEACH
April 2011

- **PROTECT IN PLACE**
- **REMOVE OR RELOCATE**
- **SPECIAL CONSTRUCTION AREA**
- **EXCLUSIONARY FENCING AND STRAW BALE BARRICADES**



GEOTECHNICAL INVESTIGATION
For
PROPOSED NEW DRIVEWAY ALIGNMENT, SITE WALL AND DETACHED 4-CAR GARAGE
LUNDQUIST PROPERTY
3224 17-Mile Drive
Pebble Beach, California
APN 008-472-006

Prepared For
MR. AND MRS. LUNDQUIST
In care of
Carver + Schicketanz Architects

Prepared By
HARO, KASUNICH AND ASSOCIATES, INC.
Geotechnical & Coastal Engineers
Project No. M10146
May 2011

Project No. M10146
18 May 2011

Richard and Melanie Lundquist
c/o Carver + Schicketanz Architects
P.O. Box 2684
Carmel, California 93921

Subject: Geotechnical Investigation

Reference: Proposed New Driveway, Detached 4-Car Garage and Privacy Wall
3224 Seventeen Mile Drive
Pebble Beach, California
APN 008-472-006

In accordance with your authorization, we have performed a Geotechnical Investigation for the referenced project in Pebble Beach, California.

In summary, the site appears compatible with the proposed driveway, privacy wall and 4-car detached garage. Typical grading recommendations, conventional foundations for the garage and drainage recommendations are anticipated for this project. Where the privacy wall is positioned on the outboard fill slope that supports the road bed of 17-Mile Drive, footings will have to be deepened or piered to penetrate the fill and embed in firm native soil. The alignment may have to be adjusted to avoid existing underground utilities. Refer to the contents of this report for details.

We are available for consultation during the design stage on a time and materials basis, should you have any questions.

Prior to submittal to the County or prospective bidding contractors, we must review the project civil, drainage, structural and architectural plans to check if the geotechnical recommendations have been properly interpreted and implemented in design of the plans.

We must also observe and test earthwork and excavations during construction for compliance to our recommendations. Refer to the Grading Section of this report for scheduling.

The five accompanying report copies present our conclusions and recommendations, as well as the results of the geotechnical investigation on which they are based.

If you have any questions concerning the data or conclusions or recommendations presented in this report, please call our office.

Respectfully Submitted,

HARO, KASUNICH & ASSOCIATES, INC.

Vicki Odello
C.E. 52651

VO/vo

Copies: 5 to Addressee

Project No. M10146
18 May 2011

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Project No. M10146
18 May 2011

GEOTECHNICAL INVESTIGATION

Introduction

This report summarizes the findings, and presents the conclusions and recommendations from our geotechnical investigation for a privacy wall, new driveway alignment and detached 4-car garage located at 3224 17-Mile Drive, Pebble Beach, California. Refer to Site Vicinity Map (Figure No. 1) attached to this report.

During our investigation we referenced a proposed site plan by Carver + Schicketanz Architects showing existing topography and structures dated 28 April 2011. Our Boring Site Plan (see Figure 2) is based a copy of the site plan.

As the project plans have not been finalized, some of the recommendations presented in this report are general in nature. We should be provided an opportunity to review project plans once they have been developed to verify that the intent of our geotechnical recommendations have been met.

Purpose and Scope

The purpose of our investigation was to explore and evaluate subsurface conditions at the site and to provide geotechnical criteria and recommendations for design and construction of the proposed project. The specific scope of our services was as follows:

1. Review data in our files pertinent to the site.
2. Explore the subsurface conditions at the site with ten hand augered exploratory borings drilled to depths of up to 7.5 feet.
3. Field and laboratory testing of selected soil samples to determine their pertinent engineering properties.
4. Analyze the resulting data to develop geotechnical design criteria for building foundations, retaining walls, slabs-on-grade, general site grading and drainage.
5. Analysis consistency with Appendix G CEQA check list relating to geotechnical issues (see Appendix B)
6. Present the results of our investigation in this report.

Site Location and Conditions

The property is located at 3224 17-Mile Drive in Pebble Beach, California (refer to Figure No.1). The site is located on the west side of the road on a gentle west-facing slope that leads to the coastal bluff and Pacific Ocean. The east property line generally runs along the supporting fill embankment of the west side of 17-Mile drive. The site is developed with a single-family-residence and associated improvements. There is a small gravel-surfaced fill embankment near the existing garage to provide a level parking pad. The fill embankment is about 3 feet high. There are several existing underground utilities in the vicinity of the privacy wall alignment. Existing drainage

improvements include culverts and a drainage swale that discharge collected runoff from 17-Mile drive through the existing site fence onto the property. The culvert continues as an open channel through the property and discharges over the coastal bluff to the granite shelf below. Natural drainage consists of overland flow through the proposed developments.

The site is underlain by weathered decomposed granite with occasional outcroppings of granite on the site.

There were no signs of the potential for soil or slope instability, movement, creep or erosion in the project area. The gentle to moderate slopes appeared stable.

Vegetation at the site consists of occasional plantings and cypress trees.

Project Description

Based on the preliminary plan by Carver + Schicketanz Architects dated 29 April 2011, the project consists of privacy wall, new driveway alignment and detached 4-car garage. The privacy wall will roughly replace the existing privacy fence. The alignment of the new wall is on or very near the toe of the supporting fill wedge of the west side of 17-Mile Drive. The new driveway alignment is about 200 feet in length and will commence just south of the existing entrance; cross the property with cross slopes of about 20

percent; and include a small amount of cut and fill on the order of 4 feet. The one-story 4-car garage will be buried and cut into a moderately sloping hillside. Drainage improvements will include provisions (e.g. culverts, swales and drain inlets) to accommodate anticipated street runoff that will collect on the base of the new privacy wall and other typical mitigations. We assume existing drainage improvements (e.g. culverts) will be continued or updated.

Field Exploration

Subsurface conditions were explored on 9, 10 and 13 May 2011 by drilling a total of ten hand augured exploratory borings to depths of up to 7.5 feet. The borings were advanced with 3-inch diameter hand auger equipment.

Representative soil samples were obtained from the exploratory borings at selected depths, or at major strata changes. These samples were bagged or recovered using a hand driven 2.0 inch O.D. sampler (M). The soils encountered in the borings were continuously logged in the field and described in accordance with the Unified Soil Classification System (ASTM D2488, Visual-Manual Proceeding). The Logs of Test Borings are included in the Appendix of this report. The logs depict subsurface conditions at the approximate locations shown on the Site Plan.

Subsurface conditions at other locations may differ from those encountered at the explored locations. Stratification lines shown on the logs represent the approximate boundaries between soil types. The actual transitions may be gradual.

Laboratory Testing

Soil samples obtained from the borings at selected depths were taken to our laboratory for further examination and laboratory testing. The laboratory testing program was directed toward determining pertinent engineering properties of soil underlying the project site.

Natural moisture contents and dry densities were determined on selected samples and are recorded on the boring logs at the appropriate depths. Since water has a significant influence on soil, the natural moisture content provides a rough indicator of the soil's compressibility, strength, and potential expansion characteristics.

The strength parameters of the underlying earth materials were determined from hand auger resistance of the in-situ soil and on a laboratory direct shear test.

Atterberg limits and hydrometer tests were performed to characterize the expansive potential of selected samples.

The results of the laboratory testing appear on the "Logs of Test Boring" opposite the sample tested.

Subsurface Conditions

Based on our field boring locations, the general soil profile in the vicinity of the proposed garage consists of about 2.5 feet of loose, sandy organic topsoil over medium dense sand or dense weathered decomposed granitic rock. There was about 1½ feet of fill on the gravel surfaced parking pad north of the existing garage. In the vicinity of the proposed driveway the general soil profile consists of up to about 3 feet of fill (at the southern gravel surfaced parking pad) and about 1½ feet of loose topsoil over hard d.g. or moderately expansive clay. In the vicinity of the privacy wall the general profile consists of up to 2½ feet of fill and 2½ feet of loose topsoil over clay or hard d.g. The degree of weathering of the decomposed granite varied across the site. Outcrops of weathered granite appear occasionally on the site. Fill was encountered in Borings 3, 7, 8 and 10. Refer to attached Boring Logs.

The granitic bedrock material, rather than the topsoil, clay or sand provides good support of the proposed structures and flatwork.

Water collected in the bottom of Boring B-1 (7.5 feet) in the garage area. It should be noted that groundwater levels might fluctuate due to variations in rainfall or other factors

not evident during our investigation. If groundwater is encountered in the course of construction, additional recommendations may be necessary.

Seismicity

Detailed studies of seismicity, faulting and other geologic hazards are beyond the scope of this study.

It is highly probable that a major earthquake will occur in northern California during the next 50 years. During a major earthquake epicentered nearby, there is a potential for ground shaking at this site. Structures designed in accordance with the most current CBC should react well to seismic shaking.

Based our observations of the subsurface soil conditions, we have classified the site soil profile as Site Class S_c as defined in Table 1613.5.2 of the CBC 2010.

CONCLUSIONS

Based on the results of our investigation, the proposed development is feasible from a geotechnical standpoint, provided the design criteria and recommendations presented in this report are incorporated into the design and construction of the project.

Geotechnical considerations at the proposed site include proper drainage control; providing firm, uniform bearing support for foundations, providing adequate lateral support for foundations on slopes, avoidance of loose soil layers, wet and expansive clay layers, and the potential for seismic shaking.

Based on our 10 exploratory holes drilled throughout the project and our observations the site slopes are composed of decomposed granite and are stable.

The potential for liquefaction or liquefaction induced distress is nil due to the bedrock nature of the site.

