

MONTEREY COUNTY PLANNING COMMISSION

Meeting: October 9, 2013 Time: 9:00 A.M		Agenda Item No. 1
Project Description: Combined Development Permit as an after-the-fact permit consisting of: 1) Coastal Development Permit allowing bluff stabilization/erosion control to prevent structural damage from tidal erosion of terrace deposits and overlying soils. The artificial rock fascia is designed to match the existing shoreline contour, texture and color; 2) a Coastal Development Permit to allow development within 100 feet of environmentally sensitive habitat; 3) a Coastal Development Permit to allow development on slopes of 30% or greater; and 4) a Coastal Development Permit for development within 750 feet of a known archaeological resource.		
Project Location: 3158 17-Mile Drive in the Del Monte Forest area of Pebble Beach		APN: 008-491-013-000
Planning File Number: PLN100670		Owner: Peter Read Agent: Bud Carney
Plan Area: Del Monte Forest Land Use Plan (Coastal Zone)		Flagged and staked: No
Zoning Designation: "LDR/2-D (CZ) [Low Density Residential, 2 acres per unit Design Control District (Coastal Zone)]"		
CEQA Action: Amended Negative Declaration		
Department: RMA - Planning		

RECOMMENDATION:

Staff recommends that the Planning Commission adopt a resolution (**Exhibit C**) to:

- 1) Adopt an Amended Negative Declaration (**Exhibit F**) based on the whole of the record that there is no substantial evidence that the project will have a significant effect on the environment; and
- 2) Approve the Combined Development Permit (PLN100671), based on the findings and evidence and subject to the conditions of approval (**Exhibit C**).

PROJECT OVERVIEW:

The property is zoned LDR/2-D (CZ) (Low Density Residential, 2 acres per unit, Design Control (Coastal Zone)). Cypress Point parking lot and single family residential homes are located north of the site. The property owner is requesting after-the-fact approval for bluff stabilization/erosion control improvements (seawall) constructed without permits. Engineering reports indicate this structure was needed to protect an existing residence from coastal erosion damage. This structure was designed and installed to prevent wave attack from episodic events that could further erode the terrace deposits and overlying soils and stabilize the unconsolidated and surficial materials atop the bluff. An artificial rock fascia is used and consists of an approximately 12 inch thick layer of shotcrete designed to match the natural contour of the shoreline and the existing granite bedrock in texture and color.

Staff determined that permits are required for development located within 100 feet of environmentally sensitive habitat, on slopes of 30% or greater, and within 750 feet of a known archaeological resource. Because of potential environmental impacts to restore the site, County staff determined that permits could be processed as an after-the-fact permit if the evidence determined that the residence is immediately threatened by further erosion. Staff has evaluated this project in the context of evidence supporting approval had the applicant requested permission before performing the work. If the project is not approved, a restoration plan would be required.

Staff prepared an Initial Study to analyze the rock fascia including potential impacts on shoreline aesthetics, biological resources, cultural resources and geological and soil conditions. Impacts were evaluated as if the structure was not yet built. A Negative Declaration (**Exhibit F**) was prepared for the project and was distributed for public review from May 9, 2013 to June 10, 2013. Comments on the Negative Declaration were received from the California Coastal Commission (see **Exhibit G**), and responses to these comments were submitted by the applicant (see **Exhibit H**). In response to the comments from the California Coastal Commission, staff made minor revisions to the Initial Study and an Amended Negative Declaration was prepared (**Exhibit F**). The changes did not alter any of the conclusions or identify any new significant effects and recirculation was not triggered (CEQA Guidelines Section 15073.5). The California Coastal Commission submitted a letter (**Exhibit I**) dated July 26, 2013 with comments on additional information that was submitted in reference to the Negative Declaration. The applicant submitted a letter (**Exhibit J**) dated August 9, 2013 in response to California Coastal Commission's comments on the additional information. Additional correspondence from the applicant's geologist and the California Coastal Commission is also attached (**Exhibit K**¹).

A more detailed discussion is attached in **Exhibit B**.

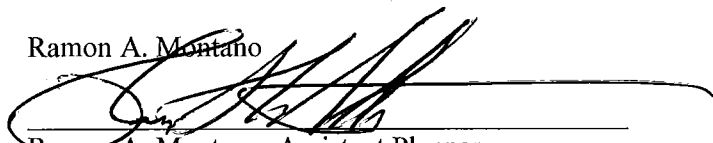
OTHER AGENCY INVOLVEMENT: The following agencies and departments reviewed this project:

- √ RMA - Public Works Department
Environmental Health Bureau
Water Resources Agency
Pebble Beach Community Services District
- √ California Coastal Commission
California Department of Fish and Wildlife, Region 4
California Department of Fish and Wildlife, Marine Region

Agencies that submitted comments are noted with a check mark ("√"). On September 15, 2011, the Del Monte Forest Land Use Advisory Committee recommended (6-0 vote) to approve the project as proposed.

Note: The decision on this project is appealable to the Board of Supervisors and the Coastal Commission.

Ramon A. Montano



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September 26, 2013

cc: Front Counter Copy; Planning Commission; Pebble Beach Community Service Services District; Public Works Department; Environmental Health Bureau; Water Resources Agency; Mike Watson, California

Coastal Commission; Katie Butler, California Coastal Commission; California Department of Fish and Wildlife; Wanda Hickman, Planning Services Manager; Bob Schubert, Senior Planner; Ramon A. Montano, Assistant Planner, Carol Allen, Senior Secretary; Peter Read, Owner; John Bridges, Agent; Gary Griggs, The Open Monterey Project; LandWatch; Planning File PLN100670.

Attachments:	Exhibit A	Project Data Sheet
	Exhibit B	Project Discussion
	Exhibit C	Draft Resolution
	Exhibit D	Vicinity Map
	Exhibit E	Advisory Committee Minutes (LUAC)
	Exhibit F	Amended Negative Declaration
	Exhibit G	Letter from California Coastal Commission dated June 6, 2013 with Comments on Negative Declaration
	Exhibit H	Applicant's Letter dated June 20, 2013 with Responses to Comments from California Coastal Commission on Negative Declaration
	Exhibit I	Letter from California Coastal Commission dated July 26, 2013 with Comments on Additional Information Submitted in Reference to the Negative Declaration
	Exhibit J	Applicant's Letter dated August 9, 2013 with Responses to California Coastal Commission's Comments on Additional Information
	Exhibit K	Additional Correspondence from Applicant's Geologist and California Coastal Commission
	Exhibit L	Geologic Report Focused on Wave Impact Hazards, Coastal Bluff Erosion and Shoreline Protection on the Read Property dated August 2011 prepared by Gary Griggs
	Exhibit M	As-Built Plans

This report was reviewed by Wanda Hickman, Planning Services Manager.

EXHIBIT A

Project Information for PLN100670

Application Name: Read James Peter
Location: 3158 17 Mile Dr, Pebble Beach
Applicable Plan: Del Monte Forest LUP
Primary APN: 008-491-013-000
Advisory Committee: Del Monte Forest Advisory Committee
Coastal Zone: Yes
Permit Type: Combined Development Permit
Final Action Deadline (884): 8/14/2012
Environmental Status: Negative Declaration
Zoning: LDR/2-D(CZ)
Land Use Designation: Residential - Density as indicated

Project Site Data:

Lot Size: 2.36
Existing Structures (sf): 7893
Proposed Structures (sf): 0
Total Sq. Ft.: 0
Coverage Allowed: 15%
Coverage Proposed: N/A
Height Allowed: 27
Height Proposed: N/A
FAR Allowed: 15%
FAR Proposed: N/A

Special Setbacks on Parcel:

Resource Zones and Reports:

Seismic Hazard Zone: II|UNDETERMINED
Soils Report #: SOI24.06.13
Erosion Hazard Zone: Moderate|Low
Biological Report #: VEG26.08.19, LIB070607
Fire Hazard Zone: High
Forest Management Rpt. #: N/A
Flood Hazard Zone: V|X (unshaded)
Geologic Report #: 14.25.21, LIB050169
Archaeological Sensitivity: high
Archaeological Report #: 04.05.140, 04.11.006, 04.
Visual Sensitivity: Sensitive|Highly Sensitive
Traffic Report #: N/A

Other Information:

Water Source: N/R
Grading (cubic yds.): 0
Water Purveyor: Pebble Beach CSD
Sewage Disposal (method): N/R
Fire District: Pebble Beach CSD
Sewer District Name: Pebble Beach CSD
Tree Removal: 0

EXHIBIT B DISCUSSION

Background

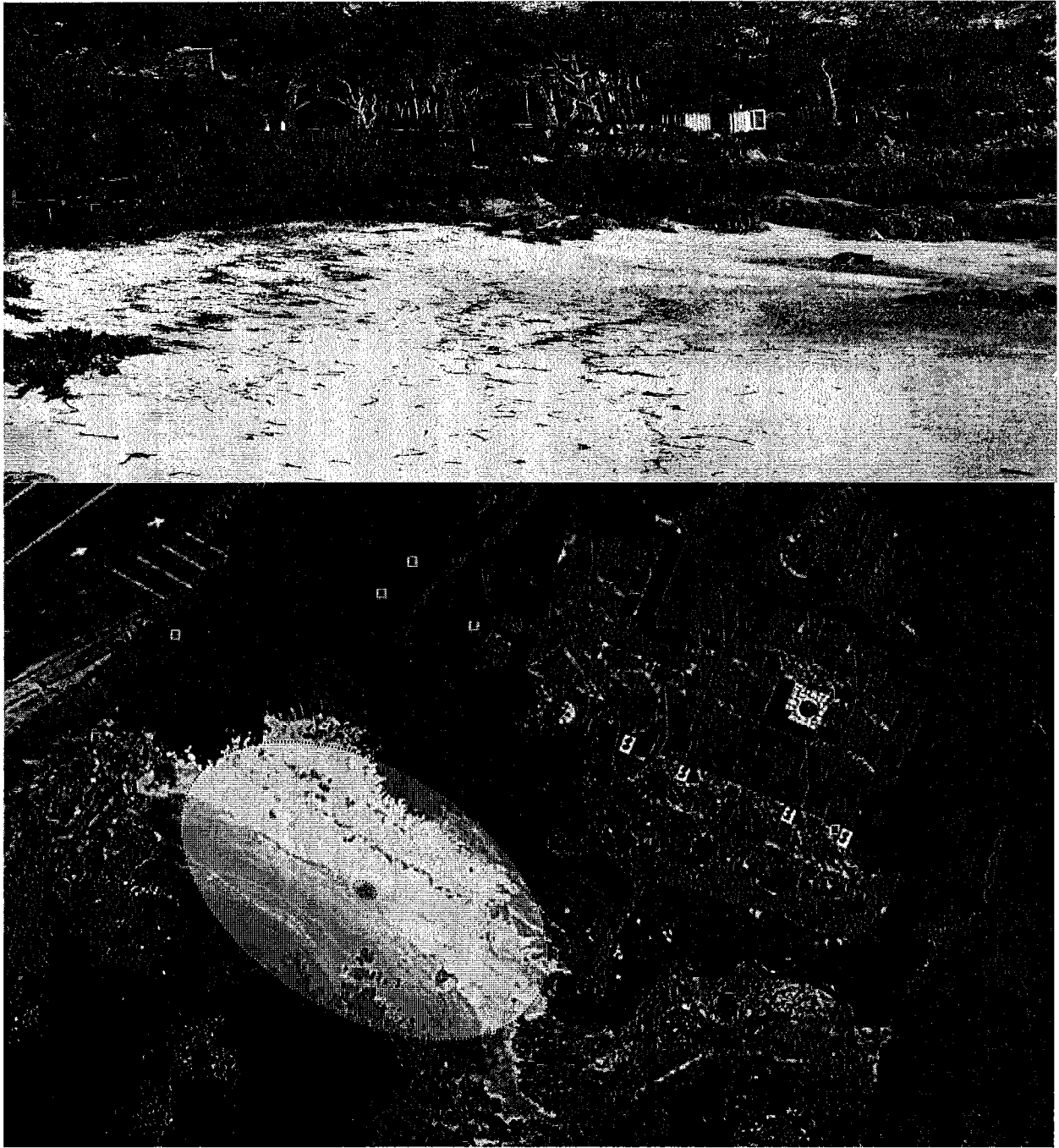
The Read residence at 3158 Seventeen Mile Drive was approved for construction in July 1993 (PC93058). A permit for a minor seawall to protect a Landmark Monterey Cypress tree on the Read property in the area adjacent to the Cypress Point parking lot (PLN060059) was approved by the Planning Commission in December 2007. An appeal of the permit for the seawall was subsequently filed by the Coastal Commission and is still pending.

A Complaint filed by the Coastal Commission on October 2, 2010 notified the property owner and the County that, based on a site visit by the Commission staff, unpermitted development consisting of a Bluff Stabilization/Erosion Control Fascia (seawall) had been constructed and that the property was in violation of the Coastal Act and the Monterey County Local Coastal Plan. The as-built artificial rock seawall fronts the bluff adjacent to the Read home. The structure was constructed in this location because the southerly portions of the lot are subjected to the heaviest wave action. The applicant applied to the County for an after-the-fact permit in December 2010.

Project/Site Description

The application consists of a Combined Development Permit to allow after-the-fact bluff stabilization/erosion control along the uppermost portion of a coastal bluff adjacent to the Read home. A 12-inch thick layer of shotcrete uses coloring and a configuration to resemble the original bluff. The fascia is designed to both stabilize the unconsolidated and surficial materials at the top of the bluff (terrace deposits and overlying soils) and prevent wave erosion and overtopping by having a slight recurve (backward curving area) at the top. The structure is founded on a granitic bench located at the top of the bluff, approximately eight feet above the ocean. The area between the structure and the ocean consists of granitic bedrock.

The as-built structure is located approximately 43 feet southeasterly of the Otter Cove Beach, where Harbor Seal pupping activities occur. The pupping area is separated from the project area by a small peninsula of land where the property owner has an existing walkway to an overlook of the small bay. Pupping activities don't appear to occur on the cove at the project site due to wave action and inundation at high tide.



Aerial showing the Read residence in relation to Otter Cove Beach and the public parking lot

The Coastal Commission has suggested that portions of the project may have been located below the mean high tide line (MHTL) and would therefore be under the original jurisdiction of the Commission. The extent of the Commission's permit jurisdiction is not limited to a final development footprint, but also includes staging areas, scaffolding erection and all other project-related activities that meet the Coastal Act definition of development. The applicant has submitted documentation indicating that no work or scaffolding was placed at or below the MHTL. It's staff's position that the project is not subject to the Coastal Commission's original jurisdiction but is subject to their appeal jurisdiction.

Issues

Evaluation of Erosion Threat - Section 20.147.060(B)(7) of Part 5 of the Coastal Implementation Plan (IP) and Policy 44 in the Del Monte Forest Land Use Plan only permit shoreline protection when it is required to protect existing structures in danger from erosion, when designed to mitigate for adverse impacts on local shoreline sand supply, and when no other less-environmentally damaging alternatives are feasible. This IP also requires that existing structures be “*substantial structures*,” such as a primary residence, a major road, or a significant facility or access way used by the public. The existing single family dwelling is a substantial structure in the project area that would be protected by the project.

Section 20.147.060.E.2 of the CIP establishes the approval standard for shoreline protection as being circumstances where such protection is determined to be “*necessary by a qualified civil engineer versed in shoreline protection to protect existing development.*” A Geologic Report Focused on Wave Impact Hazards, Coastal Bluff Erosion, and Shoreline Protection on the Read Property dated August 2011 was prepared by Gary Griggs, Consulting Coastal Geologist (**Exhibit L**). The report addresses the process of coastal erosion/bluff retreat, documents the rates and uncertainties involved, summarizes previous coastal erosion investigations and rates, and discusses the influences of future sea-level rise, changing wave and climate and historic extreme events, as well as existing and future risks to the Read home.

At its closest point, the Read home is approximately 45 feet from the bluff edge. Bluff erosion rate based on historic areal photographs average about 0.5 ft/yr. The first erosion study of the site was conducted in 1987. An erosion study of the site in 2004 concluded that between five and eight feet of erosion took place at the site during this 17 year interval.

According to the Geologic Report (**Exhibit L**), bluff erosion is an episodic process and applying an average annual erosion rate does not address the episodic nature of the erosion process or the extreme events. Extreme events can have impacts and produce erosion that is far greater than the average annual rate. This was documented in the Geologic Report where high tides and waves overtopped the bluff on January 4-5, 2008, stripping off the vegetation and overturning a heavy bench and statue that was set back 20 feet from the bluff edge, pushing it landward several feet. Some of the bluff also eroded and those soils were washed inland to the edge of the Read home. In addition, the applicant has indicated that runup reached the house in 1998 when it was still under construction (see **Exhibit K**).

There is considerable discussion in the Geologic Report regarding the increasing risk posed by a continuing rise in sea level, combined with and considering that extreme events have already brought ocean water and eroded bluff material to the front of the Read home. The Geologic Report concludes that there is a clear risk from extreme events that will only increase in the future given the observed trends in sea level rise. This hazard is addressed in the *State of California Sea-Level Rise Guidance Document* (CO-CAT, March 2013) which states (page 4):

“Consider storms and other extreme events. Coastal ecosystems, development, and public access are most at risk from storm events, including the confluence of large waves, storm surges, and high astronomical tides during a strong El Nino.... Future sea level will be a starting point for project design considerations. Where feasible, consideration should be given to scenarios that combine extreme oceanographic conditions on top of the highest water levels projected to result from SLR over the expected life of a project.”

When the Read house was approved in 1993 it was set back from the bluff based upon the applicable minimum 50 year life criteria (as required by a previous LUP policy). Location of the house further back on the property was not approved due to the location of protected sensitive (indigenous) Monterey Cypress habitat. The applicant has submitted a letter from an architect indicating that the Read home was constructed to have an economic life of over 200 years based on the use of concrete and granite stone with anti-corrosive steel reinforcing. The exterior of the house has a complete granite covering and a slate roof. In addition to the Monterey Cypress forest constraint, the house is situated on the lowest section of coastal bluff along 17 Mile Drive and has a history of serious wave attack and consequent bluff erosion.

The Coastal Commission submitted a letter commenting on the Initial Study which states that the Commission's long practice has been to evaluate the immediacy of any threat in order to make a determination as to whether an existing structure is "*in danger*" and has generally interpreted "*in danger*" to mean that an existing structure would be unsafe to occupy within the next two or three storm season cycles (generally, the next few years) if nothing were to be done (see **Exhibit G**). The Coastal Commission's letter commenting on the Negative Declaration concluded that, based on an estimated rate of erosion of 0.25 feet/year, the Read home is not "*in danger*" from erosion as defined by the LCP or Coastal Act. It should be noted that the erosion rate of 0.25 feet/year that the Coastal Commission based this conclusion on was incorrect (the correct rate is 0.50 feet/year which has subsequently been corrected in the Initial Study, **Exhibit F**). Staff discussed this with the Coastal Commission staff and provided additional information, including the Geologic Report.

The Coastal Commission submitted a letter (**Exhibit I**) dated July 26, 2013 with comments on the additional information that was provided following their initial comments on the Negative Declaration. Based on an examination of Figure 5 in the Geologic Report (**Exhibit K**), the Coastal Commission letter states that "*it appears that the Read home, guest house and garage would be safe for another 50 years and therefore these structures are not in imminent danger from erosion.*" The letter further states that the closest development to the bluff edge includes the stone walk and planters, which are located within 7-10 feet of the bluff edge. However, these elements do not constitute "*substantial structures*", as defined in IP Section 20.147.060(B)(7), and thus do not warrant protection under the LCP.

The applicant geologist submitted additional information in response to the comments from the Coastal Commission (**Exhibits H, J and K**). Coastal Commission staff reviewed the additional information and submitted an e-mail message (**Exhibit K**) dated September 11, 2013 stating that they don't see how the project is approvable under LUP Policy 44 because the information does not indicate an erosion hazard to the primary structure on the site now or in the near-term future. They indicated that waves have come close to the house twice in last 15 years (1998 and 2008), but have not directly impacted the house. The Coastal Commission staff concludes that some sort of flood protection barrier closer to the home would be more effective at reducing any flooding risk.

If the Planning Commission agrees with the Coastal Commission assessment of the project, it could determine that there are no existing substantial structures in close proximity to the bluff edge that would be considered to be "*in danger from erosion*" as required by the LCP for development that alters shoreline processes. In that case, the Planning Commission would adopt a Resolution of Intent to deny the application and direct staff to return with a resolution with

appropriate findings and evidence. If the Combined Development Permit is denied, the applicant should be required to submit a restoration plan, remove the facia and restore the area to a natural landform.

Potential Reduction of Sand Supply. As required by Section 20.147.060(B)(7) of Part 5 of the Coastal Implementation Plan (IP), any approvable project is required to mitigate any adverse impacts to local shoreline sand supply. There is a 25-foot wide pocket beach fronting the section of eroding bluff proposed for protection in front of the Read home. Granite outcrops form the rear and both sides of the cove as well as most of the intertidal zone. This beach consists of a mixture of granite boulders, cobbles, gravel, and very coarse-grained sand. Most of the sand moves offshore in the winter months, and sediments in the small cove are dominated by boulders, cobbles, and gravel.

The determination of the average amount of beach compatible material provided by erosion of the bluff-top terrace deposits and soils proposed for protection is as follows:

80 feet of bluff frontage x 6 feet (average height of bluff top proposed for protection) x 0.50 ft/yr (average erosion rate) x 26% (percent of beach compatible sand) = 2.3 cubic yards/year of beach compatible sand.

According to the Geologic Report, the granitic cobbles and boulders, which form most of the material in the small cove below the site do not appear to migrate but remain in place for years. Finer-grained material coming from bluff erosion does not remain on this beach due to the high wave energy so the small amount of sand contributed by bluff failure does not significantly contribute to this small rocky cove. The Initial Study concludes that the potential reduction in sand supply at the pocket each fronting the site is less than significant.

Biological Resources. As explained above, a 25 foot wide beach is located on the property. Virtually every high tide inundates this small cove, which combined with the boulders and cobbles, make this an unsuitable haul out area for the seals. Otter Cove, just to the north, is a broader, sandier beach, which is used by harbor seals as a haul out and pupping area. It is sandy and has a significant area that is suitable and protected for these marine mammals.

According to the project biologist, seasonally (late March through late June or early July), Otter Cove transforms to become a pupping and basking habitat used by a protected population of Common or Harbor Seals, *Phoca vitulina*. The seals annually occupy the northerly broad sandy beach that is distant and away from view of the seawall area (see photograph above). The installation of the seawall would have a less than significant impact on the seals' pupping and rearing; and the outcome of the completed structure does not affect ongoing seal occupation or reproduction.

The substrate at the base of the cliff (i.e., where workers would have staged to build the seawall, likely with scaffolding), is composed of bedrock, small boulders and cobble; the area is currently not vegetated or colonized with terrestrial or marine biota. The rocky base, as well as the bluff and structure are above the MHTL.

The area above the protected bluff is covered with nonnative and invasive iceplant including at least two species, *Carpobrotus chilensis* and *Carpobrotus edulis*. Iceplant exclusively dominates vegetation cover across the span of the seawall, and the same dense matting extends back toward

the residence for 45-55 feet. The applicant's biologist has determined that the area where the structure was constructed was covered exclusively with iceplant at the time the construction occurred.