Anticipated total and differential settlement is expected to be approximately 1 inch for both.

DISCUSSION AND RECOMMENDATIONS

Privacy Wall: Anticipate runoff that will collect against the base of the proposed privacy wall and provide adequate provisions for its removal. The foundation for the wall should be deepened or piered (especially near B-10) to penetrate the outboard fill wedge of 17-Mile Drive and buried loose topsoil horizon and any perched water. Also the wall foundation should be deepened to gain lateral capacity to accommodate the sloping grade. Care must be taken to not undermine the 17-Mile Drive fill wedge. Review the proposed privacy wall alignment to ensure it does not encroach into the existing underground utilities and adjust as necessary. Maintain or upgrade culverts and drainage swales the currently pass beneath the fence.

Driveway: Grading may expose seeps in the cuts which should be accommodated with adequate drainage provisions. Rock outcrops may be encountered and may be more difficult to excavate. Where the new driveway alignment encroaches on the old fill parking pad embankments, the fill must be removed and replaced to designed grade. Where rough grading exposes undesirable soil (clay, topsoil, fill, loose or wet material) the undesirable material must be removed and replaced with engineered fill. Foundations for the driveway walls must penetrate undesirable soil and embed in firm material.

Garage: The native dense decomposed granite encountered below the loose topsoil (rather than the topsoil itself) provides excellent support of foundations for the proposed structures. Where grading does not remove the loose topsoil, footings should be deepened to penetrate the loose soil and embed in the bedrock beneath. If topsoil or undesirable soil (clay, topsoil, fill, loose or wet material) is encountered under slabs and flatwork, it should be removed and replaced with engineered fill. Any seeps encountered should be controlled by the retaining wall back drain. The slab subgrade should include a drain manifold should seepage collect under the slab.

Proper roof, surface and subsurface drainage and erosion control is recommended throughout the project. Refer to the Drainage Section of this report.

As requested, refer to Appendix B for CEQA Selected Checklist Items.

The following recommendations should be used as guidelines for preparing project plans and specifications.

Plan Review Notice

Haro, Kasunich & Associates should be provided an opportunity to review the project plans during the design phase prior to County submittal, cost estimating and construction. The review provides an opportunity to check if our recommendations

have been interpreted properly, which could reduce possible confusion and costly changes and time delays during construction. Please contact our office:

Haro, Kasunich and Associates, Inc.
116 E. Lake Avenue
Watsonville, Ca 95076
831-722-4175

Construction Observation Notice

Haro, Kasunich and Associates should provide observation and testing services for earthwork performed at the project site. The observation and testing of earthwork allows for evaluation of contractors' compliance with our geotechnical recommendations. It also allows us the opportunity to confirm that actual soil conditions encountered during construction are essentially the same as those anticipated based on the subsurface exploration. Unusual or unforeseen soil conditions may require supplemental evaluation by the geotechnical engineer.

The County of Monterey usually requires a final grading and/or foundation compliance letter. We can only offer this letter if we are called to the site to observe and test, as necessary, any grading and excavation operations **from the start of construction**. We cannot prepare a letter if we are not afforded the opportunity of observation from the **beginning of the grading operation**. The contractor must be made aware of this and earthwork testing and observation must be scheduled accordingly. Please contact our office:

Haro, Kasunich and Associates, Inc.
116 E. Lake Avenue
Watsonville, Ca 95076
831-722-4175

Site Grading

1. The geotechnical engineer should be notified **at least four (4) working days prior to any grading or foundation excavating** so the work in the field can be coordinated with the grading contractor, and arrangements for testing and observation can be made. The recommendations of this report are based on the assumption that the geotechnical engineer will perform the required testing and observation during grading and construction. It is the owner's responsibility to make the necessary arrangements for these required services.

2. If grading is performed in a wet condition, compaction may be difficult, pumping or bringing the water to the surface may occur. It may be necessary to over-excavate the subgrade soil and replace with crushed rock to stabilize.

3. Where referenced in this report, Percent Relative Compaction and Optimum Moisture Content shall be based on ASTM Test Designation D1557-09.

4. The dense d.g. (rather than the topsoil) provides good support of the proposed driveway, slabs and flatwork. If topsoil or other undesirable material (clay, wet, loose or

old fill) is encountered, it should be removed and replaced with engineered fill under flatwork.

5. Engineered fill that supports slabs, pavements and flatwork should extend at least 1 foot beyond the perimeter, in all directions.

6. Areas to be graded should be cleared of all obstructions, including trees not designated to remain and other unsuitable material. Existing depressions or voids created during site clearing should be backfilled with engineered fill.

7. Cleared areas should then be stripped of organic-laden topsoil. Strippings should be wasted off-site or stockpiled for use in landscaped areas if desired.

8. Stripped areas should be cut to desired grades.

9. Slabs should be supported on at least 6 inches of angular, granular material. Any exposed undesirable or loose soil exposed beneath proposed flatwork and granular layer should be removed and replaced with an engineered fill.

10. Areas to receive engineered fill should be scarified 6 inches, moisture conditioned and compacted to 90 percent relative compaction. Engineered fill should be placed in

thin lifts not exceeding 6 inches in loose thickness, moisture conditioned, and compacted to a minimum of 90 percent relative compaction.

11. The upper 6 inches of subgrade and aggregate base sections below pavements should be moisture conditioned should be compacted to at least 95 percent relative compaction. Refer to pavement section of this report.

12. The on-site non-clayey soil generated from the site is suitable for use as engineered fill. Imported fill should be free of non-expansive, organic material, and contain no rocks or clods greater than 6 inches in diameter, with no more than 15 percent larger than 4 inches. Imported soil should also have a Plasticity Index (P.I.) less than 15.

13. Fill slopes should be inclined no steeper than 2:1 (horizontal to vertical) for heights up to 8 feet. Fills situated on slopes of 20% to 50% in gradient should be drained, keyed and benched into firm native material. All keys and benches should be drained. Fills should not be situated on slopes steeper than 50%, in gradient. Cut and fill slopes should be protected from erosion by intercepting runoff from spilling over fresh slopes. Lined V-ditches and/or berms may be considered.

14. Cut slopes in rock may be inclined at a 1.5:1 (H:V) slope for heights up to 10 feet and 1:1 for heights up to 5 feet. Slopes exposing soil should be cut at 2:1 (H:V).

15. The contractor should be aware that slope height inclination, or excavation depths (including utility trench excavations) should in no case exceed those specified in local, state or federal safety regulations, i.e. OSHA Health and Safety Standards for Excavations, 29 CFR Part 1926, or successor regulations.

16. Following grading, exposed bare slopes and soil should be planted or covered as soon as possible with erosion resistant vegetation or blanket.

17. After the earthwork operations have been completed and the geotechnical engineer has finished his observation of the work, no further earthwork operations shall be performed except with the approval of and under the observation of the geotechnical engineer.

Spread Footing Foundation System

18. The garage and site walls that are positioned on level ground may be supported on conventional spread footings founded entirely in firm native d.g. encountered beneath the topsoil. However, where the privacy wall is situated on the sloping supporting fill

wedge of 17 Mile Drive, the footings must be deepened or piered to penetrate the fill, buried loose topsoil and perched water and gain adequate lateral support.

19. Where grading does not remove topsoil and/or loose soil, footings should be deepened to penetrate loose soil and embed into firm native d.g.

20. Where structures are situated on or near steep slopes for proper hillside lateral confinement, there should be a horizontal distance of at least 15 feet between the base of all foundation elements and the surface of adjacent native slopes. Depending on steepness of adjacent hillsides, piers may be used rather than deepened footings.

21. Spread footings should deepened to penetrate all undesirable material and be embedded a minimum of 12 inches (as measured from the lowest adjacent grade) into firm native d.g. Footings will be deeper where situated on slopes; in fill or undesirable soils or perched water.

22. Where footing depths exceed about 4 feet, structurally designed drilled piers in association with grade beams may be more economical.

23. Foundations should have horizontal bases and be stepped where situated on sloping ground.

24. The foundation trenches must be kept thoroughly moist and be thoroughly cleaned of all slough or loose material prior to pouring concrete.

25. Footings located adjacent to other footings or utility trenches should have their bearing surfaces founded below a 1.5:1 line projected upward from the bottom edge of the adjacent footings or utility trenches.

26. Foundations designed in accordance with the above may be designed for an allowable soil bearing pressure of 3,000 in firm native d.g. for dead plus live loads. This value may be increased by one-third to include short-term seismic and wind loads.

27. Lateral load resistance for structures supported on spread footings may be developed in friction between the foundation bottom and the supporting subgrade. Friction coefficients of 0.35 are considered applicable. Alternately, where shallow footings are poured neat against firm native d.g., a passive resistance equivalent to a fluid weighing 300 pcf may be used.

28. All footings should be reinforced in accordance with applicable UBC and/or ACI standards, however, we recommend the footings contain a minimum steel reinforcement of four (4) No. 4 bars; i.e., two near the top and two near the bottom of the footing.

29. The footing excavations should be **thoroughly cleaned and observed by the geotechnical engineer prior to placing forms and steel**, to verify subsurface soil conditions are consistent with the anticipated soil conditions so that the county required foundation excavation conformance letter can be prepared.

30. Prior to pouring concrete excavations should be thoroughly moisture conditioned so that the soil is allowed to absorb the water.

Pier and Grade Beam Foundation System

31. Pier and grade beam foundations should be used where structures are situated on or over sloping ground where deepened footings are less feasible.

32. A resisting lateral earth passive pressure of 300 pcf may be assumed to act on 2 times the pier diameter for that portion of the pier embedded greater than 4 feet deep and embedded in dense d.g. The total passive force increases with depth to a maximum limit equivalent to 6 feet.

33. The piers should penetrate loose soil, fill and perched water and embed a minimum of 2 feet into dense native d.g.

34. The concrete piers should be a minimum of 12 inches in diameter and vertically reinforced the full length with at least two #4 bars. The vertical reinforcement should be tied to the upper grade beam reinforcement. The structural designer should determine actual reinforcement.

35. Piers designed in accordance with the above may be designed for an allowable end bearing capacity of 3,000 psf plus a one-third increase for short term wind and seismic loads.

36. There should be a horizontal distance of at least 15 feet between the bottom of piers and the surface of adjacent slope.

37. The geotechnical engineer should be present during pier drilling to verify anticipated subsurface conditions and verifying adequate pier depths. **Prior to placing steel and concrete**, all pier excavations should be thoroughly cleaned and observed by the geotechnical engineer.

38. Prior to pouring concrete excavations should be thoroughly moisture conditioned so that the soil is allowed to absorb the water.

Retaining Wall Lateral Pressures

39. Foundations for retaining walls should follow the criteria in the foundation section of this report.

40. Retaining walls should be designed to resist both lateral earth pressures and any additional surcharge loads. For design of retaining walls up to 12 feet high and fully drained, the following design criteria may be used:

A. Active earth pressure for walls **allowed to yield** is that exerted by an equivalent fluid weighing 35 pcf for a level backslope gradient; and 50 pcf for a 2:1 (horizontal to vertical) backslope gradient. This assumes a fully drained condition.

B. Where walls are restrained from moving at the top, design for a uniform rectangular distribution equivalent to 25 H psf per foot for a level backslope, and 35 H psf per foot for a 2:1 backslope, where H is the height of the wall.

C. In addition, the walls should be designed for any adjacent live or dead loads that exert a force on the wall.

D. To account for seismic loading, a horizontal line load surcharge equal to $10H^2$ pounds per linear foot of wall may be assumed to act at 0.6H above the base of the wall (where H is the height of the wall).

E. A coefficient of friction between base of foundation and native d.g. of 0.35 may be used. Alternatively, where footings are poured neat against firm native material, a passive resistance equivalent to a fluid weighing 300 pcf may be used. If founded on piers, see criteria in pier and grade beam foundation system.

F. The above lateral pressure values assume that the walls are fully drained to prevent hydrostatic pressure behind the walls. Drainage materials behind the wall should consist of Class 1, Type A permeable material complying with Section 68 of Caltrans Standard Specifications, latest edition, or approved equivalent.

G. The drainage material should be at least 12 inches thick and extend from the base of the wall to within 12 inches of the top of the backfill.

H. Wall backdrains should be capped at the surface with clayey material to prevent infiltration of surface runoff into the backdrains. A layer of filter fabric (Mirafi 140N or equivalent) should separate the subdrain material from the overlying soil cap.

I. Retaining walls that act as interior house walls should be **thoroughly** waterproofed their full height especially at the cold joint at the base of the wall.

J. The base of the gravel column should be made impermeable. The heel of the foundation should be cupped and water proofed to allow water to build

up and enter drain pipe. A perforated rigid drain pipe should be placed (holes down) about 4 inches above the cupped heel of the wall and be tied to a suitable solid rigid drain outlet. The cold joint at the heel should be plugged with a wedge of concrete or poured with rubber gasket type plug.

K. We defer moisture proofing and water proofing recommendations to interior wall and floor covering manufacturer's suggested specifications and/or a moisture/water-proofing expert.

Concrete Slabs-on-Grade

41. Building floor slabs and exterior slabs should not be supported on expansive or loose topsoil. They should be supported on a minimum of 6 inches of angular, granular material over subgrades of firm native. Soil subgrades should be prepared as recommended in the section entitled "Site Grading".

42. Loose, wet or expansive soil exposed under flatwork should be removed and replaced with engineered fill (and 1 foot beyond for exterior flatwork and pavements).

43. Slab reinforcing should be provided in accordance with the anticipated use and loading of the slab, however we recommend a minimum reinforcement of #3 bars spaced 16 inches on-center in both directions. The steel reinforcement should be held

firmly in the vertical center of the slab during placement and finishing of the concrete with pre-cast concrete dobies.

44. Where floor dampness must be minimized or where floor coverings will be installed, concrete slabs-on-grade should be constructed on a capillary break layer at least 6 inches thick and covered with a membrane vapor barrier. Capillary break material should be free draining, clean gravel or rock, such as 3/4-inch gravel. The gravel should be washed to remove fines and dust prior to placement on the slab subgrade. The vapor barrier should be a high quality membrane, such as Moistop by Fortifiber Corporation. A layer of sand about 2 inches thick should be placed between the vapor barrier and the floor slab to protect the membrane and to aid in curing concrete. The sand should be lightly moistened prior to placing concrete. We defer moisture proofing recommendations to floor covering manufacturer's suggested specifications and/or a moisture proofing expert.

45. The slab subgrade should be graded at a 2% slope and fitted with a drain pipe manifold system to remove potential seepage collection form under the slab. There should be a minimum of 12 inches of gravel cover over the pipes. This may be accommodated with trenching.

46. Exterior slab reinforcement should **not** be tied to the building foundations.

47. Slabs can be expected to suffer some cracking and movement. However, thickened exterior edges, a well-prepared subgrade including pre-moistening prior to pouring concrete, adequately spaced expansion and control joints and good workmanship should minimize cracking and movement.

Site Drainage

48. Water runoff must not be allowed to pond adjacent to the privacy wall foundation. Provisions, such as a concrete swale must be made for its immediate removal.

49. Surface naturally flows downhill through the proposed building envelope. Drainage improvements should include provisions to intercept surface water from infiltrating toward new improvements including garage, walls, flatwork and cut/fill grading.

50. Surface drainage improvements may consist of lined v-ditches or surface swales situated upslope from improvements and drain inlets in association with a solid storm drain system.

51. Surface drainage should include provisions for positive gradients so that surface runoff is not permitted to pond adjacent to foundations, flatwork and pavements. Surface drainage should be directed away from the building foundations, flatwork and roads.

52. Runoff must not be allowed to spill over graded slopes or off roadways. Water should be directed to a drain inlet connected to drainage system.

53. Rain gutters should be placed around roof eaves. Discharge from the roof gutters should be conveyed away from the downspouts by solid pipe and dispersed into energy dissipaters located downslope from structures in a way so as not to cause erosion.

54. Collected water may be discharged downslope from improvements in a way so as not to induce erosion. Do not discharge collected water at the top of the coastal bluff. Take water down to the granite shelf where the material is less erodible.

55. The migration of water or spread of extensive root systems below foundations, slabs, or pavements may cause undesirable differential movements and subsequent damage to these structures. Landscaping should be planned accordingly.

56. Basically all cuts are retained and any seeps will be intercepted by the back drain of proposed retaining walls. Where cuts (e.g. along the new driveway) expose seepage other than at retaining wall locations then provisions must be made for its control and discharge in a way so as not to cause erosion.

Utility Trenches

57. Trenches must be properly shored and braced during construction or laid back at an appropriate angle to prevent sloughing and caving at sidewalls. The project plans and specifications should direct the attention of the contractor to all CAL OSHA and local safety requirements and codes dealing with excavations and trenches.

58. Utility trenches that are parallel to the sides of buildings should be placed so that they do not extend below an imaginary line sloping down and away at a 1.5:1 (horizontal to vertical) slope from the bottom outside edge of all footings. The structural design professional should coordinate this requirement with the utility layout plans for the project.

59. Trenches should be backfilled with granular-type material and uniformly compacted by mechanical means to the relative compaction as required by county specifications, but not less than 95 percent under paved areas and 90 percent elsewhere. The relative compaction will be based on the maximum dry density obtained from a laboratory compaction curve run in accordance with ASTM Procedure #01557 -91.

60. We strongly recommend placing a concrete plug in the trench where it passes under foundation lines. Care should be taken not to damage utility lines.

61. Trenches should be capped with about 1½ feet of relatively impermeable soil.

Erosion Control

62. All bare soil and cut and fill slopes should be seeded and mulched immediately after grading with barley, rye, grass and crimson clover or otherwise provided with erosion control measures.

63. Design and construction development timeframe should follow Monterey County Erosion Control Ordinances.

Plan Review, Construction Observation and Testing

64. Haro, Kasunich and Associates should be provided an opportunity to review project plans prior to construction to evaluate if our recommendations have been properly interpreted and implemented. We should also provide foundation excavation observations and earthwork observations and testing during construction. This allows us to confirm anticipated soil conditions and evaluate conformance with our recommendations and project plans. If we do not review the plans and provide observation and testing services during the earthwork phase of the project, we assume no responsibility for misinterpretation of our recommendations.