In conclusion, the process of constructing the fascia application over the eroding cliff face is consistent with LUP policies by being visually and texturally appropriate, blends into the existing geologic setting, and remains in solid condition. The project does not pose any adverse effects on local native plant life or wildlife, terrestrial or marine.

Viewshed. The project consists of a bluff stabilization/erosion control fascia consisting of an approximately 12 inch thick layer of shotcrete that is designed to match the color and configuration of the original bluff top. The fascia is designed to both stabilize the unconsolidated and surficial materials at the top of the bluff and prevent wave erosion and overtopping by having a slight recurve at the top. Similar materials as used for this site have recently been constructed along 17 Mile Drive and along the Pebble Beach Golf Course; those structures blend well with the natural granitic rock in those locations. The proposed design is not readily visible from public viewing areas (e.g. the nearby parking lot).

The Coastal Act requires that scenic and visual resources be protected by minimizing landform alteration, and by site design and development visually compatible with the character of the surrounding areas. Del Monte Forest LUP policies also require that new development not detract from scenic shorelines and that structures be subordinate to and blended into the environment, using appropriate materials to achieve that effect (LUP Policy #56). The constructed fascia was created in a manner which blends the structure with the surrounding rock at the base of the bluff and appears to be a natural feature of the existing bluff.

The project is consistent with LUP Policy #56 because the visual impacts as seen from the ocean would be minimized by the artificial rock fascia design which uses stone fascia, which was constructed of colored concrete, texturized to match adjacent bluff color, texture, and stratigraphy, and aesthetically blended into the surrounding area. This seawall is not visible from the Cypress Point public parking area and vista point. The project cannot be seen from Highway 1 or from Point Lobos. The project will not affect scenic resources such as trees, rock outcroppings, and historic buildings within a state scenic highway.

Development within 100 feet of Environmentally Sensitive Habitat Area (ESHA). – The project includes application for development within 100 feet of environmentally sensitive habitat areas (ESHA). Although the project site itself does not contain any sensitive species or ESHA, the artificial rock fascia is within 100 feet of ESHA Aquatic/Terrestrial sensitive habitat and is within the area identified as indigenous Monterey Cypress habitat (as delineated in LUP Figure 2a).

Development within 100 feet of ESHA must minimize impacts in accordance with the applicable goals and policies of the LUP. LUP Policies 20 and 72 require the protection of Monterey cypress trees within their indigenous range, to avoid potential damage or degradation of Monterey Cypress habitat. The project site is approximately 120 feet away from the nearest Monterey Cypress. However, although the Read home is within the mapped area of Monterey Cypress habitat, the structure has not resulted in potential damage or degradation of that habitat. Therefore, the project is consistent with Policies 20 and 72 in the Land Use Plan.

LUP Policy 28 requires the management of shoreline areas used by harbor seals to protect seals during the pupping period from April 1 to June 1, including limitations on public access to such areas. The biological reports prepared for the project identified the potential for the intertidal areas located in the general area of the project site to provide habitat for marine vertebrates (i.e., harbor seals). According to the biologist, seasonally (late March through late June or early July), Otter Cove transforms to become a pupping and basking habitat used by a protected population of Common or Harbor Seals. The seals annually occupy the northerly broad sandy beach that is distant and away from view of the project site. It is unlikely that the installation of the seawall would have disturbed the seal's pupping and rearing; and the outcome of the completed structure does not affect ongoing seal occupation and reproduction.

The area above the protected bluff is covered with nonnative and invasive iceplant. LUP Policy 15 encourages the removal of non-native and/or invasive plant species. It is not certain how the invasive species was allowed to establish to the extent that it currently exists at and around the face of the bluff. The iceplant exclusively dominates vegetation cover across the top of the seawall, and the same dense matting extends back toward the residence for 45-55 feet. The biologist has determined that the area where the seawall was constructed was covered exclusively with iceplant at the time of the construction. To be consistent with Policy 15, a condition of approval has been incorporated to require the replacement of iceplant in and around the areas of the bluff with native non-invasive plants.

The biological report indicates that the rocky base appears to be above mean high tide; the structure is above the level of the MHTL. The substrate at the base of the cliff (i.e., where workers would have staged to build the fascia, likely with scaffolding), is composed of bedrock, small boulders and cobble and the area is neither vegetated nor colonized with terrestrial or marine biota. Pursuant to LUP Policy 26, alteration of the shoreline is prohibited except when required to serve coastal-dependent uses, to protect existing structures and public beaches in danger from erosion, and/or to restore and enhance shoreline habitat. The existing shoreline protection device is anchored into the bedrock at the bluff top and will protect the Read home from continued erosion, and will not result in loss of sand/sediment supply or degradation of the shoreline habitat. County staff has reviewed the reports for the as-built structure, and concur that it will minimize the hazard of continued erosion of the bluff and concur with the biologist's conclusion that the project does not threaten to pose any adverse effects on local native plant or wildlife, terrestrial or marine.

Development on Slope Exceeding 30 Percent. The application includes a Coastal Development Permit for development on slopes exceeding 30%. Section 20.64.230 and LUP Policy 78 directs that development on slopes that exceed 30 percent is prohibited unless there is no feasible alternative which would allow development to occur on slopes of less than 30%. In this case, no alternative locations would achieve protection of the bluff from further erosion. The rock fascia will provide protection from future episodic events that could significantly alter the geological stability of the area and undermine the residence. The altering of the shoreline in this case is consistent with the policy objective to protect the existing residential structure and can be permitted.

Archeological Resources. The site is identified as an area of high archaeological sensitivity and is located within 750 feet of a known archaeological source. Pursuant to Section 20.146.080 of the Monterey County Coastal Implementation Plan, Part 5, three (3) previous archaeological reports for the construction of the main dwelling were submitted evaluating the potential for

significant archaeological resources on-site and the potential for impacts to these resources as a result of the project (LIB070604): Preliminary Cultural Resources Reconnaissance was prepared by Archaeological Consulting on May 8, 1987; Secondary Archaeological Testing Report was prepared by Archaeological Consulting on July 27, 1987; and a letter was prepared by Archaeological Consulting on August 17, 1991.

According to a letter prepared by Gary Breschini of Archaeological Consulting, dated August 17, 1991, the reports prepared in 1987 indicated the property contains resources. The letter concludes that though the site produced significant data, the limited temporal span and the small number of artifacts and other cultural remains suggests that the research potential of the site may have been largely exhausted by previous investigations. The structure did not affect known archaeological resources according to the reports.

Environmental Review

A Negative Declaration (see **Exhibit F**) was prepared for the project and was distributed for public review from May 9, 2013 to June 10, 2013. Comments on the Negative Declaration were received from the California Coastal Commission (see **Exhibit G**). Responses to the comments from the California Coastal Commission were submitted by the applicant (see **Exhibit H**). In response to the comments from the California Coastal Commission, staff prepared minor revisions to the Initial Study and an Amended Negative Declaration was prepared. The revisions are shown in strikeouts (deletions) and underlining (additions) in **Exhibit F**. The amended language does not identify any new impacts and the thresholds for recirculation of a Negative Declaration, as outlined in CEQA Guidelines section 15073.5, were not met.

The Initial Study concludes that the project does not significantly impact the environment nor will it cause a significant impact in the future. The purpose of the seawall is to prevent further erosion which could undermine the stability of the bluff area. No present or future significance impacts were identified from the installation and continuation of the structure.

Conclusion

The as-built existing shoreline protection device that was installed on the Read property requires a Combined Development Permit to allow the fascia to remain. The primary issue is erosive wave activity which is affecting the geologic stability of the area between the bluff and the residence. The Geologic Report (**Exhibit K**) concludes that there is a clear risk from extreme events that will only increase in the future given the observed trends in sea level rise and wave heights. Extreme events have brought ocean water to the front of the Read home. As such, the project could be considered to be permissible under Section 20.147.060)(B)(7) of Part 5 of the Coastal IP and Policy 44 in the Del Monte Forest Land Use Plan. Staff recommends that the Commission accept the conclusions in the Initial Study and stated in the staff report and approve the project.

**EXHIBIT C
DRAFT RESOLUTION**

**Before the Planning Commission in and for the
County of Monterey, State of California**

In the matter of the application of:

READ, PETER (PLN100670)

RESOLUTION NO. ----

Resolution by the Monterey County Planning
Commission:

- 1) Adopting an Amended Negative Declaration based on the whole of the record that there is no substantial evidence that the project will have a significant effect on the environment; and
- 2) Approving a Combined Development Permit as an after-the-fact permit consisting of: a) Coastal Development Permit allowing bluff stabilization/erosion control to prevent structural damage from tidal erosion of terrace deposits and overlying soils. The artificial rock fascia is designed to match the existing shoreline contour, texture and color; b) Coastal Development Permit to allow development within 100 feet of environmentally sensitive habitat; c) Coastal Development Permit to allow development on slopes of 30% or greater; and d) Coastal Development Permit for development within 750 feet of a known archaeological resource, based on the findings and evidence and subject to conditions of approval.

[PLN100670, Read, Peter, 3158 Seventeen Mile Drive, Pebble Beach , Del Monte Forest Land Use Plan (APN: 008-491-013-000)]

The Combined Development Permit application (PLN100670) came on for public hearing before the Monterey County Planning Commission on October 9, 2013. Having considered all the written and documentary evidence, the administrative record, the staff report, oral testimony, and other evidence presented, the Planning Commission finds and decides as follows:

FINDINGS

1. **FINDING:** **PROJECT DESCRIPTION** – The proposed project is a Combined Development Permit as an after-the-fact permit consisting of: 1) Coastal Development Permit allowing bluff stabilization/erosion control to prevent structural damage from tidal erosion of terrace deposits and overlying soils. The artificial rock fascia is designed to match the existing shoreline contour, texture and color; 2) A Coastal Development Permit to allow development within 100 feet of

environmentally sensitive habitat; 3) a Coastal Development Permit to allow development on slopes of 30% or greater; and 4) a Coastal Development Permit for development within 750 feet of a known archaeological resource.

EVIDENCE: The application, project plans, and related support materials submitted by the project applicant to the Monterey County RMA - Planning Department for the proposed development found in Project File PLN100670.

2. **FINDING:** **CONSISTENCY** – The Project, as conditioned, is consistent with the applicable plans and policies which designate this area as appropriate for development.

EVIDENCE: a) During the course of review of this application, the project has been reviewed for consistency with the text, policies, and regulations in:

- the 1982 Monterey County General Plan;
- Del Monte Forest Land Use Plan;
- Monterey County Coastal Implementation Plan Part 5; and
- Monterey County Zoning Ordinance (Title 20).

No conflicts were found to exist. No communications were received during the course of review of the project indicating any inconsistencies with the text, policies, and regulations in these documents.

- b) The property is located at 3158 Seventeen Mile Drive, Pebble Beach (Assessor's Parcel Number 008-491-013-000), Del Monte Forest Land Use Plan. The parcel is zoned "LDR/2-D (CZ)" [Low Density Residential/2 units per acre-Design Control District in the Coastal Zone], which allows for accessory uses, i.e., a seawall, which is clearly incidental and does not change the character of the permitted use. Therefore, the project is an allowed land use for this site.
- c) This is an after-the-fact approval for bluff stabilization/erosion control improvements (seawall) constructed without permits. Engineering reports indicate this structure was needed to protect an existing residence from coastal erosion damage. This structure was designed and installed to prevent wave attack from episodic events that could further erode the terrace deposits and overlying soils and stabilize the unconsolidated and surficial materials atop the bluff.
- d) Design Approval Pursuant to Chapter 20.44, Design Control Zoning Districts, zoning for the project requires design review of structures to make sure they are appropriate to assure protection of the public viewshed, neighborhood character, and assure visual integrity. The project consists of a bluff stabilization/erosion control fascia along the uppermost portion of a coastal bluff adjacent to the Read home. A 12-inch thick layer of shotcrete uses coloring and a configuration to resemble the original bluff. It consists of an artificial rock fascia design that uses stone fascia, constructed of colored concrete, texturized to match adjacent bluff color, texture, and stratigraphy, which will aesthetically blend into the surrounding area. The constructed fascia was created in a manner which blends the structure with the surrounding rock at the base of the bluff and appears to be a natural feature of the existing bluff.
- e) Visual Resources. The Coastal Act requires that scenic and visual

resources be protected by minimizing landform alteration, and by site design and development visually compatible with the character of the surrounding areas. Del Monte Forest LUP policies also require that new development not detract from scenic shorelines and that structures be subordinate to and blended into the environment, using appropriate materials to achieve that effect (LUP Policy #56). The constructed fascia was created in a manner which blends the structure with the surrounding rock at the base of the bluff and appears to be a natural feature of the existing bluff. The fascia is designed to both stabilize the unconsolidated and surficial materials at the top of the bluff and prevent wave erosion and overtopping by having a slight recurve at the top. Similar materials as used for this site have recently been constructed along 17 Mile Drive and along the Pebble Beach Golf Course; those structures blend well with the natural granitic rock in those locations. The proposed design is not readily visible from public viewing areas (e.g. the nearby parking lot). The project will not affect scenic resources such as trees, rock outcroppings, and historic buildings within a state scenic highway. This project has been evaluated for consistency with the Aesthetics policies of the Del Monte Forest Land Use Plan (DMFLUP) and Coastal Implementation Plan as part of the Amended Negative Declaration (*See Finding 7*).

- f) Development on Slopes Exceeding 30%. The application includes a Coastal Development Permit for development on slopes exceeding 30%. Section 20.64.230 and LUP Policy 78 directs that development on slopes that exceed 30 percent is prohibited unless there is no feasible alternative which would allow development to occur on slopes of less than 30%. In this case, no alternative locations would achieve protection of the bluff from further erosion. The rock fascia will provide protection from future episodic events that could significantly alter the geological stability of the area and undermine the residence. The altering of the shoreline in this case is consistent with the policy objective to protect the existing residential structure and can be permitted. The area of 30 percent slopes is located in the rock outcroppings between the property and the ocean.
- g) Cultural Resources. The site is identified as an area of high archaeological sensitivity and is located within 750 feet of a known archaeological source. Pursuant to Section 20.146.080 of the Monterey County Coastal Implementation Plan, Part 5, three (3) previous archaeological reports for the construction of the main dwelling were submitted evaluating the potential for significant archaeological resources on-site and the potential for impacts to these resources as a result of the project (LIB070604): Preliminary Cultural Resources Reconnaissance was prepared by Archaeological Consulting on May 8, 1987; Secondary Archaeological Testing Report was prepared by Archaeological Consulting on July 27, 1987; and a letter was prepared by Archaeological Consulting on August 17, 1991. According to a letter prepared by Gary Breschini of Archaeological Consulting, dated August 17, 1991, the reports prepared in 1987 indicated the property contains resources. The letter concludes that though the site produced significant data, the limited temporal span and the small number of

artifacts and other cultural remains suggests that the research potential of the site may have been largely exhausted by previous investigations. The structure did not affect known archaeological resources according to the reports. This project has been evaluated for consistency with the Cultural Resources policies of the Del Monte Forest Land Use Plan (DMFLUP) and Coastal Implementation Plan as part of the Amended Negative Declaration (*See Finding 7*).

- h) ESHA. The project includes application for development within 100 feet of environmentally sensitive habitat areas (ESHA). Although the project site itself does not contain any sensitive species or ESHA, the artificial rock facia is within 100 feet of ESHA Aquatic/Terrestrial sensitive habitat and is within the area identified as indigenous Monterey Cypress habitat (as delineated in LUP Figure 2a). A Letter Report and Opinion Concerning Read Residence at Otter Cove, Pebble Beach, CA” prepared by Jeff Froke, Biologist, dated January 11, 2013 concludes that the project does not threaten to pose any adverse effects on local native plants or wildlife, terrestrial or marine (*See ESHA Finding 6*).
- i) Geology. Pursuant to Section 20.147.060 of the Monterey County Coastal Implementation Plan, regardless of a parcel’s seismic hazard zone, a geologic report shall be required for any development project within 50 feet of the face of a cliff or bluff or within the area of a 20 degree angle above horizontal from the fact of a cliff, whichever is greater. Section 20.147.060.E.2 of the CIP establishes the approval standard for shoreline protection as being circumstances where such protection is determined to be “*necessary by a qualified civil engineer versed in shoreline protection to protect existing development.*” A Geologic Report Focused on Wave Impact Hazards, Coastal Bluff Erosion, and Shoreline Protection on the Read Property dated August 2011 was prepared by Gary Griggs, Consulting Coastal Geologist. The report addresses the process of coastal erosion/bluff retreat, documents the rates and uncertainties involved, summarizes previous coastal erosion investigations and rates, and discusses the influences of future sea-level rise, changing wave and climate and historic extreme events, as well as existing and future risks to the Read home. The Geologic Report concludes that there is a clear risk from extreme events that will only increase in the future given the observed trends in sea level rise and wave heights. Extreme events have brought ocean water to the front of the Read home. As such, the project is permissible under Section 20.147.060)(B)(7) of Part 5 of the Coastal IP and Policy 44 in the Del Monte Forest Land Use Plan. This project has been evaluated for consistency with the Geology/Soils policies of the Del Monte Forest Land Use Plan (DMFLUP) and Coastal Implementation Plan as part of the Amended Negative Declaration (*See Finding 7*).
- j) The project planner conducted site inspections on January 5 and September 11, 2012 to verify that the project on the subject parcel conforms to the plans listed above.
- k) On September 15, 2011, the project was referred to the Del Monte Forest Land Use Advisory Committee (LUAC) for review. They recommended to support the project as proposed (5-0 vote) with a

question as to why this was an after the fact permit. Reason was given that the owner was unaware a permit was required.

- 1) The application, project plans, and related support materials submitted by the project applicant to the Monterey County RMA - Planning Department for the proposed development found in Project File PLN100670.

3. **FINDING:** **SITE SUITABILITY** – The site is physically suitable for the use proposed.

- EVIDENCE:**
- a) The project has been reviewed for site suitability by the following departments and agencies: RMA - Planning Department, Pebble Beach Community Services District, Public Works, Environmental Health Bureau, and Water Resources Agency. There has been no indication from these departments/agencies that the site is not suitable for the proposed development. Conditions recommended have been incorporated.
 - b) Staff identified potential impacts to Biological Resources, Archaeological Resources, Soil/Slope Stability and Hydrology/Water Quality. The following reports have been prepared:
 - “Geologic Report Focusing On Coastal Erosion Rates for an Existing Single Family Home and Guest House at 3158 17-Mile Drive, Pebble Beach (APN 008-491-014-000)” prepared by Nielsen and Associates Engineering Geology and Coastal Consulting. March 4, 2004.
 - “Letter Report Regarding Coastal Engineering and Wave Run-up Analysis. Comparison of conditions Affecting Wave Run-up Elevations at 3158 17 Mile Drive Pebble Beach” prepared by Haro, Kasunich And Associates, Inc., dated July 12, 2011.
 - “Geologic Focused Report on Wave Impact Hazards, Coastal Bluff Erosion, and Shoreline Protection on the Read Property at 3158 17-Mile Drive, Pebble Beach (APN: 008-491-014-000)” prepared by Gary Griggs, Consulting Coastal Geologist, dated August 2011.
 - “Letter Report and Opinion Concerning Read Residence at Otter Cove, Pebble Beach, CA” prepared by Jeff Froke, Biologist, dated January 11, 2013.
 - “Letter containing Addendum to Evaluation of Coastal Erosion and Protection Issues at Otter Cove, 3158 17-Mile Drive, Pebble Beach” prepared by Gary Griggs dated January 19, 2013.
 - Letter from Gary S. Breschini, Ph.D. Archaeological Consulting (LIB070604), Salinas, CA, dated August 17, 1991; containing prior Archaeological Reports:
 - a) “Preliminary Cultural Resources Reconnaissance of Parcel 008-491-013” prepared by Gary S. Breschini, Ph.D. of Archaeological Consulting, Salinas, CA, dated May 8, 1987;
 - b) “Preliminary Report of Secondary Archaeological Testing at Sysorex Residence, Cypress Point” prepared by Gary S. Breschini, Ph.D. of Archaeological Consulting, Salinas, CA, dated July 27, 1987

The above-mentioned technical reports by outside consultants indicated that there are no physical or environmental constraints that would

indicate that the site is not suitable for the use proposed. County staff has independently reviewed these reports and concurs with their conclusions.

- c) Staff conducted site inspections on January 5 and September 11, 2012 to verify that the site is suitable for this use.
- d) The application, project plans, and related support materials submitted by the project applicant to the Monterey County RMA - Planning Department for the proposed development found in Project File PLN100670.

4. **FINDING:** **HEALTH AND SAFETY** - The establishment, maintenance, or operation of the project applied for will not under the circumstances of this particular case be detrimental to the health, safety, peace, morals, comfort, and general welfare of persons residing or working in the neighborhood of such proposed use, or be detrimental or injurious to property and improvements in the neighborhood or to the general welfare of the County.

- EVIDENCE:**
- a) The project was reviewed by the RMA - Planning Department, Pebble Beach Community Services District, Public Works, Environmental Health Bureau, and Water Resources Agency. The respective agencies have recommended conditions, where appropriate, to ensure that the project will not have an adverse effect on the health, safety, and welfare of persons either residing or working in the neighborhood.
 - b) Necessary public facilities are currently available for the existing single family dwelling and will not be required for the seawall.
 - c) See Preceding Findings #1, #2, #3 and supporting evidences.
 - d) Staff conducted site inspections on January 5 and September 11, 2012 to verify that the site is suitable for this use.
 - e) The application, project plans, and related support materials submitted by the project applicant to the Monterey County RMA - Planning Department for the proposed development found in Project File PLN100670.

5. **FINDING:** **VIOLATIONS** - The subject property is not in compliance with all rules and regulations. Violations exist on the property.

- EVIDENCE:**
- a) Staff conducted site inspections on January 5 and September 11, 2012 and researched County records to assess if any violation exists on the subject property.
 - b) There is a California Coastal Commission violation (#V-3-10-037) on the property since the artificial wall fascia was installed without a permit.
 - c) Staff reviewed Monterey County RMA - Planning Department and Building Services Department records and is not aware of any other violations of County regulations on subject property.
 - d) The application, plans and supporting materials submitted by the project applicant to the Monterey County Planning Department for the proposed development are found in Project File PLN100670.