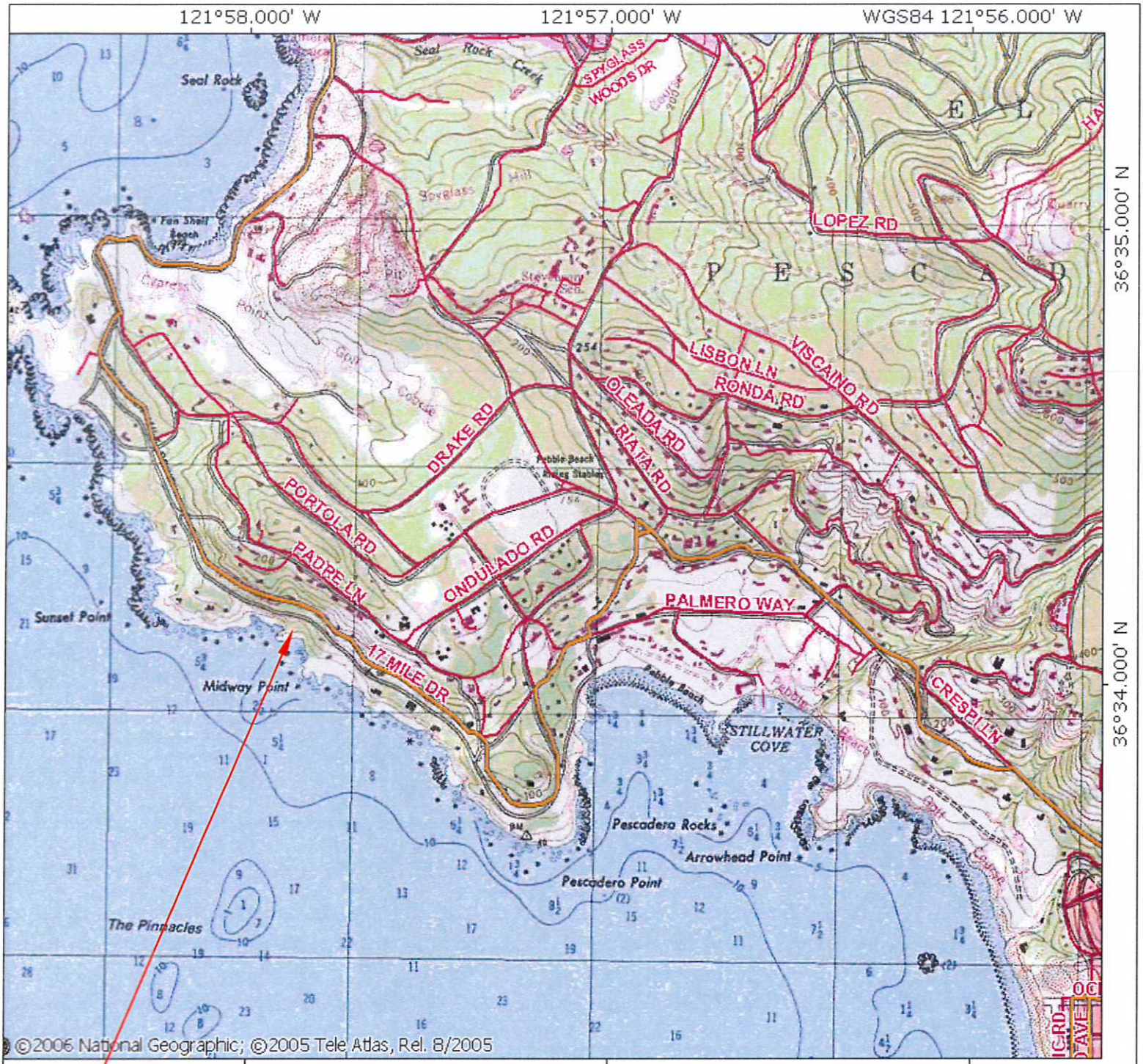
LIMITATIONS AND UNIFORMITY OF CONDITIONS

1. The recommendations of this report are based upon the assumption that the soil conditions do not deviate from those disclosed in the borings. If any variations or undesirable conditions are encountered during construction, or if the proposed construction will differ from that planned at the time, our firm should be notified so that supplemental recommendations can be given.

2. This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information and recommendations contained herein are called to the attention of the Architects and Engineers for the project and incorporated into the plans, and that the necessary steps are taken to ensure that the Contractors and Subcontractors carry out such recommendations in the field. The conclusions and recommendations contained herein are professional opinions derived in accordance with current standards of professional practice. No other warranty expressed or implied is made.

3. The findings of this report are valid as of the present date. However, changes in the conditions of a property can occur with the passage of time, whether they be due to natural processes or to the works of man, on this or adjacent properties. In addition, changes in applicable or appropriate standards occur whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated, wholly or partially, by changes outside our control. Therefore, this report should not be relied upon after a period of three years without being reviewed by a geotechnical engineer.

APPENDIX A



SITE LOCATION

SITE VICINITY MAP
Lundquist Residence
3224 17 Mile Drive, Pebble Beach
Monterey County, California

SCALE: AS SHOWN	
DRAWN BY: JD	
DATE: May 2011	HARO, KASUNICH & ASSOCIATES, INC.
REVISED:	GEOTECHNICAL AND COASTAL ENGINEERS
JOB NO. M10146	116 E. LAKE AVENUE, WATSONVILLE, CA 95076 (831) 722-4175
FIGURE NO. 1	SHEET NO. 30

KEY:

B-1 = HAND AUGERED SOIL BORING LOCATION

= FILL WEDGE

PACIFIC OCEAN

PARCEL II

CHAIN LINK FENCE

(N 7° 55' 45" W) (78.82')

(N 72° 44' W) (261.65')

LOT 7

LOT 5B

(N 13° 30' E) (238.71')

100' FROM CENTERLINE

(S 41° 30' W) (213.90')

100' FROM CENTERLINE OF SEVENTEEN MILE DRIVE

A.P.N. 008-472-006

PARCEL 1, LOT 6

1.681 ACRES

GRAVEL PATH

LOG BENCH

TOP OF STEEP BANK

42°C SPUR

ROCK BORDER

(E) STEPS

STEPS

LANDING

COVERED DECK

EXISTING HOUSE

CONCRETE ENTRY

DECK

WOOD LID

CARPORT

NEW COBBLESTONE DRIVE

PROPOSED GARAGE

FILL

B-1

B-2

B-3

B-4

B-5

B-6

B-7

B-8

B-9

B-10

CULVERT

OPEN CULVERT

ICV (RELOCATE)

ICV

STONE PILLAR

WING WALL

(30.34') (S 48° 39' E)

FIRE HYDRANT

CULVERT BEGINNING

CENTERLINE OF SEVENTEEN MILE DRIVE

EDGE OF PAVEMENT

SEVENTEEN MILE DRIVE

(L= 160.80') (= 9° 13')

(R= 1000')

(67.04') (S 57° 43' E)

LEANS

(L= 157.51') (= 9° 01' 30")

(R= 1000')

WATER METER

JOINT POLE

BACK PRESSURE VALVE

WIRE MESH FENCE

10"C-DEAD

16"P- DEAD

11"P -DEAD

30"C-DEAD

12" CYPRESS - DEAD, TO BE REMOVED

11" PINE - DEAD, TO BE REMOVED

8" CYPRESS - RELOCATE

PERMEABLE COBBLESTONE PAVERS

T.O. WALL +97

T.O. WALL +98

T.O. WALL +99

T.O. WALL +N.F.

T.O. GREEN ROOF +91

GATE CALL BOX

CURB

N

DATE	28 APRIL 2011
SCALE	1/16" = 1'-0"
DRAWN BY	AJ
JOB NUMBER	1026

TITLE: PROPOSED SITE PLAN

LUNDQUIST

SEVENTEEN MILE DRIVE • PEBBLE BEACH, CALIFORNIA

Carver + Schicketanz

ARCHITECTS · PLANNERS · INTERIOR DESIGNERS

PO
PHO
CAR

BORING SITE PLAN

17 Mile Drive, Pebble Beach
Monterey County, California

SCALE:	1" = 1/32"
DRAWN BY:	JD
DATE:	May 2011
REVISED:	
JOB NO.	M10146

site plan from Carver Schicketanz, dated 26 April 2011

HARO, KASUNICH & ASSOCIATES, INC.
GEOTECHNICAL AND COASTAL ENGINEERS
116 E. LAKE AVENUE, WATSONVILLE, CA 95076
(831) 722-4175

FIGURE NO.

SHEET NO. 31

PRIMARY DIVISIONS			GROUP SYMBOL	SECONDARY DIVISIONS
COARSE GRAINED SOILS — MORE THAN HALF OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVELS — MORE THAN HALF OF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE	CLEAN GRAVELS (LESS THAN 5% FINES)	GW	Well graded gravels, gravel-sand mixtures, little or no fines.
			GP	Poorly graded gravels or gravel-sand mixtures, little or no fines.
		GRAVEL WITH FINES	GM	Silty gravels, gravel-sand-silt mixtures, non-plastic fines
			GC	Clayey gravels, gravel-sand-clay mixtures, plastic fines.
	SANDS — MORE THAN HALF OF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE	CLEAN SANDS (LESS THAN 5% FINES)	SW	Well graded sands, gravelly sands, little or no fines.
			SP	Poorly graded sands or gravelly sands, little or no fines.
		SANDS WITH FINES.	SM	Silty sands, sand-silt mixtures, non-plastic fines.
			SC	Clayey sands, sand-clay mixtures, plastic fines.
FINE GRAINED SOILS — MORE THAN HALF OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS — LIQUID LIMIT IS LESS THAN 50%		ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity.
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.
			OL	Organic silts and organic silty clays of low plasticity.
	SILTS AND CLAYS — LIQUID LIMIT IS GREATER THAN 50%		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
			CH	Inorganic clays of high plasticity, fat clays.
			OH	Organic clays of medium to high plasticity, organic silts.
HIGHLY ORGANIC SOILS			PT	Peat and other highly organic soils.

GRAIN SIZES

U.S STANDARD SERIES SIEVE				CLEAR SQUARE SIEVE OPENINGS			
200	40	10	4	3/4"	3"	12"	
SILTS AND CLAYS	SAND			GRAVEL		COBBLES	BOULDERS
	FINE	MEDIUM	COARSE	FINE	COARSE		

RELATIVE DENSITY

SANDS AND GRAVELS	BLOWS/FT*
VERY LOOSE	0 - 4
LOOSE	4-10
MEDIUM DENSE	10 - 30
DENSE	30 - 50
VERY DENSE	OVER 50

CONSISTENCY

SILTS AND CLAYS	STRENGTH**	BLOWS/FT*
VERY SOFT	0 - 1/4	0 - 2
SOFT	1/4 - 1/2	2 - 4
FIRM	1/2 - 1	4 - 8
STIFF	1 - 2	8 - 16
VERY STIFF	2 - 4	16 - 32
HARD	OVER 4	OVER 32

*Number of blows of 140 pound hammer falling 30 inches to drive a 2 inch O.D. (1 3/8 inch I.D) split spoon (ASTM D-1586)

**Unconfined compressive strength in tons/ft^2 as determined by laboratory testing or approximated by the standard penetration test (ASTM D-1586), pocket penetrometer, torvane, or visual observation

HARO, KASUNICH & ASSOCIATES	KEY TO LOGS		FIGURE NO.

Haro, Kasunich & Associates, Inc.
Geotechnical & Environmental Engineering

3224 Seventeen Mile Drive

PROJECT NO. M10146

LOGGED BY VO | DATE DRILLED May 9, 2011 | BORING DIAMETER 3" | BORING NO. HA-1

Depth, ft.	Sample No. and type	Symbol	SOIL DESCRIPTION	Unified Soil Classification	Blows/foot 350 ft - lbs.	Qu - t.s.f. Penetrometer	Dry Density p.c.f.	Moisture % dry wt.	MISC. LAB RESULTS
0			8" fluff organics (duff)	SM					
			Brown silty SAND, organic loose						
			Increasing in density at 1.5, probed 1/2" with #4						
2	1-1 (B)		Damp at 2'				9.2		
	1-2 (B)		Moist , light brown clayey SAND (dg) (hard pan), firm 2.5'	SC			7.6		
4			Reddish, increasing color change and moisture content at 3.5 feet						
	1-3 (B)		Hard				10.9		
	1-4 (B)		Light brown medium clayey SAND, coarse grained hard, moist, very moist	SC			7.4		
6			Light greenish, clayey silty SAND, firm, damp	SC					
	1-5 (B)						7.7		
	1-6 (B)		Rust brown coarse d.g., water in bottom of hole at end of day	SP			6.5		
8			Hand auger terminated at 7.5 feet						
10									
12									
14									

HARO, KASUNICH AND ASSOCIATES, INC.

BY: sr | FIGURE NO. 3

Haro, Kasunich & Associates, Inc.
Geotechnical Engineers

3224 Seventeen Mile Drive

PROJECT NO. M10146

LOGGED BY TA | DATE DRILLED May 10, 2011 | BORING DIAMETER 3" | BORING NO. HA-2

Depth, ft.	Sample No. and type	Symbol	SOIL DESCRIPTION	Unified Soil Classification	Blows/foot 350 ft - lbs.	Qu - t.s.f. Penetrometer	Dry Density p.c.f.	Moisture % dry wt.	MISC. LAB RESULTS
0			Orangic fluff 8"	SM					
			Brown silty SAND	SM					
	2-1 (B)								
2	2-2 (M)		6" sample, light tan brown silty SAND firm	SM			122	14	Saturated Direct Shear c = 500 psf 0 = 46
			Reddish brown silty SAND firm Same as 2 -3	SM					
	2-3 (B)								
4	2-4 (B)		Hand auger terminated at 4 feet						
6									
8									
10									
12									
14									

HARO, KASUNICH AND ASSOCIATES, INC.

BY: sr | FIGURE NO. 4

Haro, Kasunich & Associates, Inc.
Geotechnical & Environmental Engineering

3224 Seventeen Mile Drive

PROJECT NO. M10146

LOGGED BY VO | DATE DRILLED May 10, 2011 | BORING DIAMETER 3" | BORING NO. HA-3

Depth, ft.	Sample No. and type	Symbol	SOIL DESCRIPTION	Unified Soil Classification	Blows/foot 350 ft - lbs.	Qu - t.s.f. Penetrometer	Dry Density p.c.f.	Moisture % dry wt.	MISC. LAB RESULTS
0			1" import d.g. compacted surfacing (FILL)	GP					
			Increase in density at 6", very dark brown, roots (buried top soil?) (dark brown silty SAND, organic loose, FILL)	SM					
2			Light brown clayey SAND d.g. hard, moist Firm, NATIVE	SC					
			Coarse clayey SAND d.g., very moist hard scrapping at 3.5, refusal at 3.5	SP					
4			Hang auger terminated at 3.5 feet						
6									
8									
10									
12									
14									

HARO, KASUNICH AND ASSOCIATES, INC.

BY: sr | FIGURE NO. 5

Haro, Kasunich & Associates, Inc.
Geotechnical Engineers

3224 Seventeen Mile Drive

PROJECT NO. M10146

LOGGED BY VO | DATE DRILLED May 9, 2011 | BORING DIAMETER 3" | BORING NO. HA-4

Depth, ft.	Sample No. and type	Symbol	SOIL DESCRIPTION	Unified Soil Classification	Blows/foot 350 ft - lbs.	Qu - t.s.f. Penetrometer	Dry Density p.c.f.	Moisture % dry wt.	MISC. LAB RESULTS
0			4" brown organic duff very loose	SM					
2			Brown silty SAND, loose, silty SAND medium dense organic	SM					
	4-1 (B)		Increase moist, density, rocky - broke through	SC				5.7	
			Very moist, light brown clayey SAND corase (d.g.) refusal at 3 feet						
4									
6									
8									
10									
12									
14									

HARO, KASUNICH AND ASSOCIATES, INC.

BY: sr | FIGURE NO. 6

Haro, Kasunich & Associates, Inc.
Geotechnical and Environmental Engineers

3224 Seventeen Mile Drive

PROJECT NO. M10146

LOGGED BY TA | DATE DRILLED May 10, 2011 | BORING DIAMETER 3" | BORING NO. HA-5

Depth, ft.	Sample No. and type	Symbol	SOIL DESCRIPTION	Unified Soil Classification	Blows/foot 350 ft - lbs.	Qu - t.s.f. Penetrometer	Dry Density p.c.f.	Moisture % dry wt.	MISC. LAB RESULTS
0			Organics	SM					
	5-1 (B)		Tan brown sandy silty clay moist	SC					
2			Refusal at 2 feet						
4									
6									
8									
10									
12									
14									

HARO, KASUNICH AND ASSOCIATES, INC.

BY: sr | FIGURE NO. 7

Haro, Kasunich & Associates, Inc.
Geotechnical and Materials Engineers

3224 Seventeen Mile Drive

PROJECT NO. M10146

LOGGED BY TA | DATE DRILLED May 10, 2011 | BORING DIAMETER 3" | BORING NO. HA-6

Depth, ft.	Sample No. and type	Symbol	SOIL DESCRIPTION	Unified Soil Classification	Blows/foot 350 ft - lbs.	Qu - t.s.f. Penetrometer	Dry Density p.c.f.	Moisture % dry wt.	MISC. LAB RESULTS
0			12" organics	SM					
2	6-1 (M)		Light brown silty SAND clay	SM			101	21.5	Saturated Direct Shear C = 850 psf 0 = 27
	6-2 (B)		Mottled orange brown sandy clay	SC					
4	6-3 (B)		Mottled orange brown d.g. weathered firm	SP					
			Refusal at 4.5 feet						
6									
8									
10									
12									
14									

HARO, KASUNICH AND ASSOCIATES, INC.

BY: sr | FIGURE NO. 8

Haro, Kasunich & Associates, Inc.
Geotechnical Engineers

3224 Seventeen Mile Drive

PROJECT NO. M10146

LOGGED BY VO | DATE DRILLED May 10, 2011 | BORING DIAMETER 3" | BORING NO. HA-7

Depth, ft.	Sample No. and type	Symbol	SOIL DESCRIPTION	Unified Soil Classification	Blows/foot 350 ft - lbs.	Qu - t.s.f. Penetrometer	Dry Density p.c.f.	Moisture % dry wt.	MISC. LAB RESULTS
0			Very loose FILL, red brown SAND	SP					
			Buried topsoil NATIVe dark brown organics silty SAND, deep firm	SM					
			Increasing in density and clay content, dark brown clay SAND, firm some organics	SC					
4			Grades to a SAND clay, firm, moist dark grey Grades to a blueish color increasing SAND content	SC					
6			Blue SAND with clay binder hard sticky, moist hand auger terminated at 5.5 feet	SC					
8									
10									
12									
14									

SuperLog CivilTech Software, USA www.civiltech.com File: C:\Superlog4\HKALOGS\M10146 3224 Seventeen Mile Drive.log Date: 5/18/2011

HARO, KASUNICH AND ASSOCIATES, INC.