6. **FINDING:** **ESHA** – The subject project minimizes impact on environmentally sensitive habitat areas in accordance with the applicable goals and

- policies of the applicable area plan and zoning codes.
- EVIDENCE:**
- a) The project includes application for development within 100 feet of environmentally sensitive habitat areas (ESHA). In accordance with the applicable policies of the Del Monte Forest Land Use Plan and the Monterey County Zoning Ordinance (Title 20), a Coastal Development Permit is required and the authority to grant said permit has been met.
 - b) Development within 100 feet of ESHA must minimize impacts in accordance with the applicable goals and policies of the LUP. LUP Policies 20 and 72 require the protection of Monterey cypress trees within their indigenous range, to avoid potential damage or degradation of Monterey Cypress habitat. The project site is approximately 120 feet away from the nearest Monterey Cypress; however, although the existing structure is within the mapped area of the Monterey Cypress habitat, the structure has not resulted in potential damage or degradation of Monterey Cypress habitat. Therefore, the project is consistent with Policies 20 and 72 in the Land Use Plan.
 - c) LUP Policy 28 requires the management of shoreline areas used by harbor seals to protect seals during the pupping period from April 1 to June 1, including limitations on public access to such areas. The biological reports prepared for the project identified the potential for the intertidal areas located in the general area of the project site to provide habitat for marine vertebrates (i.e., harbor seals). According to the biologist, seasonally (late March through late June or early July), Otter Cove transforms to become a pupping and basking habitat used by a protected population of Common or Harbor Seals. The seals annually occupy the northerly broad sandy beach that is distant and away from view of the project site. It is unlikely that the installation of the seawall would have disturbed the seal's pupping and rearing; and the outcome of the completed structure does not affect ongoing seal occupation and reproduction.
 - d) The area above the protected bluff is covered with nonnative and invasive iceplant. LUP Policy 15 encourages the removal of non-native and/or invasive plant species. It is not certain how the invasive species was allowed to establish to the extent that it currently exists at and around the face of the bluff. The iceplant exclusively dominates vegetation cover across the top of the seawall, and the same dense matting extends back toward the residence for 45-55 feet. The biologist has determined that the area where the seawall was constructed was covered exclusively with iceplant at the time of the construction. To be consistent with Policy 15, a condition of approval has been incorporated to require the replacement of iceplant in and around the areas of the bluff with native non-invasive plants (Condition #7).
 - e) The biological report indicates that the rocky base appears to be above mean high tide; the structure is above the level of the MHTL. The substrate at the base of the cliff (i.e., where workers would have staged to build the fascia, likely with scaffolding), is composed of bedrock, small boulders and cobble and the area is neither vegetated nor colonized with terrestrial or marine biota. Pursuant to LUP Policy 26, alteration of the shoreline is prohibited except when required to serve coastal-dependent uses, to protect existing structures and public

beaches in danger from erosion, and/or to restore and enhance shoreline habitat. The existing shoreline protection device is anchored into the bedrock at the bluff top and will protect the Read home from continued erosion, and will not result in loss of sand/sediment supply or degradation of the shoreline habitat.

- f) Staff conducted a site inspection on January 5 and September 11, 2012 to verify that the site is suitable for this use.
- g) The application, project plans, and related support materials submitted by the project applicant to the Monterey County RMA - Planning Department for the proposed development found in Project File PLN100670.

7. **FINDING:** **CEQA (Amended Negative Declaration)** - On the basis of the whole record before the Monterey County Planning Commission, there is no substantial evidence that the proposed project as designed, conditioned and mitigated, will have a significant effect on the environment. The Amended Negative Declaration reflects the independent judgment and analysis of the County.

- EVIDENCE:**
- a) Public Resources Code Section 21080.d and California Environmental Quality Act (CEQA) Guidelines Section 15064.a.1 require environmental review if there is substantial evidence that the project may have a significant effect on the environment.
 - b) The Monterey County Planning Department prepared an Initial Study pursuant to CEQA. The Initial Study is on file in the offices of the Planning Department and is hereby incorporated by reference (PLN100670).
 - c) The Initial Study provides substantial evidence based upon the record as a whole, that the project would not have a significant effect on the environment. Staff accordingly prepared a Negative Declaration.
 - d) An Amended Negative Declaration (**Exhibit F of the staff report**) was prepared for the project and was distributed for public review from May 9, 2013 to June 10, 2013 (SCH#: 2013051024).
 - e) Issues analyzed for impacts from the rock fascia in the Negative Declaration include: shoreline aesthetics, biological resources, cultural resources, geological and soil conditions. Impacts were evaluated as if the structure was not yet built, and also analyzes the potential cumulative armoring affect with a seawall approved, but not yet constructed, to protect a large cypress tree on this property (PLN060059).
 - f) Evidence that has been received and considered includes: the application, technical studies/reports (see Findings 2/Consistency and 3/Site Suitability), staff reports that reflect the County's independent judgment, and information and testimony presented during public hearings. These documents are on file in the RMA-Planning Department (PLN100670) and are hereby incorporated herein by reference.
 - g) Staff analysis contained in the Initial Study and the record as a whole indicate the project could result in changes to the resources listed in Section 753.5(d) of the California Department of Fish and Game (CDFG) regulations. All land development projects that are subject to

environmental review are subject to a State filing fee plus the County recording fee, unless the Department of Fish and Game determines that the project will have no effect on fish and wildlife resources.

The site is within 100 feet of ESHA Aquatic/Terrestrial sensitive habitat and is within the area identified as indigenous Monterey Cypress habitat. For purposes of the Fish and Game Code, the project may have a significant adverse impact on the fish and wildlife resources upon which the wildlife depends. The Initial Study was sent to the California Department of Fish and Game for review, comment, and to recommend necessary conditions to protect biological resources in this area. Therefore, the project will be required to pay the State fee plus a fee payable to the Monterey County Clerk/Recorder for processing said fee and posting the Notice of Determination (NOD). (Condition #6)

- h) Comments on the Negative Declaration were received from the California Coastal Commission (see **Exhibit G of the staff report**), and responses to these comments were submitted by the applicant (see **Exhibit H of the staff report**). In response to the comments from the California Coastal Commission, staff made minor revisions to the Initial Study and an Amended Negative Declaration was prepared (**Exhibit F of the staff report**). The changes did not alter any of the conclusions or identify any new significant effects and recirculation was not triggered (CEQA Guidelines Section 15073.5).
- i) The Monterey County Planning Department, located at 168 W. Alisal, 2nd Floor, Salinas, California, 93901, is the custodian of documents and other materials that constitute the record of proceedings upon which the decision to adopt the negative declaration is based.

8. **FINDING:** **PUBLIC ACCESS** – The project is in conformance with the public access and recreation policies of the Coastal Act (specifically Chapter 3 of the Coastal Act of 1976, commencing with Section 30200 of the Public Resources Code) and Local Coastal Program, and does not interfere with any form of historic public use or trust rights.

- EVIDENCE:**
- a) No access is required as part of the project as no substantial adverse impact on access, either individually or cumulatively, as described in Section 20.70.050.B.4.c of the Monterey County Coastal Implementation Plan can be demonstrated.
 - b) The subject property is not described as an area where the Local Coastal Program requires public access (Figure 16 of the Shoreline Access Map in the Del Monte Forest Land Use Plan).
 - c) No evidence or documentation has been submitted or found showing the existence of historic public use or trust rights over this property.
 - d) The application, plans and supporting materials submitted by the project applicant to the Monterey County Planning Department for the proposed development are found in Project File PLN100670.
 - e) The project planner conducted site inspections on January 5 and September 11, 2012.

9. **FINDING:** **APPEALABILITY** - The decision on this project may be appealed to the Board of Supervisors and the California Coastal Commission.

- EVIDENCE:**
- a) Section 20.86.030 of the Monterey County Zoning Ordinance states that

- the proposed project is appealable to the Board of Supervisors.
- b) Section 20.86.080.A.3 of the Monterey County Zoning Ordinance states that the proposed project is subject to appeal by/to the Coastal Commission because the project includes conditional uses (Coastal Development Permit) to allow development within 100 feet of Environmentally Sensitive Habitat, development on slope of 30% or greater, and development within 750 feet of a known archaeological resource.

DECISION

NOW, THEREFORE, based on the above findings and evidence, the Planning Commission does hereby:

1. Adopt an Amended Negative Declaration based on the whole of the record that there is no substantial evidence that the project will have a significant effect on the environment; and
2. Approve a Combined Development Permit as an after-the-fact permit consisting of: 1) Coastal Development Permit allowing bluff stabilization/erosion control to prevent structural damage from tidal erosion of terrace deposits and overlying soils. The artificial rock fascia is designed to match the existing shoreline contour, texture and color; 2) A Coastal Development Permit to allow development within 100 feet of environmentally sensitive habitat; 3) a Coastal Development Permit to allow development on slopes of 30% or greater; and 4) a Coastal Development Permit for development within 750 feet of a known archaeological resource, in general conformance with the attached sketch and subject to the attached conditions, all being attached hereto and incorporated herein by reference.

PASSED AND ADOPTED this 9th day of October, 2013 upon motion of _____, seconded by _____, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

Mike Novo, Secretary

COPY OF THIS DECISION MAILED TO APPLICANT ON

THIS APPLICATION IS APPEALABLE TO THE BOARD OF SUPERVISORS AND THE CALIFORNIA COASTAL COMMISSION.

IF ANYONE WISHES TO APPEAL THIS DECISION, AN APPEAL FORM MUST BE COMPLETED AND SUBMITTED TO THE CLERK TO THE BOARD ALONG WITH THE APPROPRIATE FILING FEE ON OR BEFORE

THIS PROJECT IS LOCATED IN THE COASTAL ZONE AND IS APPEALABLE TO THE COASTAL COMMISSION. UPON RECEIPT OF NOTIFICATION OF THE FINAL LOCAL ACTION NOTICE (FLAN) STATING THE DECISION BY THE FINAL DECISION MAKING BODY, THE COMMISSION ESTABLISHES A 10 WORKING DAY APPEAL PERIOD. AN APPEAL FORM MUST BE FILED WITH THE COASTAL COMMISSION. FOR FURTHER INFORMATION,

CONTACT THE COASTAL COMMISSION AT (831) 427-4863 OR AT 725 FRONT STREET, SUITE 300, SANTA CRUZ, CA

This decision, if this is the final administrative decision, is subject to judicial review pursuant to California Code of Civil Procedure Sections 1094.5 and 1094.6. Any Petition for Writ of Mandate must be filed with the Court no later than the 90th day following the date on which this decision becomes final.

NOTES

1. You will need a building permit and must comply with the Monterey County Building Ordinance in every respect.

Additionally, the Zoning Ordinance provides that no building permit shall be issued, nor any use conducted, otherwise than in accordance with the conditions and terms of the permit granted or until ten days after the mailing of notice of the granting of the permit by the appropriate authority, or after granting of the permit by the Board of Supervisors in the event of appeal.

Do not start any construction or occupy any building until you have obtained the necessary permits and use clearances from the Monterey County Planning Department and Building Services Department office in Salinas.

2. This permit expires 3 years after the above date of granting thereof unless construction or use is started within this period.

Form Rev. 01-31-2013

Monterey County Planning Department

DRAFT Condition of Approval Implementation Plan/Mitigation Monitoring Reporting Plan

PLN100670

1. PD001 - SPECIFIC USES ONLY

Responsible Department: Planning Department

Condition/Mitigation Monitoring Measure: This Combined Development Permit as an after-the-fact permit consisting of: 1) Coastal Development Permit allowing bluff stabilization/erosion control to prevent structural damage from tidal erosion of terrace deposits and overlying soils. The artificial rock fascia is designed to match the existing shoreline contour, texture and color; 2) A Coastal Development Permit to allow development within 100 feet of environmentally sensitive habitat; 3) a Coastal Development permit to allow development on slopes of 30% or greater; and 4) a Coastal Development Permit for development within 750 of a known archaeological resource. was approved in accordance with County ordinances and land use regulations subject to the terms and conditions described in the project file. Neither the uses nor the construction allowed by this permit shall commence unless and until all of the conditions of this permit are met to the satisfaction of the Director of the RMA - Planning Department. Any use or construction not in substantial conformance with the terms and conditions of this permit is a violation of County regulations and may result in modification or revocation of this permit and subsequent legal action. No use or construction other than that specified by this permit is allowed unless additional permits are approved by the appropriate authorities. To the extent that the County has delegated any condition compliance or mitigation monitoring to the Monterey County Water Resources Agency, the Water Resources Agency shall provide all information requested by the County and the County shall bear ultimate responsibility to ensure that conditions and mitigation measures are properly fulfilled.
(RMA - Planning Department)

Compliance or Monitoring Action to be Performed: The Owner/Applicant shall adhere to conditions and uses specified in the permit on an ongoing basis unless otherwise stated.

2. PD002 - NOTICE PERMIT APPROVAL

Responsible Department: Planning Department

Condition/Mitigation Monitoring Measure: The applicant shall record a Permit Approval Notice.
This notice to contain the Resolution Number, Name of Hearing Body, Assessor's Parcel Number, Date the permit was approved, and the statements "The permit was granted subject to 7 conditions of approval which run with the land" and "A copy of the permit is on file with the Monterey County RMA - Planning Department."
Proof of recordation of this notice shall be furnished to the Director of the RMA - Planning Department prior to issuance of building permits or commencement of the use.
(RMA - Planning Department)

Compliance or Monitoring Action to be Performed: Prior to the issuance of grading and building permits or commencement of use, the Owner/Applicant shall provide proof of recordation of this notice to the RMA - Planning Department.

3. PD003(A) - CULTURAL RESOURCES NEGATIVE ARCHAEOLOGICAL REPORT

Responsible Department: Planning Department

Condition/Mitigation Monitoring Measure: If, during the course of construction, cultural, archaeological, historical or paleontological resources are uncovered at the site (surface or subsurface resources) work shall be halted immediately within 50 meters (165 feet) of the find until a qualified professional archaeologist can evaluate it. The Monterey County RMA - Planning Department and a qualified archaeologist (i.e., an archaeologist registered with the Register of Professional Archaeologists) shall be immediately contacted by the responsible individual present on-site. When contacted, the project planner and the archaeologist shall immediately visit the site to determine the extent of the resources and to develop proper mitigation measures required for recovery.
(RMA - Planning Department)

Compliance or Monitoring Action to be Performed: The Owner/Applicant shall adhere to this condition on an on-going basis. Stop work within 50 meters (165 feet) of uncovered resource and contact the Monterey County RMA - Planning Department and a qualified archaeologist immediately if cultural, archaeological, historical or paleontological resources are uncovered. When contacted, the project planner and the archaeologist shall immediately visit the site to determine the extent of the resources and to develop proper mitigation measures required for the discovery.

4. PD004 - INDEMNIFICATION AGREEMENT

Responsible Department: Planning Department

Condition/Mitigation Monitoring Measure: The property owner agrees as a condition and in consideration of approval of this discretionary development permit that it will, pursuant to agreement and/or statutory provisions as applicable, including but not limited to Government Code Section 66474.9, defend, indemnify and hold harmless the County of Monterey or its agents, officers and employees from any claim, action or proceeding against the County or its agents, officers or employees to attack, set aside, void or annul this approval, which action is brought within the time period provided for under law, including but not limited to, Government Code Section 66499.37, as applicable. The property owner will reimburse the County for any court costs and attorney's fees which the County may be required by a court to pay as a result of such action. The County may, at its sole discretion, participate in the defense of such action; but such participation shall not relieve applicant of his obligations under this condition. An agreement to this effect shall be recorded upon demand of County Counsel or concurrent with the issuance of building permits, use of property, filing of the final map, whichever occurs first and as applicable. The County shall promptly notify the property owner of any such claim, action or proceeding and the County shall cooperate fully in the defense thereof. If the County fails to promptly notify the property owner of any such claim, action or proceeding or fails to cooperate fully in the defense thereof, the property owner shall not thereafter be responsible to defend, indemnify or hold the County harmless.
(RMA - Planning Department)

Compliance or Monitoring Action to be Performed: Upon demand of County Counsel or concurrent with the issuance of building permits, use of the property, recording of the final/parcel map, whichever occurs first and as applicable, the Owner/Applicant shall submit a signed and notarized Indemnification Agreement to the Director of RMA-Planning Department for review and signature by the County.

Proof of recordation of the Indemnification Agreement, as outlined, shall be submitted to the RMA-Planning Department.

5. PD009 - GEOTECHNICAL CERTIFICATION

Responsible Department: Planning Department

Condition/Mitigation Monitoring Measure: Prior to final inspection, the geotechnical consultant shall provide certification that all development has been constructed in accordance with the geotechnical report.
(RMA - Planning and RMA - Building Services)

Compliance or Monitoring Action to be Performed: Prior to final inspection, the Owner/Applicant/Geotechnical Consultant shall submit certification by the geotechnical consultant to RMA-Building Services showing project's compliance with the geotechnical report.

6. PD005 - FISH & GAME FEE NEG DEC/EIR

Responsible Department: Planning Department

Condition/Mitigation Monitoring Measure: Pursuant to the State Public Resources Code Section 753.5, State Fish and Game Code, and California Code of Regulations, the applicant shall pay a fee, to be collected by the County, within five (5) working days of project approval. This fee shall be paid before the Notice of Determination is filed. If the fee is not paid within five (5) working days, the project shall not be operative, vested or final until the filing fees are paid. (RMA - Planning)

Compliance or Monitoring Action to be Performed: Within five (5) working days of project approval, the Owner/Applicant shall submit a check, payable to the County of Monterey, to the Director of RMA - Planning.

If the fee is not paid within five (5) working days, the applicant shall submit a check, payable to the County of Monterey, to the Director of RMA - Planning prior to the recordation of the final/parcel map, the start of use, or the issuance of building permits or grading permits.

7. SPD001 LANDSCAPE PLAN (NON-STANDARD)

Responsible Department: Planning Department

Condition/Mitigation Monitoring Measure: Within 90 days of approving this permit, the Owner/Applicant/Licensed Landscape Contractor/Licensed Landscape Architect shall submit three copies of a landscape plan to the Director of Planning for review and approval. The the applicant shall remove the non native iceplant between the residence and the bluff and the area shall be relandscaped consistent with native species found on the project area within 180 days of approving this permit. The approved Landscape plans shall include all recommendations from the Biological Survey as notes on the plan. The plan shall include a contractors estimate for materials and labor to remove the invasive iceplant and installation of native vegetation. (RMA - Planning)

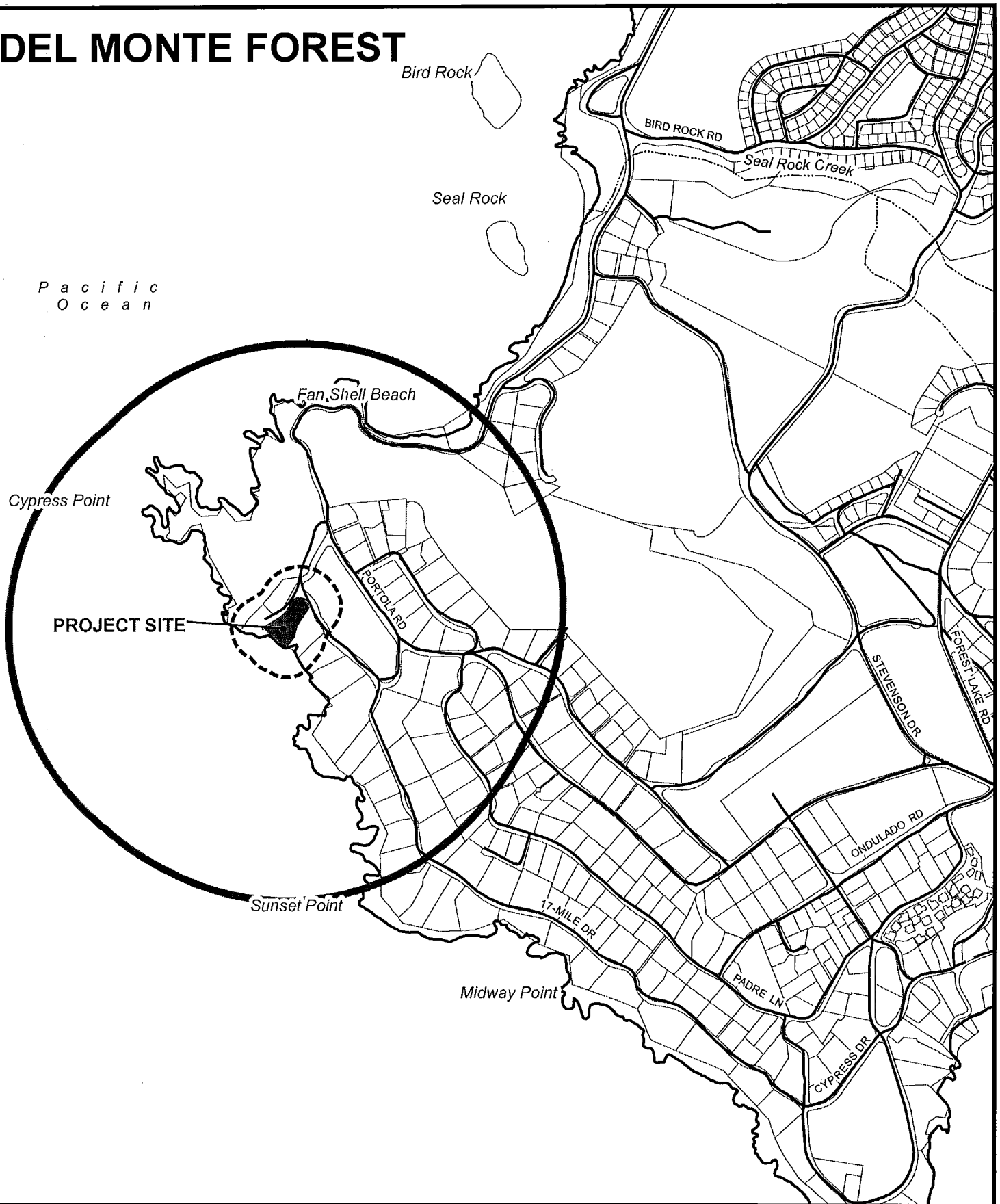
Compliance or Monitoring Action to be Performed: Within 90 days of approving this permit, the Owner/Applicant/Licensed Landscape Contractor/Licensed Landscape Architect shall submit three copies of a landscape plan to the Director of Planning for review and approval. The plan shall include a contractors estimate for the landscaping materials and labor costs to remove the invasive iceplant and installation of native vegetation. Landscaping plans shall include the recommendations from the Biological Survey as applicable. All landscape plans shall be signed and stamped by licensed professional under the following statement,

"I certify that this landscaping and irrigation plan complies with all Monterey County landscaping requirements including use of native, drought-tolerant, non-invasive species; limited turf; and low-flow, water conserving irrigation fixtures."

On the 180 day if the the invasive iceplant and landscaping has not been completed the owner of the property will submit a completion bond for the landscaping which may be returned upon final inspection

EXHIBIT D
READ (PLN100670)
VICINITY MAP

DEL MONTE FOREST

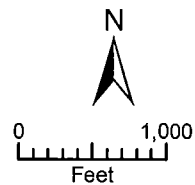


APPLICANT: READ

APN:008-491-013-000

FILE # PLN100670

Water 2500' Limit 300' Limit City Limits



PLANNER: MONTANO

EXHIBIT E
READ (PLN100670)
ADVISORY COMMITTEE LUAC MINUTES

MINUTES
Del Monte Forest Land Use Advisory Committee
Thursday, September 15, 2011

1. Meeting called to order by ROD DEWAR at 3:02 pm

2. Roll Call

Members Present: ROD DEWAR, SANDI VERBANEC, LORI LIETZKE, JOELLA SZABO, KIM CANEER, JUNE STOCK

Members Absent: SANDY GETREV

3. Approval of Minutes:

A. September 1, 2011 minutes

Motion: STOCK (LUAC Member's Name)

Second: CANEER (LUAC Member's Name)

Ayes: DEWAR, VERBANEC, SZABO, CANEER, STOCK

Noes: ∅

Absent: GETREV

Abstain: LIETZKE

4. **Public Comments:** The Committee will receive public comment on non-agenda items that are within the purview of the Committee at this time. The length of individual presentations may be limited by the Chair.

NONE

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SEP 16 2011

MONTEREY COUNTY
PLANNING & BUILDING
INSPECTION DEPT.

5. Scheduled Item(s)

6. Other Items:

A) Preliminary Courtesy Presentations by Applicants Regarding Potential Projects

NONE

B) Announcements

NONE

7. Meeting Adjourned: 5:30 pm

Minutes taken by: LIETZKE

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MONTEREY COUNTY
PLANNING & BUILDING
INSPECTION DEPT.

Action by Land Use Advisory Committee Project Referral Sheet

Monterey County Planning Department
168 W Alisal St 2nd Floor
Salinas CA 93901
(831) 755-5025

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SEP 16 2011

Advisory Committee: **Del Monte Forest**

Please submit your recommendations for this application by: **September 15, 2011**

**MONTEREY COUNTY
PLANNING & BUILDING
INSPECTION DEPT.**

Project Title: READ JAMES PETER JR TR ET AL

File Number: PLN100670

File Type: PC

Planner: MONTANO

Location: 3158 17 MILE DR PEBBLE BEACH

Project Description:

Coastal Development Permit as an after-the-fact permit to allow a Bluff Erosion Protection Device approximately 101 feet in length varying in height up to 10 feet from bottom of bluff. The artificial rock fascia is designed to match the natural contour of the shoreline and the existing Granite Bedrock in texture and color. The property is located at 3158 17 Mile Drive, Pebble Beach (Assessor's Parcel Number 008-491-013-000), fronting on 17 Mile Drive, Del Monte Forest area, Coastal Zone.

Was the Owner/Applicant/Representative Present at Meeting? Yes X No _____

JOHN BRIDGES

Was a County Staff/Representative present at meeting? ~~NO~~ LIZ GONZALES (Name)

PUBLIC COMMENT:

Name	Site Neighbor?		Issues / Concerns (suggested changes)
	YES	NO	
<i>JB</i>			

LUAC AREAS OF CONCERN

Concerns / Issues (e.g. site layout, neighborhood compatibility; visual impact, etc)	Policy/Ordinance Reference (If Known)	Suggested Changes - to address concerns (e.g. relocate; reduce height; move road access, etc)

ADDITIONAL LUAC COMMENTS

REASON FOR "AFTER THE FACT" PERMIT?
 - OWNER UNAWARE THAT PERMIT WAS REQUIRED.

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SEP 16 2011

**MONTEREY COUNTY
 PLANNING & BUILDING
 INSPECTION DEPT.**

RECOMMENDATION :

Motion by STOCK (LUAC Member's Name)

Second by LIEZKE (LUAC Member's Name)

Support Project as proposed

Recommend Changes (as noted above)

Continue the Item

Reason for Continuance: _____

Continued to what date: _____

AYES: DEWAR, VERBANEC, CANEER, SZABO, STOCK, LIEZKE

NOES: φ

ABSENT: GETREU

ABSTAIN: φ

EXHIBIT F
READ (PLN100670)
AMENDED NEGATIVE DECLARATION

County of Monterey
 State of California
NEGATIVE DECLARATION

FILED
 MAY 08 2013
 STEPHEN L. VAGNINI
 MONTEREY COUNTY CLERK
 DEPUTY

Project Title:	Read – Bluff Stabilization/Erosion Control Fascia (after the fact)
File Number:	PLN100670
Owner:	Richard Read
Project Location:	3158 Seventeen Mile Dr, Pebble Beach
Primary APN:	008-419-013-000
Project Planner:	Ramon Montano
Permit Type:	Combined Development Permit
Project Description:	Combined Development Permit as an after-the-fact permit consisting of: 1) a Coastal Development Permit for development and for the permanent installation of a bluff stabilization/erosion control fascia along the uppermost portion of a bluff designed to prevent wave attack from eroding the terrace deposits and overlying soils. The artificial rock fascia is designed to match the natural contour of the shoreline and the existing granite bedrock in texture and color; 2) A Coastal Development Permit to allow development within 100 feet of environmentally sensitive habitat; 3) a Coastal Development permit to allow development on slopes of 30% or greater; and 4) a Coastal Development Permit for development within 750 of a known archaeological resource.

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 Planning Commission
Responsible Agency:	County of Monterey
Review Period Begins:	May 9, 2013
Review Period Ends:	June 10, 2013

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

MONTEREY COUNTY

RESOURCE MANAGEMENT AGENCY – PLANNING DEPARTMENT
168 WEST ALISAL, 2ND FLOOR, SALINAS, CA 93901
(831) 755-5025 FAX: (831) 757-9516



NOTICE OF INTENT TO ADOPT A NEGATIVE DECLARATION MONTEREY COUNTY PLANNING COMMISSION

NOTICE IS HEREBY GIVEN that the Monterey County Resource Management Agency – Planning Department has prepared a draft Negative Declaration, pursuant to the requirements of CEQA, for a Combined Development Permit, Read application file number PLN100670 at location (APN: 008-491-013-000) (see description below). The project involves an after the fact permit to allow the Bluff Stabilization Control Fascia to remain with an environmental assessment to determine the potential for significant impacts to the environment.

The Negative Declaration and Initial Study, as well as referenced documents, are available for review at the Monterey County Resource Management Agency – Planning Department, 168 West Alisal, 2nd Floor, Salinas, California. The Negative Declaration and Initial Study are also available for review in an electronic format by following the instructions at the following link: <http://www.co.monterey.ca.us/planning/docs/environmental/circulating.htm>.

The Planning Commission will consider this proposal at a meeting on July 10, 2013 at 9:00 am in the Monterey County Board of Supervisors Chambers, 168 West Alisal, 2nd Floor, Salinas, California. Written comments on this Negative Declaration will be accepted from May 9, 2013 to June 10, 2013. Comments can also be made during the public hearing.

Project Description: Combined Development Permit as an after-the-fact permit consisting of: 1) a Coastal Development Permit for development and for the permanent installation of a bluff stabilization/erosion control fascia along the uppermost portion of a bluff designed to prevent wave attack from eroding the terrace deposits and overlying soils. The artificial rock fascia is designed to match the natural contour of the shoreline and the existing granite bedrock in texture and color; 2) A Coastal Development Permit to allow development within 100 feet of environmentally sensitive habitat; 3) a Coastal Development permit to allow development on slopes of 30% or greater; 4) a Coastal Development Permit for development within 750 of a known archaeological resource. The property is located at 3158 17-Mile Drive, (Assessor's Parcel Number 008-491-013-000) fronting 17-Mile Drive, Pebble Beach, Del Monte Forest Land Use Plan, Coastal Zone.

We welcome your comments during the 30-day public review period. You may submit your comments in hard copy to the name and address above. The Department also accepts comments via e-mail or facsimile but requests that you follow these instructions to ensure that the Department has received your comments. To submit your comments by e-mail, please send a complete document including all attachments to:

CEOAcomments@co.monterey.ca.us

An e-mailed document should contain the name of the person or entity submitting the comments and contact information such as phone number, mailing address and/or e-mail address and include any and all attachments referenced in the e-mail. To ensure a complete and accurate record, we request that you also provide a follow-up hard copy to the name and address listed above. If you do not wish to send a follow-up hard copy, then please send a second e-mail requesting confirmation of receipt of comments with enough information to confirm that the entire document was received. If you do not receive e-mail confirmation of receipt of comments, then please submit a hard copy of your comments to ensure inclusion in the environmental record or contact the Department to ensure the Department has received your comments.

Facsimile (fax) copies will be accepted with a cover page describing the extent (e.g. number of pages) being transmitted. A faxed document must contain a signature and all attachments referenced therein. Faxed document should be sent to the contact noted above at (831) 757-9516. To ensure a complete and accurate record, we request that you also provide a follow-up hard copy to the name and address listed above. If you do not wish to send a follow-up hard copy, then please contact the Department to confirm that the entire document was received.

For reviewing agencies: The Resource Management Agency – Planning Department requests that you review the enclosed materials and provide any appropriate comments related to your agency's area of responsibility. The space below may be used to indicate that your agency has no comments or to state brief comments. In compliance with Section 15097 of the CEQA Guidelines, please provide a draft mitigation monitoring or reporting program for mitigation measures proposed by your agency. This program should include specific performance objectives for mitigation measures identified (CEQA Section 21081.6(c)). Also inform this Department if a fee needs to be collected in order to fund the mitigation monitoring or reporting by your agency and how that language should be incorporated into the mitigation measure.

All written comments on the Initial Study should be addressed to:

County of Monterey
Resource Management Agency – Planning Department
Attn: Mike Novo, Director of Planning
168 We Alisal St, 2nd Floor
Salinas, CA 93901

Re: READ; File Number PLN100670

From: Agency Name: _____
Contact Person: _____
Phone Number: _____

- ___ No Comments provided
- ___ Comments noted below
- ___ Comments provided in separate letter

COMMENTS: _____

DISTRIBUTION

1. State Clearinghouse (15 CD copies + 1 hard copy of the Executive Summary) – include the Notice of Completion
2. County Clerk's Office
3. California Coastal Commission
4. California Department of Fish and Game (Region 4)
5. Monterey County Water Resources Agency
6. Monterey County Public Works Department
7. Monterey County Parks Department
8. Monterey County Environmental Health Bureau
9. Monterey City Public Library
10. Pacific Grove Public Library
11. Peter Read, Owner
12. John Bridges, Agent
13. The Open Monterey Project
14. LandWatch
15. Property Owners within 300 feet (**Notice of Intent only**)

Distribution by e-mail (Notice of Intent only):

16. U.S. Army Corps of Engineers (San Francisco District Office: Katerina Galacatos: galacatos@usace.army.mil and Paula Gill: paula.c.gill@usace.army.mil)
17. Emilio Hipolito (ehipolito@nccrc.org)
18. United Brotherhood of Carpenters & Joiners (nedv@nccrc.org)
19. Monterey/Santa Cruz Building & Construction (Office@mscbctc.com)
20. Michael Stamp (Stamp@stamplaw.us)
21. Margaret Robbins (MM_Robbins@comcast.net)
22. Michael Weaver (michaelrweaver@mac.com)
23. Tim Miller (Tim.Miller@amwater.com)

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 **AMENDED NEGATIVE DECLARATION**

I. BACKGROUND INFORMATION

Project Title: Read – Bluff Stabilization/Erosion Control Fascia (after the fact)

File No.: PLN100670

Project Location: 3158 Seventeen Mile Drive, Pebble Beach CA

Name of Property Owner: Peter Read

Name of Representative: Fenton and Keller: John Bridges

Assessor's Parcel Number(s): 008-491-013-000

Acreage of Property: 2.33 Acres

General Plan Designation: LDR/Low Density Residential

Zoning District: LDR/2-D (CZ)/ Low Density Residential, 2 acres per unit, Design Control (Coastal Zone)

Lead Agency: Monterey County RMA-Planning

Prepared By: Bob Schubert, Senior Planner

Date Prepared: May 7, 2013 (Amended July 22, 2013)

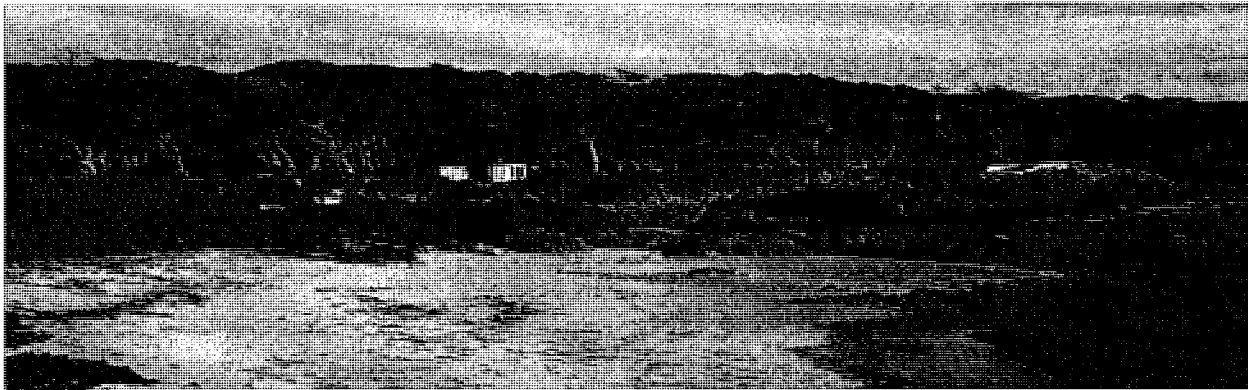
Contact Person: Ramon Montano, Assistant Planner

Phone Number: 831-755-5169

II. DESCRIPTION OF PROJECT AND ENVIRONMENTAL SETTING

A. Description of Project: The project consists of an existing bluff stabilization/erosion control fascia along the uppermost portion of a bluff designed to prevent wave attack from eroding the terrace deposits and overlying soils adjacent to the Read home situated at 3158 Seventeen Mile Drive in Pebble Beach. The fascia consists of an approximately 12 inch thick layer of shotcrete that is virtually the same color and configuration as the original bluff top, and therefore results in no significant or recognizable change in the natural coastal landform. The fascia is designed to both stabilize the unconsolidated and surficial materials at the top of the bluff and prevent wave erosion and overtopping by having a slight recurve at the top. The fascia is founded on a granitic bench with a base elevation of 1- to 12 feet (NGVD-National Geodetic Vertical Datum), 8.5 to 10.5 feet above mean high tide (1.6 ft NGVD), and thus on private property. The lowermost 8 feet of bluff, consisting of granitic bedrock, has not been altered.

The project requires a Combined Development Permit as an after-the-fact permit consisting of: 1) a Coastal Development Permit for development and for the permanent installation of a bluff stabilization/erosion control fascia along the uppermost portion of a bluff designed to prevent wave attack from eroding the terrace deposits and overlying soils. The artificial rock fascia is designed to match the natural contour of the shoreline and the existing granite bedrock in texture and color; 2) A Coastal Development Permit to allow development within 100 feet of environmentally sensitive habitat; 3) a Coastal Development permit to allow development on slopes of 30% or greater; and 4) a Coastal Development Permit for development within 750 of a known archaeological resource.



B. Surrounding Land Uses and Environmental Setting: The Read home is located at 3158 Seventeen Mile Drive in Pebble Beach on the Monterey Peninsula. The parcel slopes gently towards the ocean and is vegetated with mature Monterey Cypress trees. The site is underlain by soil and marine terrace deposits that rest on weathered granodiorite and then granodiorite bedrock. Where exposed in the low bluff along the northern side of the property and also in front of the home, the granitic bedrock appears to be somewhat resistant to erosion although jointing provides weakness zones for weathering and wave attack. The bedrock is also exposed in the intertidal and nearshore zone on both the northern and southern sides of the property.

The site is designated as Low Density Residential (LDR) under the Del Monte Forest Land Use Plan. The property is zoned LDR/2-D (CZ)/ Low Density Residential, 2 acres per unit, Design

Control (Coastal Zone). The Cypress Point parking lot and single family residential homes are located to the north of the site. A single family home is located to the south. Seventeen Mile Drive is to the east. The ocean is to the west.

C. Other public agencies whose approval is required: The Combined Development Permit is subject to appeal to the California Coastal Commission.

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 | <input checked="" type="checkbox"/> | Air Quality Mgmt. Plan | <input type="checkbox"/> |
| Specific Plan | <input type="checkbox"/> | Airport Land Use Plans | <input type="checkbox"/> |
| Water Quality Control Plan | <input type="checkbox"/> | Local Coastal Program-LUP | <input checked="" type="checkbox"/> |

General Plan / Local Coastal Program – LUP: The proposed project was reviewed for consistency with the 1982 Monterey County General Plan, Del Monte Forest Land Use Plan, and Coastal Implementation Plan, Part 5. The General Plan designates the property as “Low Density Residential,” which the principal purpose of the designation is for residential uses. Policy No. 44 of the Del Monte Forest Land Use Plan permits seawalls, groins and other such construction that alters natural shoreline that protect existing structures from potential impacts (20.147.060.B.7 Coastal Implementation Plan). Development is consistent with scenic and visual resources development standards in that development does not significantly adversely impact public view and scenic character (20.147.070 Coastal Implementation Plan).

Staff has reviewed the project and technical documents prepared for the project. Based on the stated review and evidence throughout this document, the project is consistent with County policies and regulations.

IV. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED AND DETERMINATION

A. FACTORS

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

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

Some proposed applications that are not exempt from CEQA review may have little or no potential for adverse environmental impact related to most of the topics in the Environmental Checklist; and/or potential impacts may involve only a few limited subject areas. These types of projects are generally minor in scope, located in a non-sensitive environment, and are easily identifiable and without public controversy. For the environmental issue areas where there is no potential for significant environmental impact (and not checked above), the following finding can be made using the project description, environmental setting, or other information as supporting evidence.

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:

1) Aesthetics: *See Section VI for detailed analysis*

2) Agricultural and Forest Resources: The project site is not designated as Prime, Unique, of Statewide importance, or of Local importance Farmland, and the proposed project would not result in conversion of prime agricultural lands to non-agricultural uses. The site is not under a Williamson Act Contract. The project will have no impacts to agricultural and forest resources. The project parcel is not located near any grazing or farming land, nor any permitted agricultural uses; therefore, there are no impacts to agricultural and forest resources. (Reference IX; 1, 2, 3, 4, 5, 7)

3) Air Quality: The Monterey Bay Unified Air Pollution Control District (MBUAPCD) prepared the Air Quality Management Plan (AQMP) for the Monterey Bay Region. The AQMP addresses the attainment and maintenance of State and Federal ambient air quality standards (AAQS) within the North Central Coast Air Basin (NCCAB). Consistency with the AQMP is an indication of a project's cumulative adverse impact on regional air quality. It is not an indication of project-specific impacts, which are evaluated according to the Air District's adopted thresholds of significance.

The proposed development would not increase population that would exceed the forecast in the AQMP. The bluff protection installation will not create or produce objectionable odors. Impacts based on temporary use of equipment and the three (3) cubic yards of grading required for the installation of bluff protection are considered as minuscule. Therefore, the project will have no impact on implementation of the Air Quality Plan, or expose people to substantial pollutants or objectionable odors. Impacts related to short-term construction activities are considered to be less-than-significant. (Reference IX; 1, 2, 5, 6)

4) Biological Resources: *See Section VI for detailed analysis*

5) Cultural Resources: *See Section VI for detailed analysis*

6) Geology/Soils: *See Section VI for detailed analysis*

- 7) Greenhouse Gas Emission: Greenhouse gases such as Carbon Dioxide and Methane contribute to the “ozone” effect that leads to global warming. Generally, development of an existing lot of record for residential purposes is not a significant contributor to the global problem; however, the project will involve temporary sources that generate minor amounts of greenhouse gas emissions.

The proposed development generated greenhouse gas emission through use of construction equipment and vehicle trips. Use of construction equipment 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 any significance thresholds or significantly contribute to greenhouse gas effects on the environment.

All impacts are anticipated to provide minuscule and nearly immeasurable contributions of greenhouse gases when viewed in connection with the global contributions on a cumulative basis. It is not anticipated that greenhouse gases generated by the proposed project would have a significant impact on the ozone or the environment.

Monterey County does not have an adopted plan for the reduction of greenhouse gases. Preparation of such a plan has begun, but is not yet applicable. Instead, the project is considered in terms of the multiple State and Federal laws passed regarding this subject. It is difficult to implement the goals of the various legislations on a small project-level basis such as this project. Rather climate action plans are being developed, and the Office of Planning and Research (OPR) recommend that each jurisdiction establish their own thresholds of significance. Monterey County has not adopted either a climate action plan or thresholds of significance, but it can be inferred from other agencies, including the California Air Resources Board (ARB) (whose thresholds have been established) and the current environmental practices that the proposed development would not substantially conflict with greenhouse gas reduction planning. GHG sources targeted in such plans generally involve vehicle miles traveled reductions, waste diversions, and technologies such as electric vehicles, and renewable energy sources. Therefore, the project is considered less-than-significant in regards to greenhouse-gas emissions. (Reference IX; 1, 2, 5, 6)

- 8) Hazardous/Hazardous Materials: The project does not involve the transportation, use or disposal of hazardous materials that would constitute a threat of explosion or other significant release that would pose a threat to neighboring properties. There is no storage of large quantities of hazardous materials on site. The project would not involve stationary operations, create hazardous emissions, or handle hazardous materials. The site location and scale have no impact on emergency response or emergency evacuation. The site is not located near an airport or airstrip.

The Low Density Residential (LDR) Zoning District (Chapter 20.14, County Zoning Ordinance) does not allow uses that may contain the storage or use of hazardous materials. The purpose of the LDR Zoning District is to accommodate low density residential uses in rural and suburban areas of the County. There is no evidence of such hazardous uses associated with the proposed project. Therefore, there is no impact due to hazardous uses or materials on-site. (Reference IX; 1, 2, 3, 5, 7)

9) Hydrology/Water Quality: The proposed project will not violate water quality standards or waste discharge requirements nor substantially alter the existing drainage pattern of the site or area. The project will not create a water source or require a water allocation, nor will the constructed bluff stabilization structure create discharge into a river stream or ground water recharge area. The structure is located within a Tsunami Inundation area. No impacts are anticipated as a result of constructing the bluff stabilization fascia as it is designed to protect the shoreline area from normal and storm event wave run up. (Reference IX; 1, 2, 3, 8, 14, 15)

10) Land Use/Planning: The project, as proposed, will not physically divide an established community, nor will it conflict with any applicable land use plan, policy, or regulation of any agency with jurisdiction over the project adopted for the purpose of avoiding environmental effect. The project will not conflict with any applicable habitat conservation plan, or natural community plan.

The property is zoned Low Density Residential [LDR/1-D (CZ)] which principally allows residential uses existing on the property (Chapter 20.14, Zoning Ordinance). The project proposes bluff protection to reduce erosion of the existing bluff located near the existing single family dwelling. The Del Monte Forest Land Use Plan and Coastal Implementation Plan have regulations that permit such construction to reduce erosion hazards near existing dwellings (20.147.060.B.7 Coastal Implementation Plan, Part 5) Bluff protection consists of an artificial rock fascia that will not create an adverse visual impact to visual and scenic resource (20.147.060 & 20.147.070 Coastal Implementation Plan, Part 5). Therefore, there is no impact to land use/planning. (Reference IX; 1, 2, 3, 4, 6)

11) Mineral Resources: No mineral resources have been identified, or would be affected by the project. County Resource Maps indicate no mineral resources are located within the vicinity of the project area. Therefore, the proposed project will have no impacts on minimal resources. (Reference IX; 1, 2, 3, 5, 7)

12) Noise: The installation of bluff protection would not expose people to noise levels that exceed standards and would non-substantially increase ambient noise levels. The project site is not located in the vicinity of an airport or private airstrip. Temporary construction activities will comply with the County's noise requirements, as required in the County Code, Chapter 10.60. Therefore, the proposed project would have no significant impacts related to noise. (Reference IX; 1, 2, 5, 7)

13) Population/Housing: The proposed project would not substantially induce population growth in the area, nor displace structures or people due to construction of the dwelling. The project entails the installation of bluff protection which does not affect population growth, nor cause displacement of structures or people. Therefore, the project will not impact population/housing. (Reference IX; 1, 2, 3, 4, 5, 7)

14) Public Services: The project will have no 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 rations, response times or other performance objectives for any of the public services.

The subject property's residential use and proximity to other residential uses signify that adequate public services exist to properly serve the area. The review by the local Fire District, Park Department, Water Resources Agency, and the Environmental Health Bureau identifies that access and private utilities are sufficient, and the project will not affect public services. Therefore, the proposed project will not have an impact on Public Services. (Reference IX; 1, 2, 3, 5, 7)

- 15) Recreation: The project, as proposed, would not result in an increase in the use of existing neighborhood and regional parks or other recreational facilities causing substantial physical deterioration. The proposed project does not include or require construction or expansion of recreational facilities. No parks, trail easements, or other recreational opportunities would be adversely impacted by the proposed project, based on review of Figure 8 (Public Access Plan) of the Del Monte Forest Land Use Plan and staff site visits. The project would not create significant recreational demands.