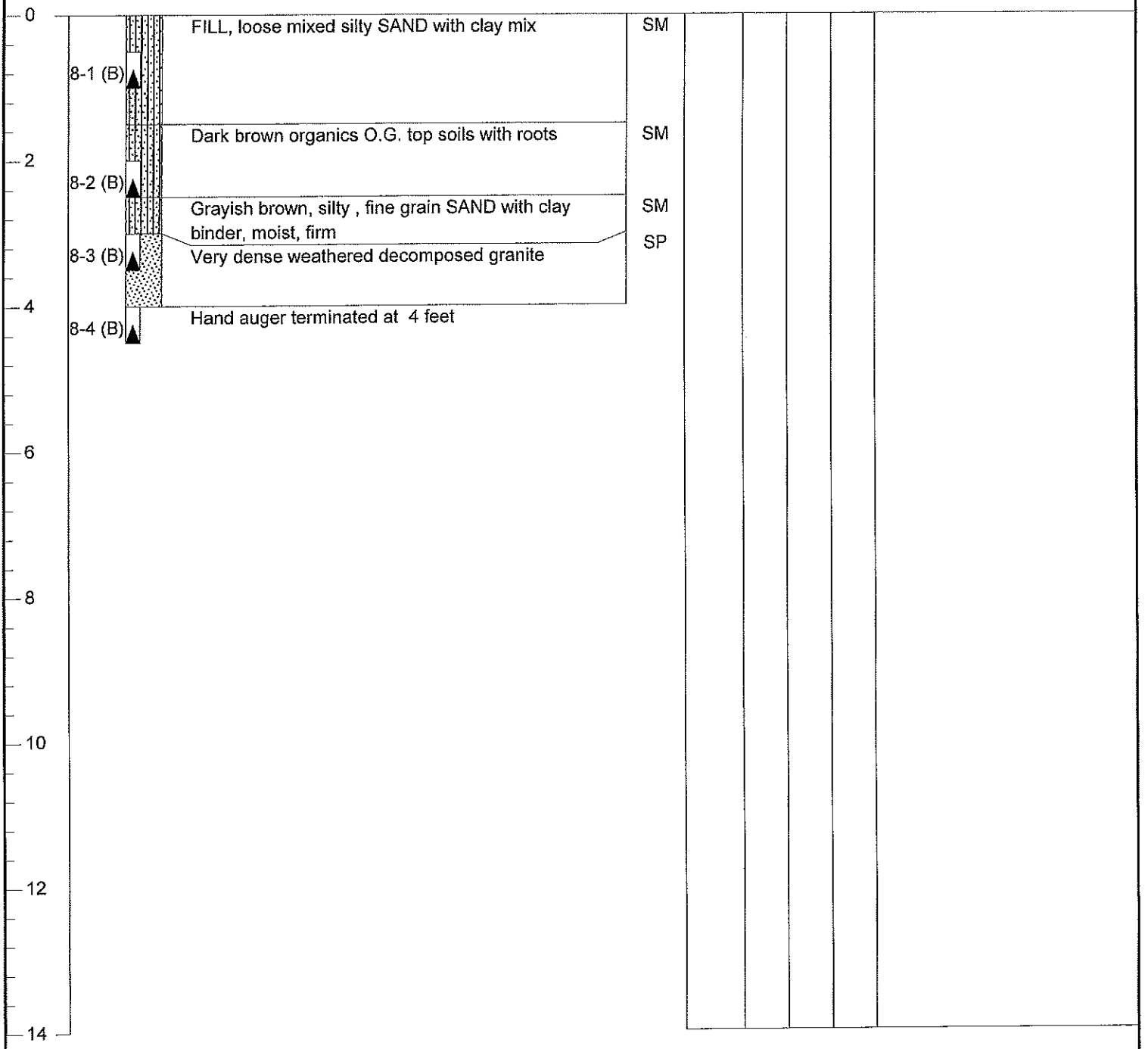
BY: sr | FIGURE NO. 9

Haro, Kasunich & Associates, Inc.
Geotechnical Engineers

3224 Seventeen Mile Drive

PROJECT NO. M10146

LOGGED BY TA | DATE DRILLED May 13, 2011 | BORING DIAMETER 3" | BORING NO. H-8



HARO, KASUNICH AND ASSOCIATES, INC.

BY: sr | FIGURE NO. 10

Haro, Kasunich & Associates, Inc.
Geotechnical Engineers

3224 Seventeen Mile Drive

PROJECT NO. M10146

LOGGED BY TA | DATE DRILLED May 13, 2011 | BORING DIAMETER 3" | BORING NO. H-9

Depth, ft.	Sample No. and type	Symbol	SOIL DESCRIPTION	Unified Soil Classification	Blows/foot 350 ft - lbs.	Qu - t.s.f. Penetrometer	Dry Density p.c.f.	Moisture % dry wt.	MISC. LAB RESULTS
0	9-1 (B)		Dark brown organics silty SANDS topsoils soft	SM					
2	9-2 (B)		Tanish brown silty SANDS firm	SM					
	9-3 (B)		Tan brown decomposed granite very dense	SP					
			Hand auger terminated at 3 feet						
4									
6									
8									
10									
12									
14									

HARO, KASUNICH AND ASSOCIATES, INC.