The Del Monte Forest Land Use Plan requires that the public's right to shoreline access is ensured by the State Constitution and provisions of the California Coastal Act (Chapter 5 of the Del Monte Forest Land Use Plan). Pursuant to the Public Access Map, Figure 8 of the CLUP, the project is located in area that already provides adequate public access. The project is located within an existing legal lot and will not impact any existing recreational uses in the surrounding area. Therefore, the project will not have a significant impact on recreation. (Reference IX; 1, 3, 5, 7)

- 16) Transportation/Traffic: The project would not change air traffic patterns, or increase traffic levels. It would not substantially increase hazards due to a design failure, nor result in inadequate emergency access or parking capacity. The project also would not conflict with adopted policies, plans, or programs supporting alternative transportation.

The proposed project consists of the installation of bluff protection along an existing bluff. Construction activities will be on-site and will not affect Highway 1 or 17-Mile Drive traffic. The project was reviewed by the Public Works Department, the local Fire District, Park Department, Water Resources Agency, and the Environmental Health Bureau and determined the project will not affect existing traffic. Therefore, the proposed project will have no significant impact to transportation or traffic. (Reference IX; 1, 2, 3, 5, 7)

- 17) Utilities: The project does not propose nor will it affect wastewater facilities on the subject property. The project does not propose construction that will impact stormwater drainage; solid waste storage or landfill capacity. The review by the local Fire District, Park Department, Water Resources Agency, and the Environmental Health Bureau identifies that private utilities are sufficient, and the project will not affect existing utilities. Therefore, the project will not affect utilities. (Reference IX; 1, 2, 3, 5, 7)

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.

Bob Schubert

Signature

July 22, 2013

Date

Bob Schubert

Senior Planner

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 information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on project-specific screening analysis).
- 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		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a)	Have a substantial adverse effect on a scenic vista? (Source: 1, 2, 3, 7, 16)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? (Source: 1, 2, 3, 7, 16)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c)	Substantially degrade the existing visual character or quality of the site and its surroundings? (Source: 1, 2, 3, 7, 16)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? (Source: 1, 2, 3, 7, 16)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion/Conclusion/Mitigation:

The proposed seawall to protect the bluff adjacent to the Read residence is not within the viewshed or any vantage point of 17-mile drive, thereby preserving the existing visual quality of the surrounding environment. The project would not damage scenic resources, introduce a new source of substantial light, or glare.

The Coastal Act requires that scenic and visual resources be protected by minimizing landform alteration, and by site design and development visually compatible with the character of the surrounding areas. Del Monte Forest LUP policies also require that new development not detract from scenic shorelines and that structures be subordinate to and blended into the environment, using appropriate materials to achieve that effect (LUP Policy #56). The constructed fascia was created in a manor which blends the structure completely with the surrounding rock at the base of the bluff and appears to be a natural feature of the existing bluff.

The project would be consistent with LUP Policy #56 because the visual impacts as seen from the ocean would be minimized by the artificial rock fascia design which uses stone fascia, which was constructed of concrete, colored and texturized to match adjacent bluff color, texture, and stratigraphy, and aesthetically blend into the surrounding area and so minimize potential visual impacts. The artificial rock fascia has been utilized in similar projects in the County. In addition, the fascia located on a private beach with no public access would not be visible to the Cypress Point public parking area and vista point due to the tree location below the bluff top. The project is consistent with DMF LUP Policy # 84 requiring development fronting 17-Mile Drive to maintain an adequate natural buffer by preserving the screening tree.

1(a), (b), (c): Less Than Significant.

Previously, a permit to protect a Cypress tree on the bluff was approved. It provides several important benefits in addition to its scenic value. It provides a partial screen between visitors to the Otter Cove parking area and the structures on the Read property, and it also provides a partial buffer to the harbor seals that haul out on the beach below the parking lot at Otter Cove.

The project consists of a bluff stabilization/erosion control fascia consisting of an approximately 12 inch thick layer of shotcrete that is virtually the same color and configuration as the original bluff top, and therefore results in no significant or recognizable change in the natural coastal landform. The fascia is designed to both stabilize the unconsolidated and surficial materials at the top of the bluff and prevent wave erosion and overtopping by having a slight recurve at the top. The type of rock being used is from SIMROCK. SIMROCK has recently built several soil nail walls along the 17 Mile Drive and along the Pebble Beach Golf Course that are virtually indistinguishable from the natural granitic rock in those locations. This bluff stabilization would be a very naturally looking extension of the existing rock, but would be considerable more resistant to erosion than the soil beneath the tree now that forms the bluff. The proposed engineered berm around the south side of the parking lot combined with a grease trap to control and clean runoff before it is discharged onto Otter Cove, and bluff stabilization using the textured and colored concrete SIMROCK structure keyed into the existing granitic outcrops on the beach would provide for both long-term protection and improve the habitat value of Otter Cove for the resident harbor seals. The proposed resource protection solution, will significantly improve the present situation, and is in the best interest of all parties and will not be visible or recognizable to the visiting public.

1 (d): No Impact. The project cannot be seen from Highway 1; or from Point Lobos because the structure (bluff stabilization/erosion control fascia) is within the coved area of Otter Cove. The project as proposed will not affect scenic resources such as trees, rock outcroppings, and historic buildings within a state scenic highway. Rock outcroppings are located within the 30 percent sloped areas. The project will not require any lighting.

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? (Source: 1, 2, 3, 4, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? (Source: 1, 2, 3, 4, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? (Source: 1, 2, 3, 4, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use? (Source: 1, 2, 3, 4, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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? (Source: 1, 2, 3, 4, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion/Conclusion/Mitigation:
(See Section VI, Evidence No. 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? (Source: 1, 2, 5, 6)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? (Source: 1, 2, 5, 6)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? (Source: 1, 2, 5, 6)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in significant construction-related air quality impacts? (Source: 1, 2, 5, 6)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Expose sensitive receptors to substantial pollutant concentrations? (Source: 1, 2, 5, 6)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Create objectionable odors affecting a substantial number of people? (Source: 1, 2, 5, 6)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion/Conclusion/Mitigation:
(See Section VI, Evidence No.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: 15, 22)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or US Fish and Wildlife Service? (Source: 15, 22)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4. BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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, 7, 15, 22)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? (Source: 1, 7, 15, 22)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? (Source: 1, 3, 4, 7, 15, 22)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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, 7, 15, 22)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion/Conclusion/Mitigation:

Biological Resources 4 (a, b, d, e, f) – Less Than Significant. Generally, where extensive sections of sandy bluffs are proposed for armoring, there is potential that the loss of sand from the previously eroding bluffs could have an impact on the beach over time. However, a wide sandy beach does not front the section of protected bluff in front of the Read residence. A portion of this area is fronted by a cove eroded into granite about 50 feet across. Granite outcrops form the rear and both sides of the cove as well as most of the intertidal zone. There is a very small pocket beach on the southern end of the cove about 25 feet wide. This beach consists of a mixture of granite boulders, cobbles, gravel and very course-grained sand. Most of the sand moves offshore in the winter months, and sediment in the small cove is dominated by boulders, cobbles and gravel (Source 15, page 25).

Otter Cover to the north is a broader, sandier beach, which is used by harbor seals as a haul out and pupping area, but it is sandy, has a significant sub-areal portion that is suitable and protected for these marine mammals. Virtually every high tide year around inundates the small cove fronting the area proposed for protection, which combined with the boulders and cobbles, make this an unsuitable haul out area for the seals (Source 15, page 26).

According to the biologist, seasonally, (late March through late June or early July), Otter Cove transforms to become a pupping and basking habitat used by a protected population of Common or Harbor Seals, *Phoca vitulina*. The seals, a group of species' *California Stock*, annually

occupy the northerly broad sandy beach that is distant and away from view of the faciated cliff surface. It is unlikely that the installation of the facia would have disturbed the seal's pupping and rearing; and the outcome of the completed facia does not affect ongoing seal occupation and reproduction (Source 22).

The substrate at the base of the cliff (i.e., where workers would have staged to build the facia, likely with scaffolding), is composed of bedrock, small boulders and cobble; the area is neither vegetated nor colonized with terrestrial or marine biota. The rocky base appears to be above mean high tide; the cliff and facia are above the level of MHW (Source 22).

The area above the protected bluff is covered with nonnative and invasive iceplant including at least two species, *Carpobrotus chilensis* and *Carpobrotus edulis*. The two species possibly intergrade onsite as they do elsewhere in Pebble Beach. The iceplant exclusively dominates vegetation cover across the span of the facia, and the same dense matting extends back toward the residence for 45-55 feet. The biologist has determined that the area where the facia was constructed was covered exclusively with iceplant at the time the facia was applied to the cliff face (Source 22).

The biologist concludes that process of constructing and the final result of the facia application over the eroding cliff face was well done, is visually and texturally apropos, and remains in solid condition. The project does not then nor does it now threaten to pose any adverse effects on local native plantlife or wildlife, terrestrial or marine (Source 22).

Biological Resources 4 (c) – No Impact. The site does not support any federally protected wetlands.

5. CULTURAL RESOURCES	Less Than Significant			
	Potentially Significant Impact	With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5? (Source: 1, 2, 3, 4, 5, 7, 25)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5? (Source: 1, 2, 3, 5, 25)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? (Source: 1, 2, 5, 25)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries? (Source: 1, 2, 3, 5, 25)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion/Conclusion/Mitigation:

According to the Monterey County Geographic Information System, the project site is identified as an area of high archaeological sensitivity. The parcel is also located within 750 feet of a

known archaeological source. Pursuant to Section 20.146.080 of the Monterey County Coastal Implementation Plan, Part 5, three (3) previous archaeological reports for the construction of the main dwelling were submitted evaluating the potential for significant archaeological resources on-site and the potential for impacts to these resources as a result of the project (LIB070604): Preliminary Cultural Resources Reconnaissance was prepared by Archaeological Consulting on May 8, 1987; Secondary Archaeological Testing Report was prepared by Archaeological Consulting on July 27, 1987; and a letter was prepared by Archaeological Consulting on August 17, 1991

(b) Less Than Significant Impact:

According to a letter prepared by Gary Breschini of Archaeological Consulting, dated August 17, 1991, the reports prepared in 1987 indicated the property contains resources which represent a Late Period Coastal Shellfish Processing site (CA-MNT-1084). Resources discovered consisted primarily of shellfish remains (99.89%). Artifacts were limited to a small number of fire-altered granite cobbles (0.11%). The letter concludes that though the site produced significant data, the limited temporal span and the small number of artifacts and other cultural remains suggests that the research potential of the site may have been largely exhausted by previous investigations. The letter recommends that projects on the site shall not be delayed for archaeological reasons. However, due to the possibility that a few significant artifacts may be discovered during grading activities, the following condition shall be applied to all projects on the property:

“A qualified archaeological monitor shall be present during any grading, trenching, or earth-altering activities. The monitor shall be allowed to temporarily halt construction should any significant finds be made until suitable mitigation measures can be formulated and implemented.”

(a), (c), (d): No Impact:

According to the Monterey County Geographic Information System, the property does not contain structural historical resources, nor is the property and structures eligible for listing in any Federal, State or Local register of historical resources. According to previous archaeological and geological reports prepared for the property, no unique paleontological resource or human remains were discovered or likely to be encountered.

6. GEOLOGY AND SOILS		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
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? (Source:) Refer to Division of Mines and Geology Special Publication 42.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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, 7, 9, 15, 16, 24)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction? (Source: 1, 2, 3, 7, 9, 15, 16, 24)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides? (Source: 1, 2, 3, 7, 9, 15, 16, 24)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil? (Source: 1, 2, 3, 7, 9, 15, 16, 24)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? (Source: 1, 2, 3, 7, 9, 15, 16, 24)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Chapter 18A of the 2007 California Building Code, creating substantial risks to life or property? (Source: 1, 2, 3, 7, 9, 15, 16, 24)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? (Source: 1, 2, 3, 7, 9, 15, 16, 24)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion/Conclusion/Mitigation:

6 a (i), (ii), (iii), (iv): No Impact.

The project site lies in an area identified by the Monterey County Geographic Information System as a geologic II seismic sensitivity zone. Pursuant to Section 20.146.080 of the Monterey County Coastal Implementation Plan, regardless of a parcel’s seismic hazard zone, a geologic report shall be required for any development project within 50 feet of the face of a cliff or bluff or within the area of a 20 degree angle above horizontal from the fact of a cliff, whichever is greater.

6 (b), (c), (d), (e): Less Than Significant Impact.

Evaluation of Erosion Threats. Section 20.147.060(B)(7) of Part 5 of the Coastal Implementation Plan (IP) and Policy 44 in the Del Monte Forest Land Use Plan only permit shoreline protection when it is required to protect existing structures in danger from erosion, when designed to mitigate for adverse impacts on local shoreline sand supply, and when no other less-environmentally damaging alternatives are feasible. This IP also requires that existing structures be “substantial structures,” such as a primary residence, a major road, or a significant

facility or access way used by the public. The existing single family dwelling is a substantial structure in the project area that would be protected by the project.

Section 20.147.060.E.2 of the CIP establishes the approval standard for shoreline protection as being circumstances where such protection is determined to be “*necessary by a qualified civil engineer versed in shoreline protection to protect existing development.*” A Geologic Report Focused on Wave Impact Hazards, Coastal Bluff Erosion, and Shoreline Protection on the Read Property dated August 2011 was prepared by Gary Griggs, Consulting Coastal Geologist. The report addresses the process of coastal erosion/bluff retreat, documents the rates and uncertainties involved, summarizes previous coastal erosion investigations and rates, and discusses the influences of future sea-level rise, changing wave and climate and historic extreme events, as well as existing and future risks to the Read home.

At its closest point, the Read home is approximately 45 feet from the bluff edge. Bluff erosion rate based on historic areal photographs average about 0.5 ft/yr. The first erosion study of the site was conducted in 1987. An erosion study of the site in 2004 concluded that between five and eight feet of erosion took place at the site during this 17 year interval.

However, bluff erosion is a very episodic process and applying an average annual erosion rate does not address the episodic nature of the erosion process or the extreme events. Extreme events can have impacts and produce erosion that is far greater than the average annual rate. This was documented in the Geologic Report where high tides and waves overtopped the bluff on January 4-5, 2008, stripping off the vegetation and overturning a heavy bench and statue that was set back 20 feet from the bluff edge, pushing it landward several feet. Some of the bluff also eroded and those soils were washed inland to the edge of the Read home.

In addition, sea level is expected to rise at an increasing rate. There is considerable discussion in the Geologic Report regarding the increasing risk posed by a continuing rise in sea level, combined with and considering that extreme events have already brought ocean water and eroded bluff material to the front of the Read home. There is a clear risk from extreme events that will only increase in the future given the observed trends in sea level rise.

When the Read house was approved in 1993 it was set back from the bluff based upon the applicable minimum 50 year life criteria (as required by a previous LUP policy). Location of the house further back on the property was not approved due to the location of protected sensitive (indigenous) Monterey Cypress habitat. The applicant has submitted a letter from an architect indicating that the Read home was constructed to have an economic life of over 200 years based on the use of concrete and granite stone with anti-corrosive steel reinforcing. The exterior of the house has a complete granite covering and a slate roof. In addition to the Monterey Cypress forest constraint, the house is situated on the lowest section of coastal bluff along 17 Mile Drive and has a history of serious wave attack and consequent bluff erosion.

The Coastal Commission submitted a letter commenting on the Initial Study which states that the Commission’s long practice has been to evaluate the immediacy of any threat in order to make a determination as to whether an existing structure is “in danger” and has generally interpreted “in danger” to mean that an existing structure would be unsafe to occupy within the next two or three

storm season cycles (generally, the next few years) if nothing were to be done. The Coastal Commission concluded that, based on an estimated rate of erosion of 0.25 feet/year, the Read home is not “in danger” from erosion as defined by the LCP or Coastal Act. It should be noted that the erosion rate of 0.25 feet/year that the Coastal Commission based this conclusion on was incorrect (the correct rate is 0.50 feet/year which has subsequently been corrected in the Initial Study). Staff has discussed this with the Coastal Commission staff and they will preparing a revised comment letter that will be presented at the Planning Commission hearing.

The Geologic Report concludes that there is a clear risk from extreme events that will only increase in the future given the observed trends in sea level rise and wave heights. Extreme events have brought ocean water to the front of the Read home. As such, the project is permissible under Section 20.147.060)(B)(7) of Part 5 of the Coastal IP and Policy 44 in the Del Monte Forest Land Use Plan.

Potential Reduction of Sand Supply. There is a 25-foot wide pocket beach fronting the section of eroding bluff proposed for protection in front of the Read home. Granite outcrops form the rear and both sides of the cove as well as most of the intertidal zone. This beach consists of a mixture of granite boulders, cobbles, gravel, and very coarse-grained sand. Most of the sand moves offshore in the winter months, and sediments in the small cove are dominated by boulders, cobbles, and gravel.

The determination of the average amount of beach compatible material provided by erosion of the bluff-top terrace deposits and soils proposed for protection is as follows:

80 feet of bluff frontage x 6 feet (average height of bluff top proposed for protection) x 0.50 ft/yr (average erosion rate) x 26% (percent of beach compatible sand) = 2.3 cubic yards/year of beach compatible sand.

According to the Geologic Report, the granitic cobbles and boulders, which form most of the material in the small cove below the site do not appear to migrate but remain in place for years. Finer-grained material coming from bluff erosion does not remain on this beach due to the high wave energy so the small amount of sand contributed by bluff failure does not significantly contribute to this small rocky cove. In conclusion, the potential reduction in sand supply at the pocket each fronting the site is less than significant.

An Evaluation of Erosion Threats at Otter Cove for 3158 17 Mile Drive, Pebble Beach was prepared by Gary B. Griggs, Certified Engineering Geologist, dated October 23, 2006. The coastline at this location along the 17 Mile Drive consists of a low bluff underlain by coastal marine terrace deposits that rest on granitic bedrock. The lowest portion of the bluff is just a few feet above the elevation of the back beach in the middle of Otter Cove but increases in height to the west towards the parking lot and also to the east where it reaches a maximum elevation of about 14 feet along the eastern side of the Read home. The surficial terrace deposits consist of a mixture of clay, silt and sand as well as coarser material including rounded cobbles. The sediments are uncemented and are susceptible to erosion, whether from terrestrial runoff or wave attack.

The soil has been seriously eroded in recent winters due to a combination of parking lot runoff and wave run-up. Runoff from the south side of the parking lot previously was uncontrolled and simply flowed off the asphalt over the low bluff onto Otter Cove Beach. Because the Otter Cove beach is a haul out and pupping area for harbor seals, it is in the best long term interest of the health of the seals to install a drop inlet with a grease trap. In order to remedy the runoff and water quality issues, a cooperative resource protection project to install a more effective curb, a drop inlet, and grease trap, was implemented with the previous Cypress tree project.

The proposed bluff stabilization would be a very naturally looking extension of the existing rock, but would be considerable more resistant to erosion than the soil beneath the tree now that forms the bluff. The proposed engineered berm around the south side of the parking lot combined with a grease trap to control and clean runoff before it is discharged onto Otter Cove, and bluff stabilization using the textured and colored concrete SIMROCK structure keyed into the existing granitic outcrops on the beach would provide for both long term protection and improve the habitat value of Otter Cove for the resident harbor seals. The proposed resource protection solution, will significantly improve the present situation, and is in the best interest of all parties and will not be visible or recognizable to the visiting public.

A Further Analysis of Potential Impact of Bluff Stabilization on Loss of Beach Sand at Otter Cove was prepared by Gary B. Griggs, Certified Engineering Geologist dated September 14, 2007. It analyzes the issue of the significance of the potential reduction of sand supply due to bluff stabilization. In order to determine the amount of beach compatible sand that would be supplied by continued retreat of the low bluff at the rear of Otter Cove, the following is needed: a) height of the bluff; b) lineal frontage of bluff that is proposed for protection; c) average annual rate of erosion of the bluff; and d) percentage of beach compatible sand in the bluff materials.

The average height of the low bluff that has eroded is about 6 feet. A 2004 topographic survey of the Read property fronting the house was compared to an older survey (1987). The retreat of the bluff top due to storm wave runup over this 16 year period (1987-2004) ranged from 5 feet on the east side of the house to 8 feet on the west side. These translate to average annual erosion rates of the weak terrace deposits of 0.3 to 0.5 ft/year. These measurements, however, were taken on the portion of the property that is immediately in front of the house where there is no beach to reduce the wave runup and the waves under high tide and storm conditions break directly onto the low granitic bluff and terrace deposits. A reasonable value for long term bluff retreat in the vicinity of the proposed wall is approximately 0.25 ft/yr. The terrace deposits being eroded are about six feet thick and consist of a mixture of about 2 feet of weathered and decomposing granite. Two representative composite samples of these materials were taken and analyzed for their grain size distribution. A composite beach sand sample was also collected and a grain size distribution determined. The beach sample was white, moderately sorted coarse grained sand. In contrast, the composite bluff materials were poorly sorted, orange to very dark brown silty sand. An average of 50% of the bluff materials, however were beach compatible.

Multiplying these factors: 40 lineal feet of bluff X 6 feet in height X 0.25 ft/yr erosion rate X 50% beach compatible sand = 30 cubic feet/yr or 1.1 yd/year for beach compatible sand, on average, that would be added to the beach from erosion of the portion of low bluff proposed for stabilization.

It is important to evaluate the significance of this volume of sand. The Otter Cove beach was determined to contain 3000 yards. Thus the average annual contribution is 1.1 cubic yards of sand to the beach that would be eliminated by the stabilization of this low bluff which is 0.036% of the total Otter Cove beach volume, or less than a tenth of a percent.

The average amount of beach compatible sand (1.1 yards/yr) that would be prevented reaching Otter Cove as a result of the bluff stabilization project proposed is insignificant, would be undetectable, and is far less than seasonal variations in beach volume of the errors in the calculations of total beach volume.

7. GREENHOUSE GAS EMISSIONS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? (Source: 1, 2, 5, 6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? (Source: 1, 2, 5, 6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion/Conclusion/Mitigation:
(See Section VI, Evidence No. 7 for discussion)

8. HAZARDS AND HAZARDOUS MATERIALS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? (Source: 1, 2, 3, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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? (Source: 1, 2, 3, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? (Source: 1, 2, 3, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? (Source: 1, 2, 3, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

8. HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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? (Source: 1, 2, 3, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? (Source: 1, 2, 3, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? (Source: 1, 2, 3, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? (Source: 1, 2, 3, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion/Conclusion/Mitigation:
(See Section VI, Evidence No. 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? (Source:)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? (Source:)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial <u>erosion</u> or <u>siltation</u> on- or off-site? (Source:)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

9. HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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 <u>flooding</u> on- or off-site? (Source:)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? (Source:)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Otherwise substantially degrade water quality? (Source:)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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? (Source:)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows? (Source:)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? (Source:)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow? (Source:)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion/Conclusion/Mitigation:
(See Section VI, Evidence No. 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, 4, 6)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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, 6)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

10. LAND USE AND PLANNING	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
c) Conflict with any applicable habitat conservation plan or natural community conservation plan? (Source: 1, 2, 3, 4, 6)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion/Conclusion/Mitigation:
(See Section VI, Evidence No. 10 for discussion)

11. MINERAL RESOURCES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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? (Source: 1, 2, 3, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? (Source: 1, 2, 3, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion/Conclusion/Mitigation:
(See Section VI, Evidence No. 11 for discussion)

12. NOISE	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
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? (Source: 1, 2, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? (Source: 1, 2, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? (Source: 1, 2, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? (Source: 1, 2, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

12. NOISE

Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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? (Source: 1, 2, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? (Source: 1, 2, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion/Conclusion/Mitigation:
(See Section VI, Evidence No. 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)? (Source: 1, 3, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? (Source: 1, 3, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? (Source: 1, 3, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion/Conclusion/Mitigation:
(See Section VI, Evidence No. 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? (Source: 1, 2, 3, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Police protection? (Source: 1, 2, 3, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Schools? (Source: 1, 2, 3, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Parks? (Source: 1, 2, 3, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Other public facilities? (Source: 1, 2, 3, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion/Conclusion/Mitigation:
(See Section VI, Evidence No. 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? (Source: 1, 3, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? (Source: 1, 3, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion/Conclusion/Mitigation:
(See Section VI, Evidence No. 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? (Source: 1, 2, 3, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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? (Source: 1, 2, 3, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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? (Source: 1, 2, 3, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? (Source: 1, 2, 3, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access? (Source: 1, 2, 3, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? (Source: 1, 2, 3, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion/Conclusion/Mitigation:
(See Section VI, Evidence No. 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? (Source: 1, 2, 3, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? (Source: 1, 2, 3, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? (Source: 1, 2, 3, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? (Source: 1, 2, 3, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? (Source: 1, 2, 3, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? (Source: 1, 2, 3, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste? (Source: 1, 2, 3, 5, 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion/Conclusion/Mitigation:
(See Section VI, Evidence No. 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, 5, 6, 9, 15, 16 ,23 ,24, 25 (a) & (b)]	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have impacts that are individually limited, but cumulatively considerable? (Source:) ("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, 5, 6, 9, 15, 16 ,23 ,24, 25 (a) & (b)]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? [Source: 1, 2, 3, 5, 6, 9, 15, 16 ,23 ,24, 25 (a) & (b)]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion/Conclusion/Mitigation:

(a) Less than Significant Impact:

Based upon the analysis throughout the initial study it has been determined that the constructed project did not degrade or have the potential to degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels threaten to eliminate a plant or animal community, According to the biologist, the nearby Otter Cove seasonally transforms to become a pupping and basking habitat used by a protected population of Common or Harbor Seals. The seals annually occupy the northerly broad sandy beach that is distant and away from view of the faciated cliff surface. It is unlikely that the installation of the facia would have disturbed the seal's pupping and rearing; and the outcome of the completed facia does not affect ongoing seal occupation and reproduction. The substrate at the base of the cliff is composed of bedrock, small boulders, and cobble; the area is neither vegetated nor colonized with terrestrial or marine biota.

~~The Otter Cove consists of granite outcrops form the rear and both sides of the cove as well as most of the intertidal zone. There is a very small pocket beach on the southern end of the cove in front of the facia that is about 25 feet wide. The beach was determined to contain 3,000 cubic yards of sand. Eroded materials deposited from the eroding bluff average of which only 50% of the bluff materials were beach compatible. Granite outcrops form the rear and both sides of the cove as well as most of the intertidal zone. This beach consists of a mixture of granite boulders, cobbles, gravel and very coarse-grained sand,. Most of the sand moves offshore in the winter months, and sediments in the small cove are dominated by boulders, cobbles and gravel. The granitic cobbles and boulders, which form most of the material in the small cove below the site do not appear to migrate but remain in place for years. The finer-grained material coming from bluff erosion does not remain on this beach due to the high wave energy so the very small amount of sand contributed by bluff failure is of no significance to this small rocky cove. Thus, the average annual contribution is 1.1 cubic yards of sand to the beach that would be eliminated by the stabilization of this bluff which is 0.036% of the total Otter Cover beach volume, or less than a tenth of a percent that would be prevented reaching Otter Cove. As a result, the impacts of the bluff stabilization project proposed are insignificant, and would be undetectable. Therefore the project is found to have a less than significant impact to the environment.~~

(b) and (c) No Impact: The County's review of the constructed Bluff Stabilization/Erosion Control Fascia considered the potential for impacts that may have occurred during the actual construction of the fascia. The County determined that the built structure would have resulted in temporary and short-term environmental effects from project related construction activities and would not have caused substantial adverse effects on human beings, either directly or indirectly ~~and that construction-related impacts.~~ The project is not cumulatively considerable based on actual number of project considered and based impacts associated with sand loss the circumstances of the site would not create any long-term impacts on the local area.

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 PLN100670 and the attached Initial Study / Proposed (Mitigated) Negative Declaration.

IX. REFERENCES

1. Project Application/Plans for PLN100670 Peter Read.
2. 1982 Monterey County General Plan
3. Del Monte Forest Area Land Use Plan/ Coastal Implementation Plan (Part 5).
4. Title 20 of the Monterey County Code (Zoning Ordinance)
5. Monterey County GIS/Accela Permit Database
6. CEQA Air Quality Guidelines, Monterey Bay Unified Air Pollution Control District, Revised February 2008
7. Site Visit conducted by the project planner on November 28, 2012
8. Initial Study Checklist and Mitigated Negative Declaration Prepared by Monterey County Planning Department. Read Tree Protection Structure. File Number PLN060069. Circulated October 2, 2007 to November 1, 2007.
9. Geologic Report Focusing On Coastal Erosion Rates For An Existing Single Family Home And Guest House. 3158 17-Mile Drive, Pebble Beach APN 008-491-014. Nielsen and Associates Engineering Geology and Coastal Consulting. March 4, 2004.
10. Letter from John E. Matt hams-- International Design Group, Jun Siliano, to Bud Carney of California Land Planning, regarding the Peter Read Residence 3158 Seventeen Mile Drive, Pebble Beach dated March 28, 2005
11. Letter from the California Coastal Commission to Peter James Read Jr. regarding 3158 17 Mile Drive Pebble Beach, Unpermitted development (construction of a seawall), dated November 10, 2010.
12. Letter from Peter Read to California Coastal Commission November 22, 2010.
13. Letter from the California Coastal Commission to Peter James Read Jr. regarding 3158 17 Mile Drive Pebble Beach, Unpermitted development (construction of a seawall); your letter dated November 22, 2010, dated December 3, 2010.

14. Letter from Peter Read to Mr. Sharif Traylor, California Coastal Commission Regarding 3158 17 Mile Drive, Pebble Beach, CA (APN: 008-491-013) Dated December 17, 2010.
15. Letter Report from Haro, Kasunich And Associates, Inc to Mr. Peter Read C/o John Bridges Regarding Coastal Engineering and Wave Runup Analysis. Comparison of conditions Affecting Wave Runup Elevations 3158 17 Mile Drive Pebble Beach, dated July 12, 2011.
16. Geologic Report Focused on Wave Impact Hazards, Coastal Bluff Erosion, and Shoreline Protection on the Read Property 3158 17-Mile Drive, Pebble Beach APN: 008-491-14 Monterey County, California by Gary Griggs, Consulting Coastal Geologist, dated August 2011.
17. Letter from Fenton & Keller, John Bridges, Regarding PLN100670 (Read) to Ramon Montano, Monterey County Planning Department, dated August 29, 2012.
18. Memorandum of the California Coast Commission From Jon Van Coops Mapping Program Manager to Dan Carl, Central Coast District Office Manager, regarding Boundary Determination No. 16-2011, Assessors Parcel Number 008-491-013, Monterey County, dated September 19, 2011.
19. E-mail Correspondence from Katie Butler of the California Coastal Commission to Ramon Montano, Monterey County Planning Department, Regarding Read (PLN100670) (Boundary Determination and jurisdiction), Dated September 29, 2011.
20. Letter from Fenton & Keller, John Bridges, Regarding Boundary Determination No. 16-2011, Assessors Parcel Number 008-491-013, Monterey County, to Mr. Jon Van Coops, California Coastal Commission, dated April 20, 2012.
21. Letter from California Coastal Commission, Jonathan Van Coops to Fenton and Keller, John Bridges, regarding Boundary Determination No. 16-2011, Assessors Parcel Number 008-491-013, dated May 25, 2012.
22. Letter from Fenton & Keller, John Bridges, Regarding Boundary Determination No. 16-2011, Assessors Parcel Number 008-491-013, Monterey County, to Mr. Jon Van Coops, California Coastal Commission, dated May 30, 2012.
23. Letter from Jeff Froke, Biologist, Regarding Report and Opinion Concerning Read Residence at Otter Cove, Pebble Beach, CA, to John Bridges, Esq., dated January 11, 2013.
24. Letter from Gary Griggs containing Addendum to Evaluation of Coastal Erosion and Protection Issues at Otter Cove, 3158 17-Mile Drive, Pebble Beach, dated January 19, 2013.
25. Letter from Gary S. Breschini, Ph.D. of Archaeological Consulting (LIB070604), Salinas, CA, dated August 17, 1991; containing prior Archaeological Reports:
 - a) "Preliminary Cultural Resources Reconnaissance of Parcel 008-491-013" prepared by Gary S. Breschini, Ph.D. of Archaeological Consulting, Salinas, CA, dated May 8, 1987; and

- b) "Preliminary Report of Secondary Archaeological Testing at Sysorex Residence, Cypress Point" prepared by Gary S. Breschini, Ph.D. of Archaeological Consulting, Salinas, CA, dated July 27, 1987

IX. ATTACHMENTS

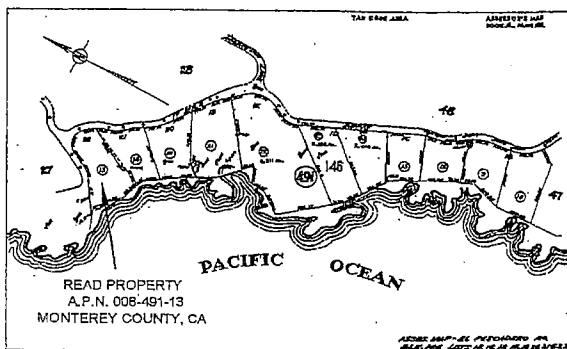
1. As built plans sheet 1-4
2. Photographs 1-3 of existing condition of bluff with as built fascia

16. Geologic Report Focused on Wave Impact Hazards, Coastal Bluff Erosion, and Shoreline Protection on the Read Property 3158 17-Mile Drive, Pebble Beach APN: 008-491-14 Monterey County, California by Gary Griggs, Consulting Coastal Geologist, dated August 2011.
17. Letter from Fenton & Keller, John Bridges, Regarding PLN100670 (Read) to Ramon Montano, Monterey County Planning Department, dated August 29, 2012.
18. Memorandum of the California Coast Commission From Jon Van Coops Mapping Program Manager to Dan Carl, Central Coast District Office Manager, regarding Boundary Determination No. 16-2011, Assessors Parcel Number 008-491-013, Monterey County, dated September 19, 2011.
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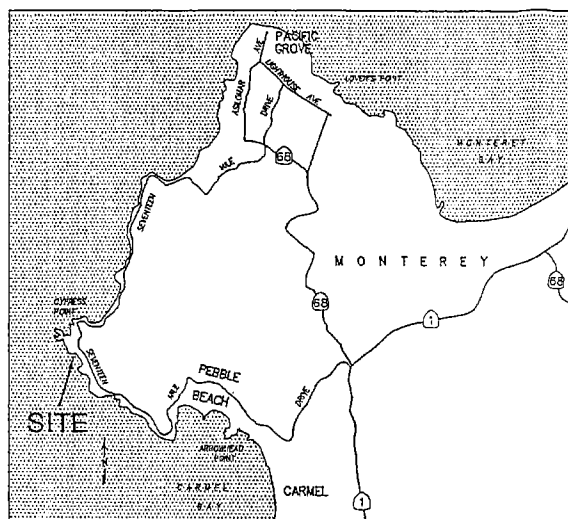
IX. ATTACHMENTS

1. As built plans sheet 1-4
2. Photographs 1-3 of existing condition of bluff with as built fascia

ATTACHMENT I



ASSESSORS PARCEL MAP



VICINITY MAP

PROPERTY OWNER:

JAMES PETER READ
10 Haciendas Road
Orinda, CA 94563

PLAN PREPARERS:

John Kasunich, G.E. 455
Mark Foxx, C.E.G. 1493
HARO, KASUNICH & ASSOCIATES, INC.
116 East Lake
Watsonville, CA 95076
(831)722-4175
(831)722-3202 FAX

PROJECT SURVEYORS:

DUNBAR & CRAIG
1011 Cedar St.
Santa Cruz, CA 95060
(831) 425-7533

SHEET INDEX

- SHEET 1 - TITLE SHEET
- SHEET 2 - AS BUILT BLUFF PROTECTION PLAN
- SHEET 3 - AS BUILT BLUFF PROTECTION CROSS SECTIONS
- SHEET 4 - AS BUILT BLUFF PROTECTION STRUCTURAL NOTES & DETAILS

AS BUILT PLAN SET

RECEIVED

AUG 29 2011

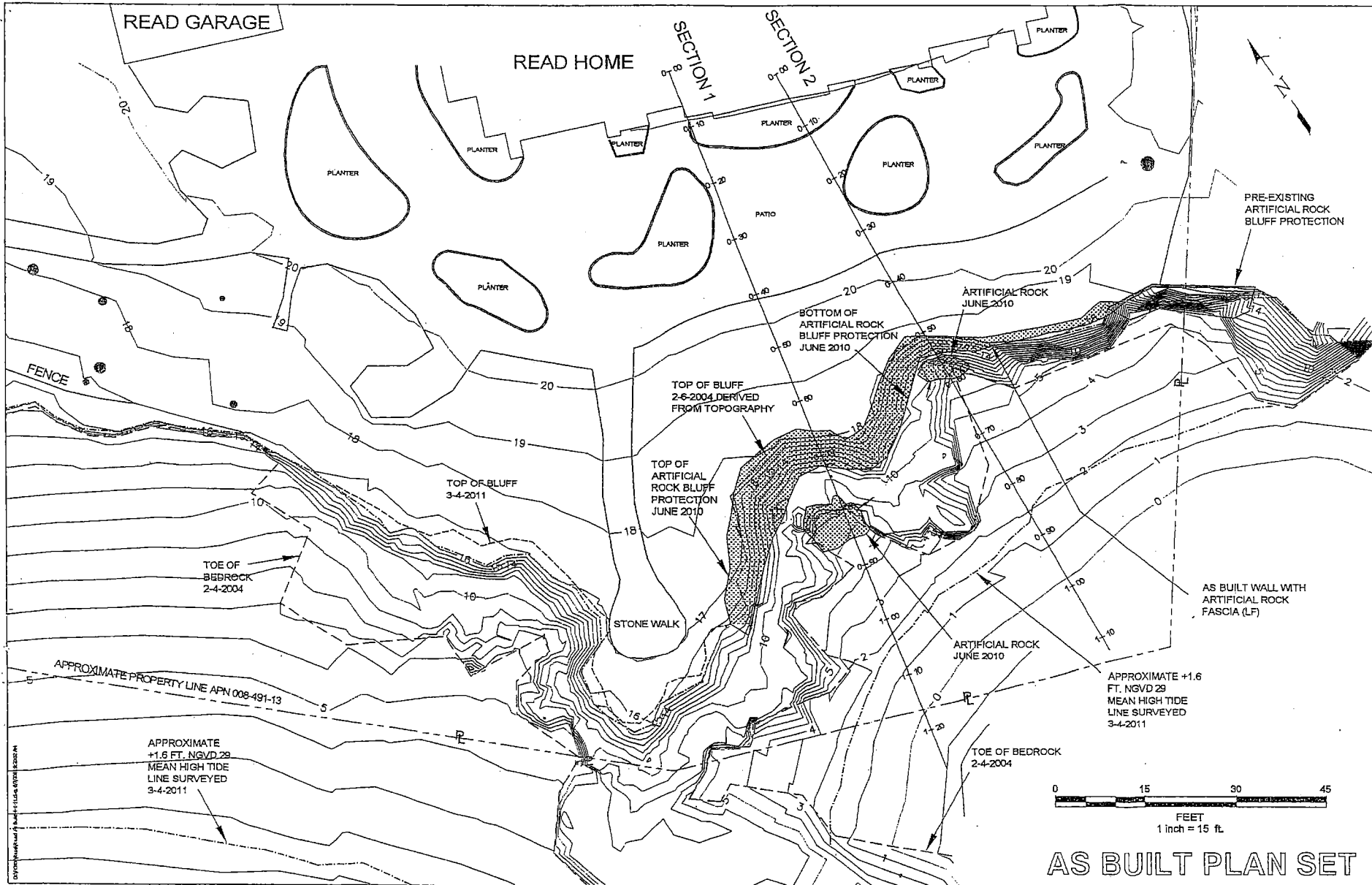
MONTEREY COUNTY
PLANNING & BUILDING
INSPECTION DEPT.

REVISIONS BY

TITLE SHEET
READ PROPERTY AS BUILT COASTAL BLUFF PROTECTION
3158 SEVENTEEN MILE DRIVE, PEBBLE BEACH, CA
MONTEREY COUNTY A.P.N. 008-491-13

HARO, KASUNICH AND ASSOCIATES, INC.
CONSULTING CIVIL, GEOTECHNICAL & COASTAL ENGINEERS
116 EAST LAKE AVE. WATSONVILLE, CA 95076
(831) 722-4175

Date	4/1/11
Scale	NONE
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Sheet	1
	of 4 Sheets



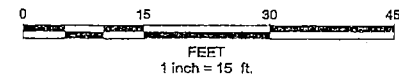
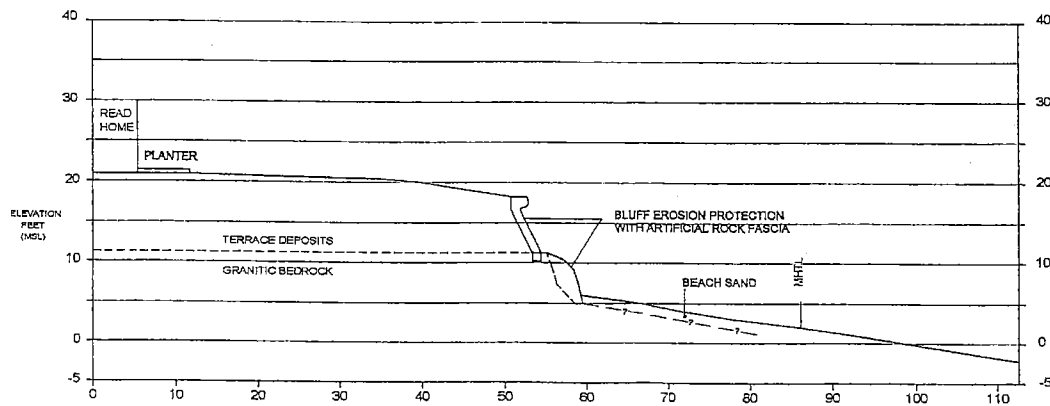
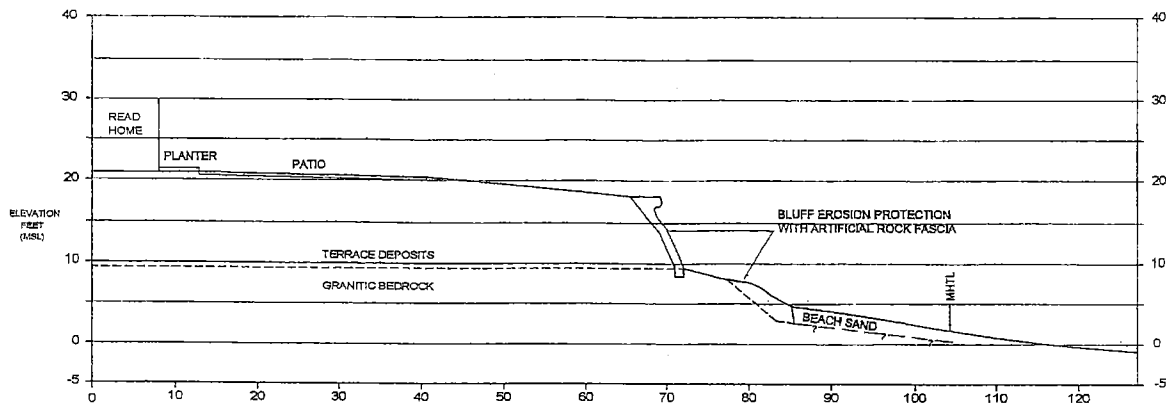
REVISIONS	BY

AS BUILT BLUFF PROTECTION PLAN
READ PROPERTY AS BUILT COASTAL BLUFF PROTECTION
3158 SEVENTEEN MILE DRIVE, PEBBLE BEACH, CA
MONTEREY COUNTY A.P.N. 008-491-13

HARO, KASUNICH AND ASSOCIATES, INC.
 CONSULTING CIVIL, GEOTECHNICAL & COASTAL ENGINEERS
 118 EAST LAKE AVE, WATSONVILLE, CA 95076
 (831) 724-4176

Date	4/1/11
Scale	1" = 15 FT
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Sheet	2 of 4 Sheets

AS BUILT PLAN SET



REVISIONS	BY

AS BUILT BLUFF PROTECTION CROSS SECTIONS
 READ PROPERTY AS BUILT COASTAL BLUFF PROTECTION
 3158 SEVENTEEN MILE DRIVE, PEBBLE BEACH, CA
 MONTEREY COUNTY A.P.N. 008-491-13

HARO, KASUNICH AND ASSOCIATES, INC.
 CONSULTING CIVIL, GEOTECHNICAL & COASTAL ENGINEERS
 116 EAST LANE AVE., HANFORDVILLE, CA 96019 (817) 724-1115

Date: 4/11/11
 Scale: 1" = 15 FT
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 Sheet:

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of 4 Sheets

AS BUILT PLAN SET

STRUCTURAL NOTES & SPECIFICATIONS

1. ALL DETAILS, SECTIONS AND NOTES shown on drawings are intended to be typical and shall apply to similar situations elsewhere, unless otherwise noted.

Check all dimensions in relation to site conditions prior to starting work. The contractor shall coordinate the work of all trades. All discrepancies shall be called to the attention of the structural engineer and shall be resolved before proceeding with the work. During the construction phase, the contractor is responsible for the safety of construction and personnel. Provide adequate shoring and bracing, in accordance with all national, state and local safety ordinances.

2. REINFORCING STEEL shall be ASTM A-615, deformed and need not be epoxy coated. Grade, size and spacing as specified in wall details. Tie wire: 16 ga. annealed wire. All bar laps and reinforcement for horizontal and vertical steel must be spliced with a minimum overlap of 48 bar diameters, unless otherwise noted, but not less than 24". All steel shall be rigidly held in place with approved devices prior to pouring concrete.

Hooks, bends, fabrication and placing shall be in accordance with the "Manual of Standard Practice for Detailing Reinforced Concrete Structure" ACI No. 315-94. Reinforcement as placed shall be protected from salt water mist by providing adequate blanket covering. Remove cover just prior to concrete placement. In case of exposure to salt water, wash steel reinforcement with potable water just prior to concrete placement.

3. STRUCTURAL STEEL shall be in accordance with AISI C "Specification for the Design, Fabrication and Erection of Structural Steel for Buildings" and shall be ASTM A-36. All bolt holes shall be punched or drilled; burning of holes shall not be permitted.