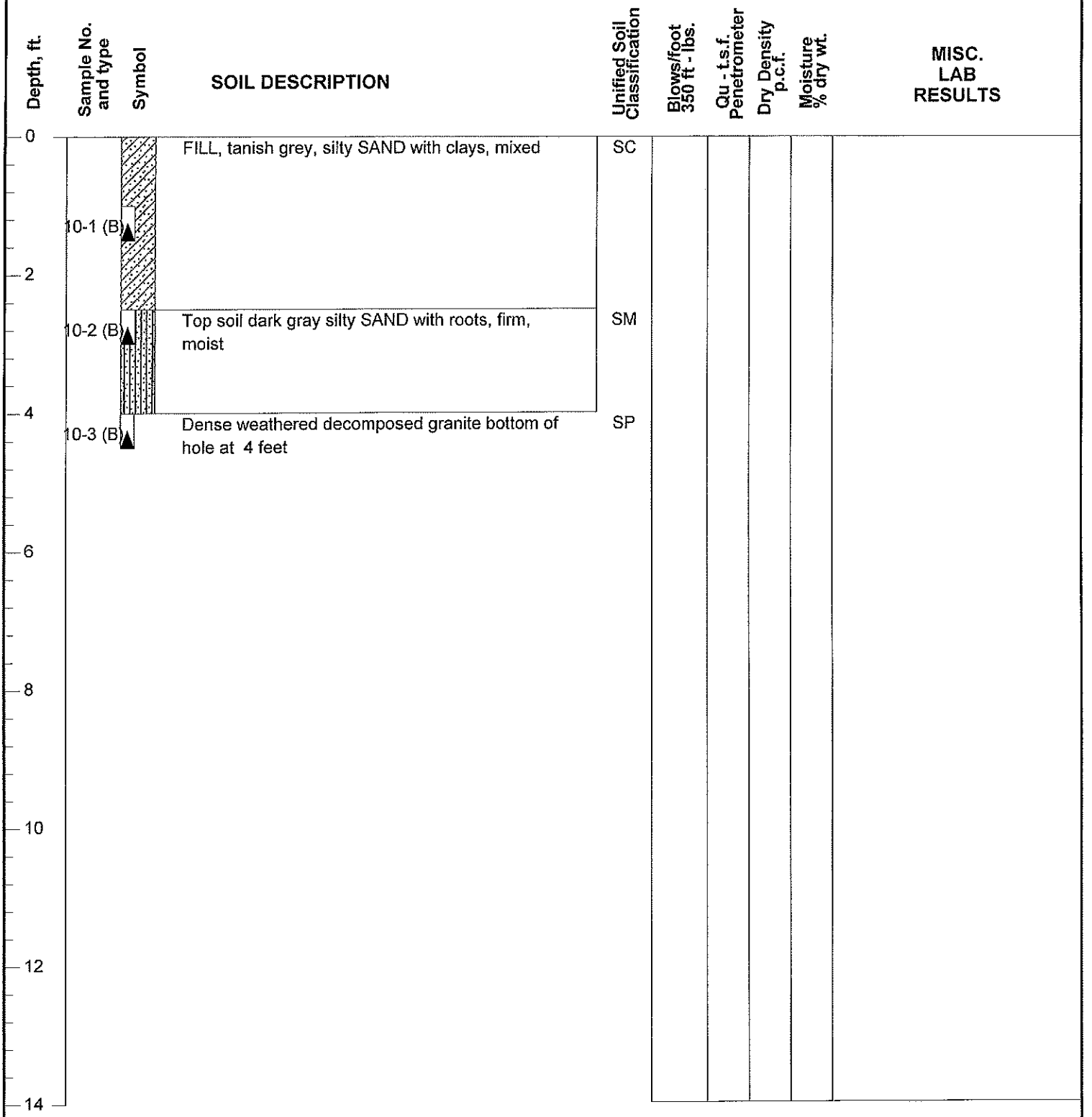
BY: sr | FIGURE NO. 11

Haro, Kasunich & Associates, Inc.
Geotechnical Engineers

3224 Seventeen Mile Drive

PROJECT NO. M10146

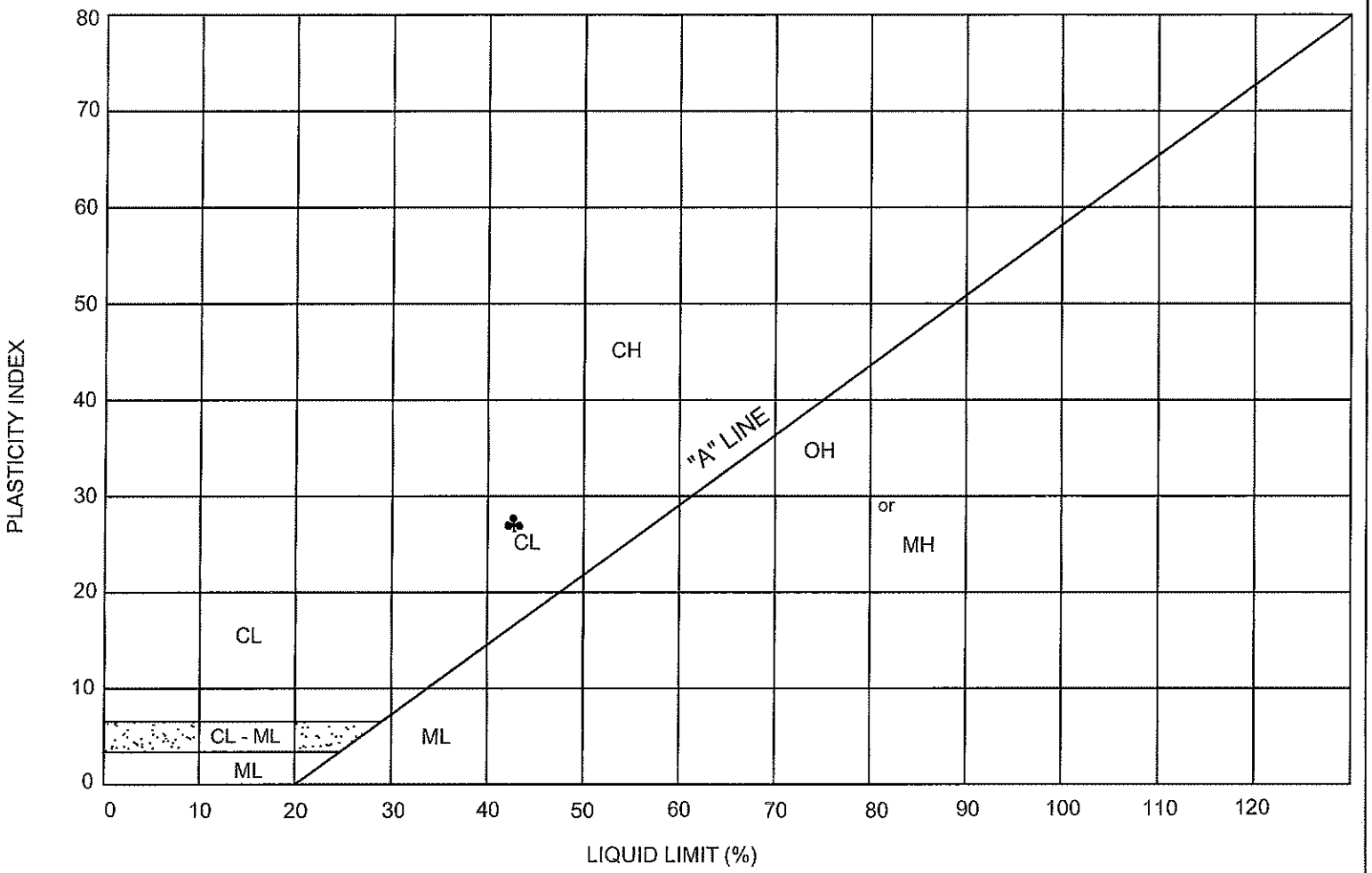
LOGGED BY TA | DATE DRILLED May 13, 2011 | BORING DIAMETER 3" | BORING NO. H-10



HARO, KASUNICH AND ASSOCIATES, INC.

BY: sr | FIGURE NO. 12

PLASTICITY CHART



PLASTICITY DATA

Key Symbol	Sample Number	Depth (feet)	Natural Water Content W(%)	Plastic Limit (%)	Liquid Limit (%)	Plasticity Index	Unified Soil Classification Symbol
♣	7-2-A	4.0	18.9	15.9	42.7	27	CL

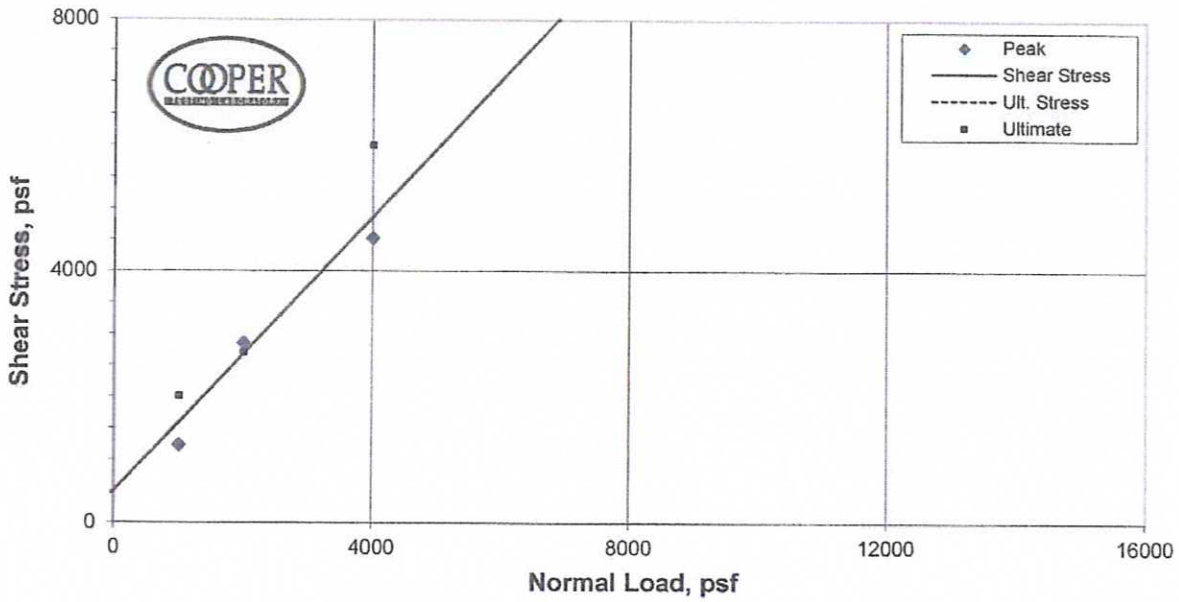
ATTERBERG LIMITS TEST RESULTS
3224 17 Mile Dive, Pebble Beach
Monterey County, California

SCALE:	
DRAWN BY: JD	
DATE: May 2011	HARO, KASUNICH & ASSOCIATES, INC.
REVISED:	GEOTECHNICAL AND COASTAL ENGINEERS
JOB NO. M10146	116 E. LAKE AVENUE, WATSONVILLE, CA 95076 (831) 722-1475

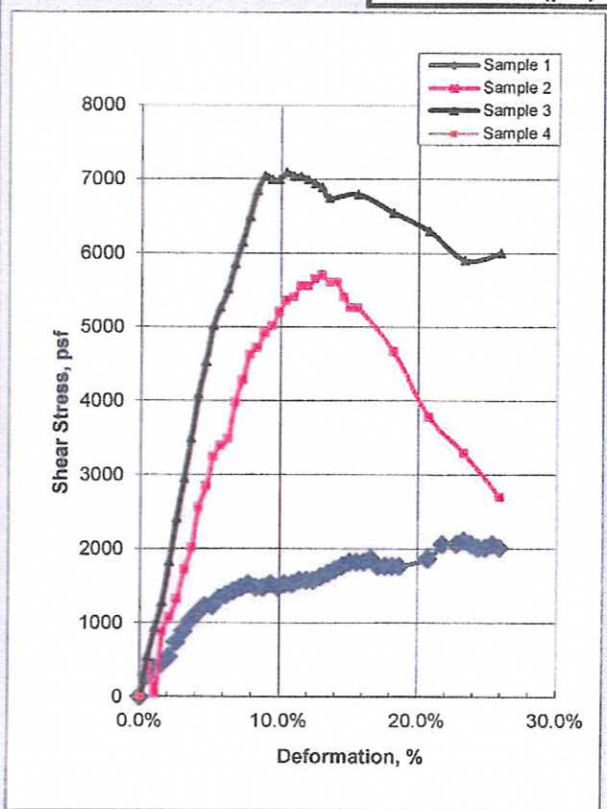
FIGURE NO. SHEET NO. 43

Direct Shear

(Consolidated-Undrained)



P. Phi (degrees)	46	Ult. Phi (degrees)	
P. Cohesion (psf)	500	Ult. Cohesion (psf)	



	Sample Data: Initial			
	1	2	3	4
Moisture %	7.2%	6.5%	6.9%	
Dry Dens., pcf	108.3	108.1	111.4	
Void Ratio	0.557	0.559	0.513	
Saturation %	34.7	31.3	36.1	
Diameter	1.93	1.93	1.93	
Height	1.00	1.00	1.00	
	Sample Data: At Test			
Moisture %	14.0%	14.4%	13.1%	
Dry Dens., pcf	122.4	121.4	124.7	
Void Ratio	0.378	0.389	0.353	
Saturation %	100.0	100.0	100.0	
Diameter	1.93	1.93	1.93	
Height	0.885	0.891	0.893	
Normal Stress, psf	1000	2000	4000	
Shear Stress, psf	1231	2855	4528	
Strengths picked at	5.0%	5.0%	5.0%	
Ult. Stress, psf	2018	2707	6005	
Strain Rate, %/min.	1.0	1.0	1.0	

CTL #	032-390
Client:	Haro, Kasunich & Associates
Project	17 Mile Dr. Lundquist - M10146
Tested By:	MD
Reduced By:	RU
Date:	5/18/2011