4. CONCRETE

A. STRENGTH:

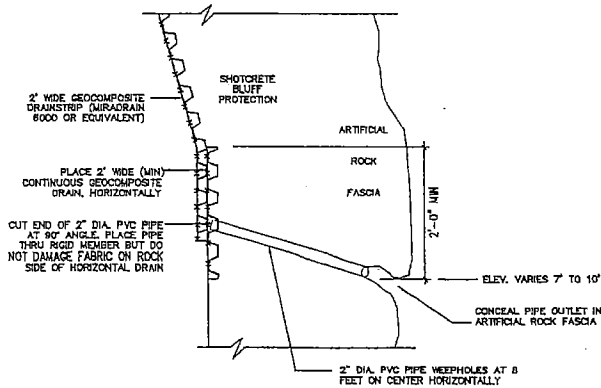
Concrete shall develop a 28-day minimum ultimate compressive strength of 2,500 psi.

B. CONCRETE MIXES:

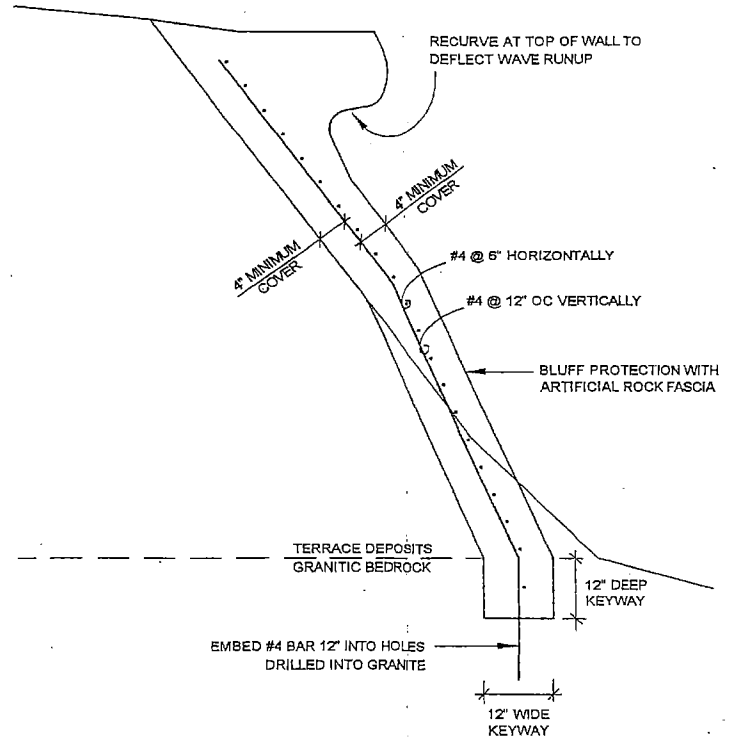
Provide the following:
 Portland Cement: ASTM-A150, type II, 7 sacks/cy, minimum.
 Pozzolan: may be a maximum of 25% of the 7 sacks/cy. of cement.

	RETAINING WALL
STRENGTH	2500 PSI MIN
SACKS OF CEMENT	7 MIN
INTEGRAL COLOR	YES
ACCELERATOR	NOT WITHOUT ENG APPROVAL
AGGREGATE	1/2 INCH MAX
REINFORCING COVER	4 INCH MIN

All concrete shall be in conformance with ASTM C-1116 Type III concrete or shotcrete. Concrete shall be machine mixed, transported and placed in accordance with ACI-304.



SECTIONAL VIEW OF DRAINAGE DETAIL
 SCALE: 1" = 1'-0"



TYPICAL BLUFF PROTECTION SECTION
 SCALE: 1/2" = 1'-0"

AS BUILT PLAN SET

REVISIONS BY

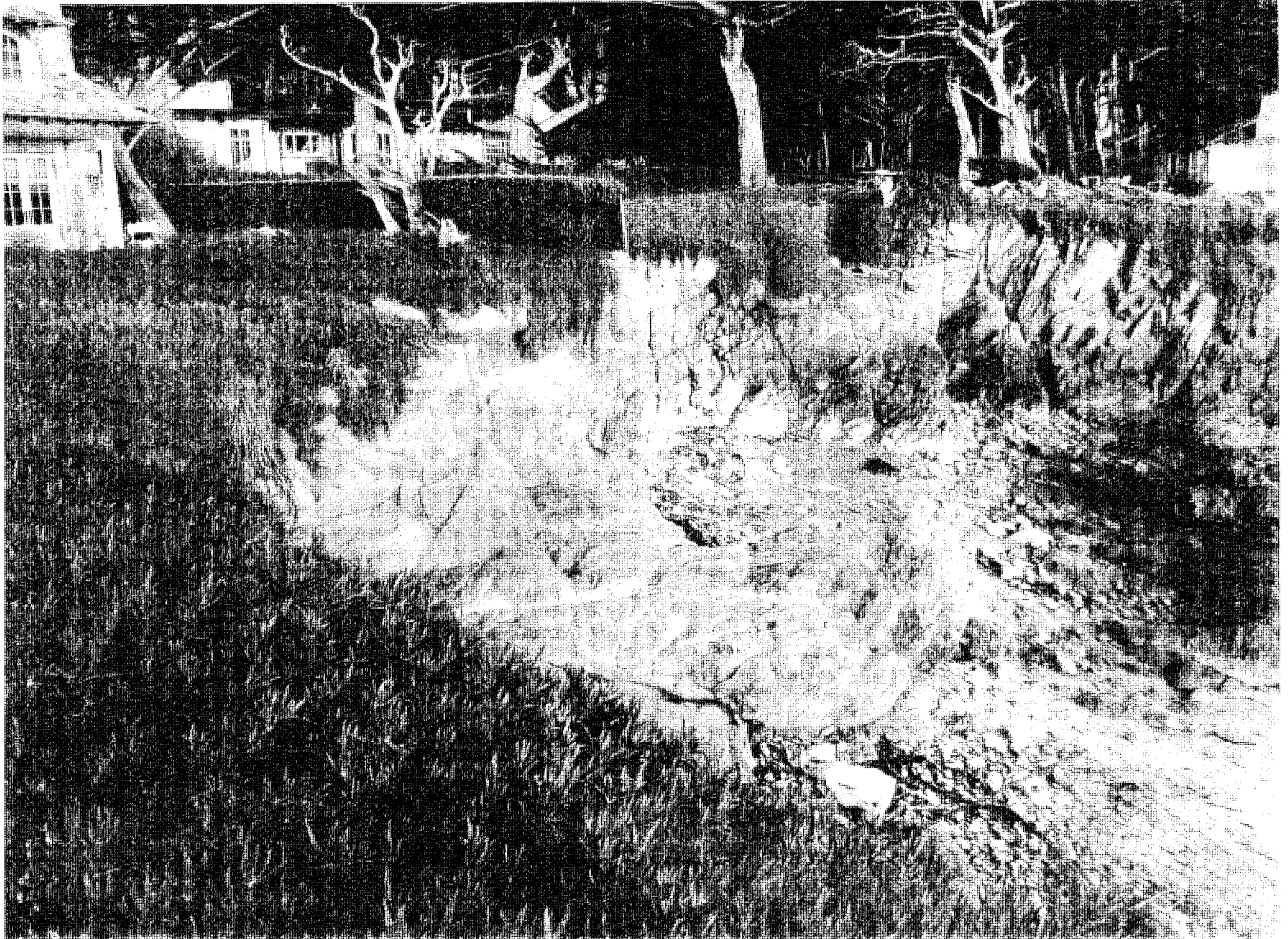
AS BUILT BLUFF PROTECTION STRUCTURAL DETAILS
 READ PROPERTY AS BUILT COASTAL BLUFF PROTECTION
 3158 SEVENTEEN MILE DRIVE, PEBBLE BEACH, CA
 MONTEREY COUNTY A.P.N. 008-491-13

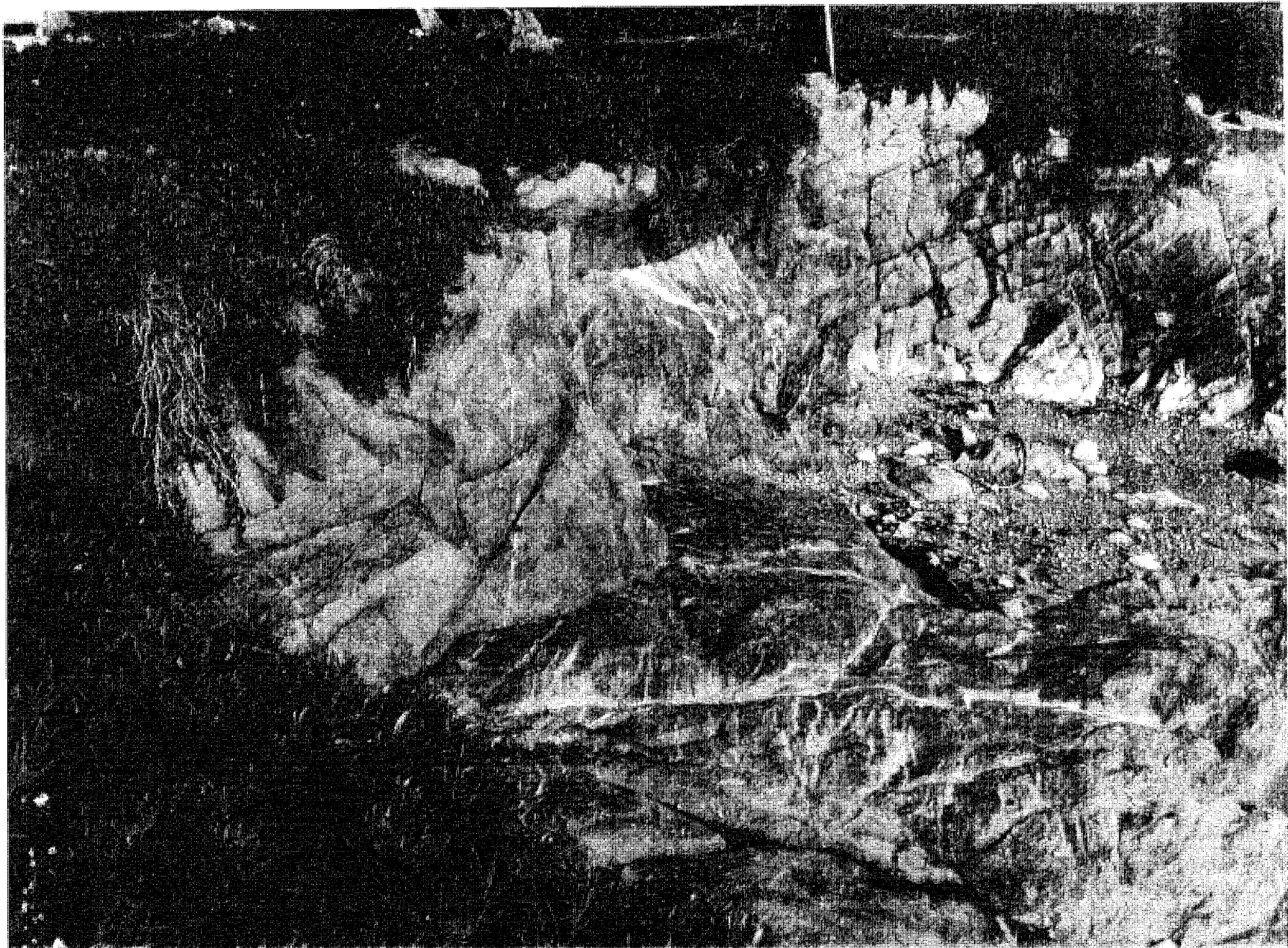
HARO, KASUNICH AND ASSOCIATES, INC.
 CONSULTING CIVIL, GEOTECHNICAL & COASTAL ENGINEERS
 118 EAST LAKE AVE., WATSONVILLE, CA 95070
 (831) 725-1176

Date: 4/1/11
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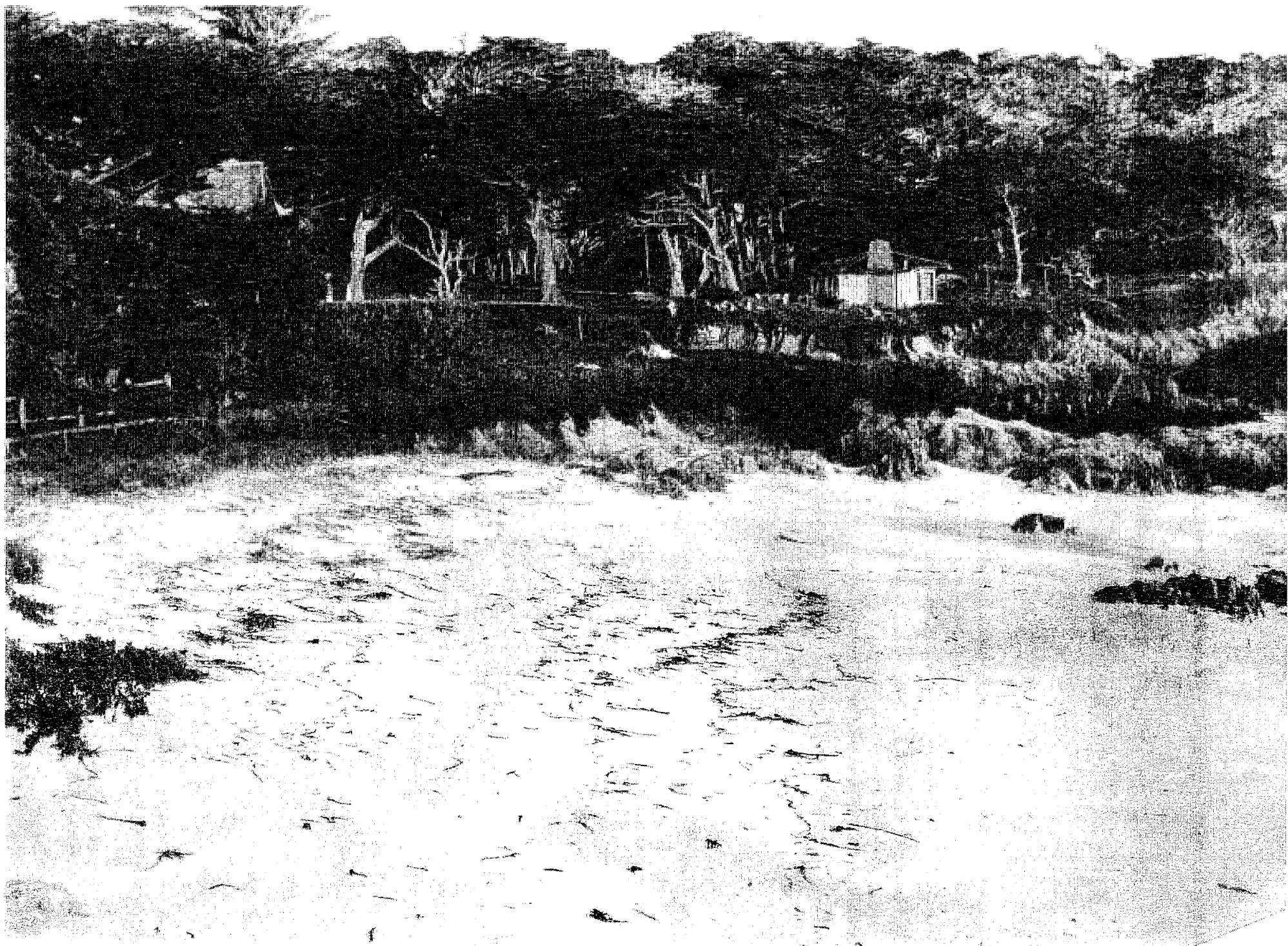
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ATTACHMENT 2





2

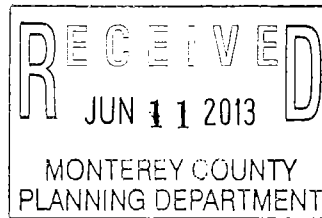


3

EXHIBIT G
READ (PLN100670)
COMMENTS ON NEGATIVE DECLARATION FROM COASTAL
COMMISSION

CALIFORNIA COASTAL COMMISSION

CENTRAL COAST DISTRICT OFFICE
725 FRONT STREET, SUITE 300
SANTA CRUZ, CA 95060
T: (831) 427-4863
F: (831) 427-4877
WEB: WWW.COASTAL.CA.GOV

**June 6, 2013**

County of Monterey
Monterey County Planning Commission
Attn: Ramon Montano
168 Alisal Street, 2nd Floor
Salinas, CA 93901

Subject: Comments on the Negative Declaration and Initial Study for the Read Bluff Stabilization and Erosion Control Project

Dear Mr. Montano:

Coastal Commission staff has reviewed the above mentioned documents. The proposed project consists of an after-the-fact permit to install bluff stabilization and erosion control fascia along a coastal bluff on the Read property located at 3158 17-Mile Drive in the Del Monte Forest area of Pebble Beach. According to the Initial Study, the above mentioned coastal protective devices have been designed to reduce erosion of terrace deposits and overlying soils due to wave action in order to protect the existing single family dwelling on the property. We have the following comments:

The Initial Study states "The project proposes bluff protection to reduce erosion of the existing bluff located near the existing single family dwelling. The Del Monte Forest Land Use Plan and Coastal Implementation Plan have regulations that permit such construction to reduce erosion hazards near existing dwellings," citing Section 20.147.060(B)(7) of Part 5 of the Coastal Implementation Plan (IP). However, this IP section only permits shoreline protection when required to protect existing structures in danger from erosion, when designed to mitigate for the adverse impacts on local shoreline sand supply, and when no other less-environmentally damaging alternatives are feasible. This IP section also requires that existing structures be "substantial structures," such as a primary residence, a major road, or a significant facility or accessway used by the public.

From the "As Built Bluff Protection Plan" the Read single family dwelling is the only substantial structure in the project area that would be protected by the development. However, this single family dwelling appears to be located more than 50 feet from the bluff edge. The Initial Study estimated the bluff erosion rate in the project area to be 0.25 feet per year. The Commission's long practice has been to evaluate the immediacy of any threat in order to make a determination as to whether an existing structure is "in danger" and has generally interpreted "in danger" to mean that an existing structure would be unsafe to occupy within the next two or three storm season cycles (generally, the next few years) if nothing were to be done (i.e., in the no project alternative). At the estimated rate of erosion of 0.25 feet per year, the Read home is not "in danger" from erosion as defined by the LCP or Coastal Act. The closest development to the bluff edge includes the stone walk and planters, which are located within 7-20 feet of the bluff edge. However, these elements do not constitute existing "substantial structures," as defined in IP Section 20.147.060(B)(7), and thus do not warrant protection under the LCP. Therefore, there are no existing substantial structures in close proximity to the bluff edge that would be considered

**Comments on the Initial Study/Negative Declaration
for Read Bluff Stabilization and Erosion Control Project
Page 2**

to be “in danger from erosion” as required by the LCP for development that alters natural shoreline processes.

In addition, as required by IP Section 20.147.060(B)(7), the project is required to mitigate for adverse impacts to local shoreline sand supply. The coastal protection installed at the site includes structures along the upper edge of the bluff covering terrace deposits and structures installed over the granitic bedrock which extend onto the sandy portion of the beach. Therefore, the development has the potential to impact shoreline sand supply through the loss of the beach area on which the structure is located, the long-term loss of beach that will result when the back-beach location is fixed on an eroding shoreline, and the amount of material that would have been supplied to the beach if the back-beach or bluff were to erode naturally.

The Initial Study included an analysis of the amount of beach material that would have been supplied to the beach if the back-beach or bluff were to erode naturally. The analysis used an average erosion rate for the terrace deposits of 0.25 feet per year and estimated that 50% of the bluff materials would contribute to beach sand. However, the analysis does not describe the exact standards used to determine what type of materials from the bluff qualify as beach sand and does not distinguish if this erosion rate is the same for the granitic bedrock in the project area. The analysis also used a 40-foot linear bluff in calculating the estimate. However, the development appears to be much longer than 40-feet as seen in the “As Built Bluff Protection Plan.” The Initial Study’s analysis concluded that the project would impact 30-cubic-feet of sand per year through the retention of beach material, but it does not estimate the amount of material that would have been supplied to the beach over the lifetime of the project, does not calculate the sand loss due to direct coverage of the beach by the portion of the coastal protection that extends onto the sandy portion of the beach, and does not include the passive sand loss from recession due the fixing the position of the back edge of the beach, which would prevent new beach area from forming. Therefore, the analysis for impacts to shoreline sand supply for this project, as required by the LCP, is incomplete. The project also has not provided any mitigation for the impacts to shoreline sand supply also required by the LCP. Finally, IP Section 20.147.060(B)(7) only allows for shoreline armoring when no less-environmentally damaging alternative is feasible. However, the Initial Study did not evaluate the need for the project and no alternatives analysis was conducted to evaluate if any other less-environmentally damaging alternatives to shoreline armoring were feasible, including a “no project” alternative, as required by the LCP.

The LCP also has special protections for environmentally sensitive habitat areas (ESHA), which includes the area of Otter Cove upcoast and adjacent to the project site, which provides a haul out and pupping site for harbor seals. IP Section 20.147.040(B) requires that biological reports be prepared if development is located within 100 feet of ESHA to determine the exact boundaries of ESHA and recommend siting and mitigation measures to ensure protection of sensitive species and habitats. Development standards listed in IP Section 20.147.040(C) also require development to be set back a minimum of 100 feet from ESHA. In addition, the LCP includes ESHA policies specific to shoreline and marine habitats, which require that development be set back 100 feet from the mean high water line of the ocean. From the “As Built Bluff Protection Plan” it is clear that the project was constructed within 100 feet of the mean high water line of the ocean. However, it is not clear from the Negative

**Comments on the Initial Study/ Negative Declaration
for Read Bluff Stabilization and Erosion Control Project
Page 3**

Declaration or Initial Study documents where the ESHA boundaries on the property exist, whether the development occurred within ESHA or within 100 feet of ESHA, and whether proposed mitigation measures during construction were taken into account for the development, as required by the LCP.

Within the Initial Study, there is also a description of artificial rock fascia installed “on a private beach with no public access,” bluff protection installed to protect a Cypress tree on the bluff, and an engineered berm with a grease trap installed to filter water from the parking lot towards the north end of the property. It is unclear from the information presented whether or not these development features are part of this Negative Declaration and Initial Study since they are not depicted in the “As Built Bluff Protection Plan.” If they are, then these improvements should be depicted in the project plans and the impacts to sand supply and ESHA should be evaluated similarly to the bluff protection constructed on the southern end of the property.

Finally, portions of the project may have been located below the mean high tide line (MHTL) and would therefore be under the jurisdiction of the Coastal Commission. While the MHTL is depicted in the “As Built Bluff Protection Plan” to be outside the project area, it is not clear how this location of this MHTL was determined. In addition, any portion of the seawall keyed into the bedrock could be within the Commission jurisdiction since the underlying bedrock may extend past the MHTL. Lastly, any temporary construction areas below the MHTL would also be within the Coastal Commission jurisdiction. As a result, the project must undergo formal review by the California Coastal Commission for any development or temporary construction areas used for the project that are within the Coastal Commission’s jurisdiction.

Thank you for the opportunity to comment on the above referenced Negative Declaration and Initial Study. I hope these comments are helpful in providing guidance and input for the Read Bluff Stabilization and Erosion Control Project. Please do not hesitate to contact me at the email or phone number below if you have any questions.