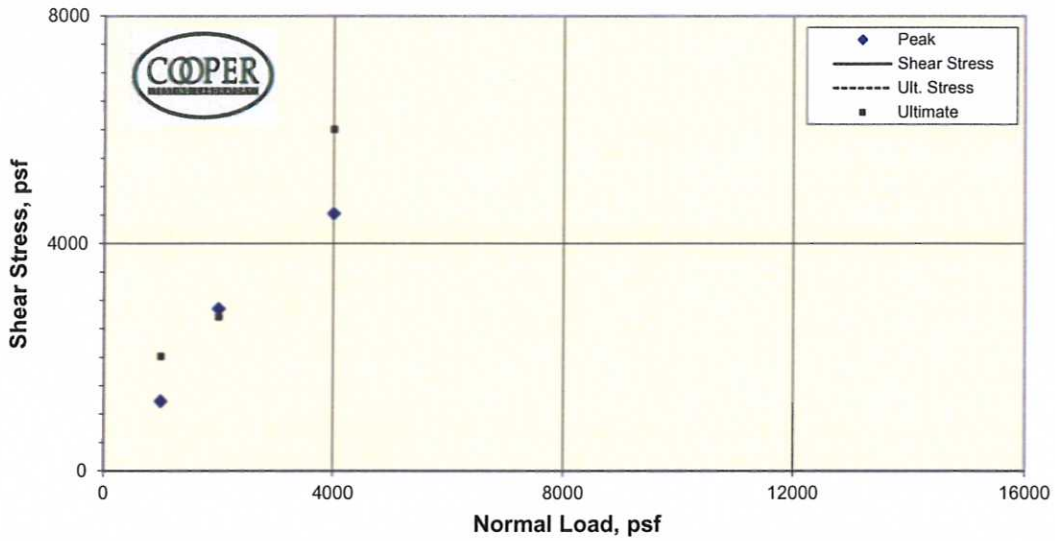
Specimen #	Boring:	Sample:	Depth, ft:	Visual Soil Classification
1		2-2		Olive Brown Silty SAND w/ Gravel
2		2-2		Olive Brown Silty SAND w/ Gravel
3		2-2		Olive Brown Silty SAND w/ Gravel

Remarks:

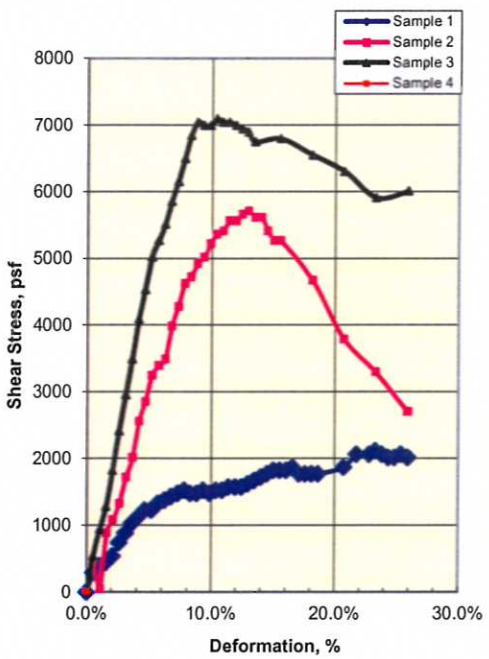
DS-CU A fully undrained condition may not be attained in this test.

Direct Shear

(Consolidated-Undrained)



P. Phi (degrees)		Ult. Phi (degrees)	
P. Cohesion (psf)		Ult. Cohesion (psf)	

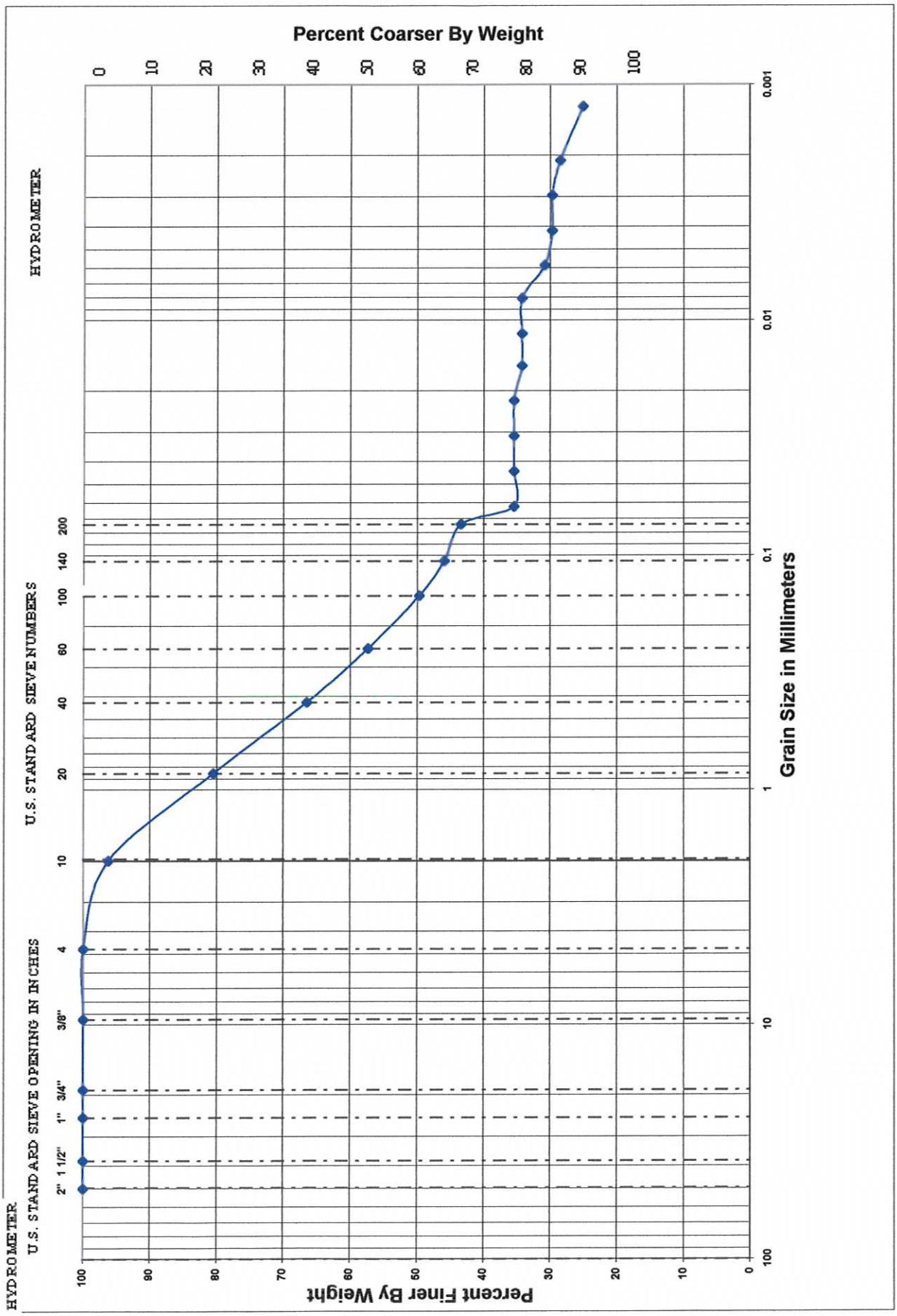


	Sample Data: Initial			
	1	2	3	4
Moisture %	7.2%	6.5%	6.9%	
Dry Dens., pcf	108.3	108.1	111.4	
Void Ratio	0.557	0.559	0.513	
Saturation %	34.7	31.3	36.1	
Diameter	1.93	1.93	1.93	
Height	1.00	1.00	1.00	
	Sample Data: At Test			
Moisture %	14.0%	14.4%	13.1%	
Dry Dens., pcf	122.4	121.4	124.7	
Void Ratio	0.378	0.389	0.353	
Saturation %	100.0	100.0	100.0	
Diameter	1.93	1.93	1.93	
Height	0.885	0.891	0.893	
Normal Stress, psf	1000	2000	4000	
Shear Stress, psf	1231	2855	4528	
Strengths picked at	5.0%	5.0%	5.0%	
Ult. Stress, psf	2018	2707	6005	
Strain Rate, %/min.	1.0	1.0	1.0	

CTL #	032-390
Client:	Haro, Kasunich & Associates
Project	17 Mile Dr. Lundquist - M10146
Tested By:	MD
Reduced By:	RU
Date:	5/18/2011

Specimen #	Boring:	Sample:	Depth, ft:	Visual Soil Classification
1		2-2		Olive Brown Silty SAND w/ Gravel
2		2-2		Olive Brown Silty SAND w/ Gravel
3		2-2		Olive Brown Silty SAND w/ Gravel
Remarks:				
	DS-CU A fully undrained condition may not be attained in this test.			

Graph Chart 1



APPENDIX B

CEQA Checklist

Appendix Environmental
Checklist Form
Selected Checklist Items as they Pertain to Geotechnical Issues

VI. GEOLOGY AND SOILS -- Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	❒	❒	❒	☒
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	❒	❒	❒	☒
ii) Strong seismic ground shaking?	❒	☒	❒	❒
iii) Seismic-related ground failure, including liquefaction?	❒	❒	❒	☒
iv) Landslides?	❒	❒	❒	☒
b) Result in substantial soil erosion or the loss of topsoil?	❒	☒	❒	❒
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	❒	❒	❒	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to	❒	☒	❒	❒

life or property?				
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
VIII. HYDROLOGY AND WATER QUALITY -- Would the project:				
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☐	☒
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? *n/a not a housing project*	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒

j) Inundation by seiche, tsunami, or mudflow? *Tsunami unlikely to reach elevation of garage*	☐	☐	☒	☐
X. MINERAL RESOURCES -- Would the project:	☐	☐	☐	☐
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

ATTACHMENT 5

A B C D E F G

GREEN LINE = DEL MONTE FOREST LUAC APPROVED HEIGHT
RED LINE = COUNTY -REQUESTED CHANGES

Lundquist

3224 SEVENTEEN MILE DRIVE PEBBLE BEACH, CALIFORNIA

JUNE 19, 2012

Carver + Schicketanz
ARCHITECTS · PLANNERS · INTERIOR DESIGNERS

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