Jeannine Manna
Coastal Planner
Central Coast District Office
Jeannine.Manna@coastal.ca.gov
(415) 904-5250

EXHIBIT H
READ (PLN100670)
APPLICANTS RESPONSE TO COMMENTS FROM THE
COASTAL COMMISSION

FENTON & KELLER

A PROFESSIONAL CORPORATION

ATTORNEYS AT LAW

2801 MONTEREY-SALINAS HIGHWAY

POST OFFICE BOX 791

MONTEREY, CALIFORNIA 93942-0791

TELEPHONE (831) 373-1241

FACSIMILE (831) 373-7219

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LEWIS L. FENTON
1925-2005

OF COUNSEL _____
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JOHN S. BRIDGES
DENNIS G. MCCARTHY
CHRISTOPHER E. PANETTA
DAVID C. SWEIGERT
SARA B. BOYNS
BRIAN D. CALL
TROY A. KINGSHAVEN
SHARILYN R. PAYNE
BRIAN E. TURLINGTON
CAROL S. HILBURN
KATHERINE M. HOGAN
ELIZABETH R. LEITZINGER
JOHN E. KESECKER
CHRISTINA J. BAGGETT

June 20, 2013

JOHN S. BRIDGES

JBridges@FentonKeller.com
ext. 238

VIA EMAIL (montanor@co.monterey.ca.us)

Ramon Montano
Monterey County Planning & Building Department
168 W. Alisal Street, 2nd Floor
Salinas, CA 93901

Re: Read Bluff Stabilization/Erosion Control Project (PLN100670)
Our File: 32567.29567

Dear Ramon:

This letter is to respond to the June 6, 2013, Coastal Commission staff comment on the Negative Declaration/Initial Study for the above referenced project. It appears the Commission staff did not have an opportunity to review the numerous technical analyses in the project file and referenced in the Initial Study document prior to preparing their comment letter. For the benefit of all concerned, I asked technical consultants, Gary Griggs and John Kasunich, to provide direct responses to the Commission staff comment. Their responses are enclosed herewith. It is worth noting that Mr. Griggs concludes, "In my professional opinion, the project is permissible under the LCP criteria cited in the Coastal Commission letter."

Commission staff was also apparently unaware that a biological report was prepared for the project and that it affirmatively confirmed the project did not and does not threaten to pose any adverse effect on ESHA. Of course, because much of the property constitutes ESHA (which is one of the reasons the house is located where it is) a 100 foot setback from all ESHA is not possible.

Commission staff also seemed to be somewhat confused by the reference in the Initial Study to the cypress tree protection project at the west end of the property. As you know, that separate project was approved by Monterey County several years ago and subsequently appealed by the Coastal Commission. That appeal has not been processed by the Commission as of this date.

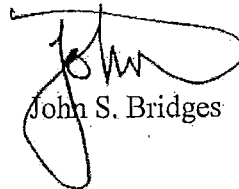
Ramon Montano
June 20, 2013
Page 2

Finally, as you know the mean high tide line/jurisdictional question raised by the Commission staff comment has been previously addressed directly with Commission staff and correspondence regarding that issue is in your file. The project is not subject to Coastal Commission original jurisdiction but it is subject to their appeal jurisdiction.

I hope the enclosed information is helpful to you in preparing your staff report. We look forward to presenting the project to the Planning Commission on July 10.

Very truly yours,

FENTON & KELLER
A Professional Corporation



John S. Bridges

JSB:kmc

Enclosures

cc: (all via email)
Peter Read (w/encls.)
Gary Griggs (w/encls.)
John Kasunich (w/encls.)

Gary B. Griggs
Consulting Coastal Geologist
Registered Geologist and Certified Engineering Geologist
321 Alta Avenue-Santa Cruz, California 95060
(831) 332-9318; fax (831) 459-4882; email: griggs@ucsc.edu

June 20, 2013

John Bridges
Fenton and Keller
2801 Salinas Highway #B
Monterey, California 93940

RE: Response to Coastal Commission Comments on Negative Declaration and Initial Study for the Read Bluff Stabilization and Erosion Control Project

John,

As you requested, I am providing my responses to Coastal Commission Staff Planner Jeannine Manna's June 6 comments on the Monterey County Negative Declaration and Initial Study for the Read project. In reading the staff report, it seems clear that Jeannine did not have access to the previous reports that have been prepared on the project, specifically my report dated April 2011: *Geologic Report Focused on Wave Impact Hazards, Coastal Bluff Erosion, and Shoreline Protection on the Read Property, 3158 17-Mile Drive, Pebble Beach, APN 008-491-14, Monterey County California*. Many of the issues and questions raised in the Commission letter of June 6 are covered in that report. I will address each of the points individually.

1. Distances to bluff edge and erosion rates. The Geologic Report, on pages 4-18, covers the process of coastal erosion/bluff retreat, documents the rates and uncertainties involved, summarizes previous coastal erosion investigations and rates determined, and discusses the influences of future sea-level rise, changing wave climate and historic extreme events, as well as existing and future risks to the Read home.

The important wave attack and bluff erosion questions for the future were addressed and include:

- 1] What has been the past history of bluff retreat and wave overtopping at the site?
- 2] What has happened in the past during severe storms or erosion events?
- 3] What wave attack and erosion hazards can likely be expected to occur in the future on this site?

At its closest point, the Read home is 45 feet from the bluff edge. Bluff erosion rate based on historic aerial photographs average about 0.5 ft/yr (rather than the 0.25 ft/yr listed in Coastal Commission letter). However, bluff erosion is a very episodic process and applying an

average annual erosion rate doesn't address the episodic nature of the erosion process or the extreme events. The Coastal Commission changed a previous decision to deny a protection project in response to this issue in December 2012 in Pismo Beach. Senior staff geologist Mark Johnsson agreed that relying on an average erosion rate is not the ideal way to determine a realistic threat scenario for the bluff area. The case was made and agreed upon by Commission geologist Johnsson that extreme events can have impacts and produce erosion that is far greater than the average annual rate, and staff then recommended approval. The episodic nature of bluff erosion has been clear to coastal geologists for years- that average rates are just that- and it is the extreme or infrequent events that produce the major erosion and damage and present the greatest risks. This was also documented and illustrated at Otter Cove in the Geologic Report where high tides and waves overtopped the bluff on January 4-5, 2008, stripping off the vegetation, overturning a heavy bench and statue set well back from the bluff edge, eroding bluff-top soils and washing inland to the edge of the Read home.

In addition, sea level is rising at an increasing rate and all state agencies, including the Coastal Commission, are now adopting the future sea levels for 2030, 2050 and 2100 included in the recent National Research Council West Coast Sea-Level Rise Committee Report (*Sea-Level Rise for the Coasts of California, Oregon and Washington: Past, Present and Future*- National Research Council, 2012). The projections have ranges due to uncertainties in the future of greenhouse gas emissions among other issues, but are listed below.

Table 1. Sea-Level Rise Projections using 2000 as the Baseline

Time Period	North of Cape Mendocino ³	South of Cape Mendocino
2000 - 2030	-4 to 23 cm (-0.13 to 0.75 ft)	4 to 30 cm (0.13 to 0.98 ft)
2000 - 2050	-3 to 48 cm (-0.1 to 1.57 ft)	12 to 61 cm (0.39 to 2.0 ft)
2000 - 2100	10 to 143 cm (0.3 to 4.69 ft)	42 to 167 cm (1.38 to 5.48 ft)

There is considerable discussion in the Geologic Report regarding the increasing risk posed by a continuing rise in sea level, combined with the increase in wave heights that has been documented. Considering that extreme events have already brought ocean water to the front of the Read home, there is a clear risk already from extreme events that will only increase in the future given the observed trends in sea level rise and wave heights documented in the report. In my professional opinion, the project is permissible under the LCP criteria cited in the Coastal Commission letter.

2. Adverse Impacts on Shoreline Sand Supply. The issues of the impacts of the bluff top fascia on the shoreline sand supply were treated in detail in pages 20-28 of the Griggs report under a discussion of potential impacts of a coastal bluff protection structure.

In order to determine the amount of beach compatible sand that is supplied by bluff or cliff erosion in any shoreline location, one needs to determine the following:

- a. the height and thickness of the bluff area proposed for protection or armoring
- b. the lineal frontage of bluff that is proposed for protection
- c. the average annual rate of erosion of the bluff
- d. the percentage of beach compatible sand in the bluff materials

The final consideration in the equation is the size or volume of the beach or the annual littoral drift rate, in order to determine how significant this potential loss might be to the regional beach sand budget.

There is no wide sandy beach fronting the section of eroding bluff proposed for protection in front of the Read home. Rather there is a very small (about 25-foot wide) pocket beach. Granite outcrops form the rear and both sides of the cove as well as most of the intertidal zone. This beach consists of a mixture of granite boulders, cobbles, gravel and very coarse-grained sand. Most of the sand moves offshore in the winter months, and sediments in the small cove are dominated by boulders, cobbles and gravel.

Each of the above factors was measured or determined. The area of bluff top proposed for protection and used in the determination is approximately 80 feet in length (rather than the 40 feet listed in the Coastal Commission comment letter) and is fronted by a granitic bench and rocky intertidal zone. Although it seems evident that it is the breakdown of the granitic bedrock that is the source of the great majority of the coarse-grained material in the cove fronting the bluff, the potential contribution of beach compatible material from the bluff top soils proposed for protection was determined (pages 25-27 of geologic report).

The determination of the average amount of beach compatible material provided by erosion of the bluff-top terrace deposits and soils proposed for protection is as follows:

80 feet of bluff frontage X 6 feet (average height of bluff top proposed for protection) X 0.50 ft/yr (average erosion rate) X 26% (% of beach compatible sand) = 62 cubic feet or 2.3 yd³/year of beach compatible sand.

The granitic cobbles and boulders, which form most of the material in this small cove, do not appear to migrate but remain in place for many years. The finer-grained material coming from bluff erosion does not remain on this beach due to the high wave energy so the very small amount of sand contributed by bluff failure is of no significance to this small rocky cove.

To provide some additional perspective to this very low value, the approximate volume of sand on Otter Cove beach to the west was determined to be ~5700 yds³ (using a measured surface area of exposed beach of about 31,000 ft² and an average sand thickness of 5 feet). An average annual contribution of 2.3 yd³ is an insignificant volume of sand relative to the total volume of sand present on the Otter Cove beach (0.04%). Additionally, recent work by USGS scientists Storlazzi and Field (2000), indicates that sand along this portion of the

Monterey peninsula appears to be in transit from north to south, thus the sand on this beach is augmented by sand from further upcoast on the peninsula. **The proposed bluff top erosion control fascia would, therefore, have no significant or measurable impact on the larger Otter Cove beach or the regional sand supply.**

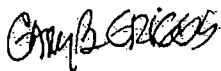
Because nearly all of the protective fascia protects only the upper six feet of bluff top terrace deposits and soils, there is no significant effect on the long-term erosion of the granite bedrock making up the lower portion of the bluff. In two very small areas, totalling about 12 lineal feet of the 80 feet of bluff area, protection did fill in small niches or embayments in the granite. Over time, as the granite exposed to wave attack erodes, it will continue to provide a small local source of sand to the shoreline. At the point when the granite erodes landward to the base of the fascia, that material will gradually be undercut and fail and erosion will continue landward. Although this small area being protected does not adjoin a usable or public beach, there will never be a passive erosion issue here because the granite forming the base of the bluff has not been armored except in the two very small areas mentioned. The fascia did not extend down to beach level, so there was no direct coverage of beach by the structure. **There are, therefore, no placement losses.**

3. Consideration of project alternatives: A discussion of alternatives of options for mitigating or reducing the risks of future erosion and wave impact was included in the Geologic Report on pages 19-23. The alternatives considered and evaluated included:

- A. Do Nothing or No Project
- B. Relocate Dwelling
- C. Beach Nourishment
- D. Bluff Protection

I hope this provides useful responses to each of the issues raised in the Coastal Commission letter to Monterey County Planning Department.

Sincerely,



Gary Griggs
Consulting Coastal Geologist

Project No. M6913
20 June 2013

Mr. Peter Read
c/o John Bridges
Fenton and Keller
P. O. Box 791
Monterey, California 93942-0791

Subject: Response to Coastal Commission Comments Regarding Coastal Bluff Protection Project Location Relative to the Mean High Tide Line

Reference: Coastal Commission Comments on the Initial Study/Negative Declaration in letter dated June 6, 2013

3158 Seventeen Mile Drive, Pebble Beach
Monterey County, California

Dear Mr. Read:

The purpose of this letter is to respond to Coastal Commission comments regarding the coastal bluff protection project location relative to the Mean High Tide Line (MHTL). At your request, we have reviewed the Read Property As Built Bluff Protection Plans dated 4/1/2011 that were prepared by our firm. The MHTL location depicted on Sheet 2 of the plans was determined based on a field survey on 3-4-2011 by a Licensed California Professional Land Surveyor.

We reviewed the cross sections on Sheet 3 of the Read Property As Built Bluff Protection Plans, dated 4/1/2011 and the lowest portion of the erosion protection fascia meets the beach profile above elevation +4 NGVD. This in a location well landward of the MHTL position, the location of which is indicated on the cross sections.

As shown on Sheet 2 of the Bluff Protection Plans the erosion control fascia is typically 20 to 25 feet landward of the surveyed MHTL, with the closest point being 16 feet from the surveyed MHTL. We were present at the site during the MHTL field survey. The beach area where the MHTL was surveyed consisted of bedrock, small boulders and cobbles at the time of the survey.

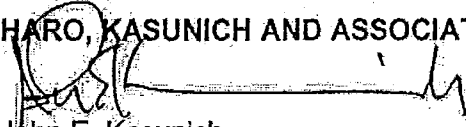
We were not at the site when the Bluff Protection was constructed. We understand that scaffolding that was located within 4 to 5 feet of the bluff face where the erosion control fascia was applied was used to facilitate construction, and no work of any kind occurred close to or beyond the MHTL. The temporary construction area did not extend seaward of the MHTL.

Mr. Peter Read
Project No. M6913
3158 Seventeen Mile Drive
20 June 2013
Page 2

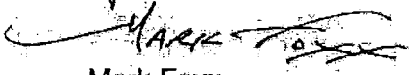
If you have any questions concerning the data or conclusions presented in this report, please call our office.

Respectfully Submitted,

HARO, KASUNICH AND ASSOCIATES, INC.



John E. Kasunich
G.E. 455
C. E. 33177



Mark Foxx
C.E.G. 1493

JEK/MF/sr

Copies: 2 to Addressee
1 to Gary Griggs
1 to File

Exhibit I

**Letter from California Coastal Commission dated July 26, 2013
with Comments on Additional Information Submitted in
Reference to the Negative Declaration**

CALIFORNIA COASTAL COMMISSION

CENTRAL COAST DISTRICT OFFICE
725 FRONT STREET, SUITE 300
SANTA CRUZ, CA 95060
PHONE: (831) 427-4863
FAX: (831) 427-4877
WEB: WWW.COASTAL.CA.GOV



July 26, 2013

County of Monterey
Monterey County Planning Commission
Attn: Ramon Montano
168 Alisal Street, 2nd Floor
Salinas, CA 93901

Subject: Comments on Additional Information Submitted in Reference to the Negative Declaration and Initial Study for the Read Bluff Stabilization and Erosion Control Project and

Dear Mr. Montano:

Coastal Commission staff has reviewed Dr. Gary Griggs' *August 2011 Geologic Report Focused on Wave Impact Hazards, Coastal Bluff Erosion, and Shoreline Protection on the Read Property*. We have also reviewed Dr. Griggs' *Response to Coastal Commission Comments on Negative Declaration and Initial Study for the Read Bluff Stabilization and Erosion Control Project*. The proposed project consists of an after-the-fact permit to install bluff stabilization and erosion control fascia along a coastal bluff on the Read property located at 3158 17-Mile Drive in the Del Monte Forest area of Pebble Beach. According to the Initial Study, the coastal protective devices have been designed to reduce erosion of terrace deposits and overlying soils due to wave action in order to protect the existing single family dwelling on the property. We have the following comments:

The Initial Study states "The project proposes bluff protection to reduce erosion of the existing bluff located near the existing single family dwelling. The Del Monte Forest Land Use Plan and Coastal Implementation Plan have regulations that permit such construction to reduce erosion hazards near existing dwellings," citing Section 20.147.060(B)(7) of Part 5 of the Coastal Implementation Plan (IP). However, this IP section only permits shoreline protection when required to protect existing structures in danger from erosion, when designed to mitigate for the adverse impacts on local shoreline sand supply, and when no other less-environmentally damaging alternatives are feasible. This IP section also requires that existing structures be "substantial structures," such as a primary residence, a major road, or a significant facility or accessway used by the public.

From the "As Built Bluff Protection Plan" the Read single family dwelling is the only substantial structure in the project area that would be protected by the development. However, this single family dwelling appears to be located more than 50 feet from the bluff edge. It has been brought to our attention that the estimated bluff erosion rate of 0.25 feet per year noted in the Initial Study was incorrect. As concluded in Dr. Griggs' report, a more reasonable estimate for the site based on past erosion is 0.5 feet per year. The Commission's long practice has been to evaluate the immediacy of any threat in order to make a determination as to whether an existing structure is "in danger." The Commission has generally interpreted "in danger" to mean that an existing structure would be unsafe to occupy within the next two or three storm season cycles (generally, the next few years) if nothing were to be done (i.e., in the no

**Comments on the Information related to the Initial Study/Negative Declaration
for Read Bluff Stabilization and Erosion Control Project
Page 2**

project alternative). Even with the new estimated rate of erosion of 0.5 feet per year, the Read home is not "in danger" from erosion as defined by the LCP or Coastal Act. From examination of Figure 5 in Dr. Griggs' report (which illustrates the projected 50, 75, and 100 year erosion lines of the bluff from an analysis done by Nielsen and Associates (2004) which assumed a bluff erosion rate between 0.45 and 0.75 feet per year) it appears that the Read home, guest house, and garage would be safe for another 50 years, and therefore these structures are not in imminent danger from erosion. In addition, Figure 5 also suggests that the portion of the bluff that would intersect the Read guest house within 75 years is located at the western property end, and not the southern end of the property where the bluff has been armored. If the property owner plans to protect his home from bluff erosion occurring on the western end of the property, then this would suggest that future bluff protection may need to occur near Otter Cove in closer proximity to environmentally sensitive habitat areas (ESHA).

The closest development to the bluff edge includes the stone walk and planters, which are located within 7-20 feet of the bluff edge. However, these elements do not constitute existing "substantial structures," as defined in IP Section 20.147.060(B)(7), and thus do not warrant protection under the LCP. Therefore, there are no existing substantial structures in close proximity to the bluff edge that would be considered to be "in danger from erosion" as required by the LCP for development that alters natural shoreline processes.

Dr. Griggs also stresses in his report the importance of taking into account large episodic erosion events that could occur on the property from large storms, including El Niño storms. In particular, he highlights an event which occurred on January 2008 where high waves overtopped the bluff, overturning a stone bench and stripping back vegetation. However, this property damage occurred on the western end of the property. It is not clear from the materials provided that this overtopping and wave uprush event resulted in property damage near the southern property line where the bluff protection was installed. While the proposed project would minimize erosion of the upper bluff on the southern end of the property, erosion would continue near the western end of the property on the bluff fronting Otter Cove and at the point. Therefore, it is not clear that the project has been designed to prevent the type of large episodic erosion events discussed in Dr. Griggs' report.

In addition, as required by IP Section 20.147.060(B)(7), any approvable project is required to mitigate for adverse impacts to local shoreline sand supply. The coastal protection installed at the site includes structures along the upper edge of the bluff covering terrace deposits and structures installed over the granitic bedrock which extend onto the sandy portion of the beach. Therefore, the development has the potential to impact shoreline sand supply through the loss of the beach area on which the structure is located, the long-term loss of beach that will result when the back-beach location is fixed on an eroding shoreline, and the amount of material that would have been supplied to the beach if the back-beach or bluff were to erode naturally. There is also bluff protection depicted in the project plans as "pre-existing artificial rock bluff protection" and in Figure 13 of Dr. Griggs' report. It is unclear from the information provided when this bluff protection was installed and if it is permitted. If this bluff protection is being proposed as part of this project it needs to be evaluated for its impacts to local shoreline sand supply since it extends from the top of the bluff down to the sandy beach.

The Initial Study included an analysis of the amount of beach material that would have been supplied to the beach if the back-beach or bluff were to erode naturally. The analysis used an average erosion rate for the terrace deposits of 0.25 feet per year, a linear bluff of 40 feet, and estimated that 50% of the bluff materials would contribute to beach sand. However, the analysis does not describe the exact standards used to determine what type of materials from the bluff qualify as beach sand and does not distinguish if this erosion rate is the same for the granitic bedrock in the project area. Dr. Griggs clarifies in his response letter that the bluff to be armored is actually 80 feet in length and that only about 26% of the bluff materials contribute to beach sand. Also, as mentioned earlier, the bluff in this area has an erosion rate of 0.5 feet per year. Given that the analysis used a 40-foot linear bluff in calculating the estimate, the result underestimates the amount of sandy supply loss due to the project. Using the new parameters provided, the estimated 30-cubic-feet of sand loss per year due to the project (as determined in the Initial Study) would actually be a loss of 62-cubic feet per year. This estimate also does not include an estimate of the amount of material that would have been supplied to the beach over the lifetime of the project, and does not calculate the sand loss due to direct coverage of the beach by the portion of the coastal protection that extends onto the sandy portion of the beach. Also, this estimate does not include the passive sand loss from recession due to fixing the position of the back edge of the beach in areas where the bluff protection extends down to the sand beach, which would prevent new beach area from forming. Therefore, the analysis for impacts to shoreline sand supply for this project, as required by the LCP, is incomplete. The proposed project also does not include any mitigation for the impacts to shoreline sand supply as required by the LCP.

Finally, IP Section 20.147.060(B)(7) only allows for shoreline armoring when no less-environmentally damaging alternative is feasible (this section assumes that there is a structure in imminent danger from erosion). However, the Initial Study did not evaluate the need for the project and no alternatives analysis was conducted to evaluate if any other less-environmentally damaging alternatives to shoreline armoring were feasible, including a "no project" alternative, as required by the LCP. Specifically, Dr. Griggs' report states, "Surface drainage from inland areas (the 17-Mile Drive and Crocker Grove) and groundwater seepage appear to have been concentrated on the top of the bedrock here and have led to weakening and failure of the granodiorite, as well as past gulying of the soils and weaker terrace deposits." It appears from this statement that erosion along the southern property line could be reduced through modifications to drainage patterns, which were not evaluated. The Read home is also substantial in size, and while relocating the entire structure seems to be infeasible, there was no alternative considered to alter any portions of the structure. As mentioned in the sea level rise section of Dr. Griggs' report, the future increases in sea level rise would eventually put the Read home in danger within the next 100 years. Only substantial coastal protective devices would protect the Read home from overtopping and wave run-up in the future. Therefore, the option of altering the design of the structure should be considered now and in the future.

Del Monte Forest Land Use Plan (LUP) Hazards Policy 5 states, "New development shall be sited and designed to minimize risk from geologic, flood, or fire hazards; to assure stability and structural integrity; and to not threaten the stability of a site, contribute significantly to erosion, geologic instability, or destruction of the site or surrounding areas." The project plans depict drainage features

**Comments on the Information related to the Initial Study/Negative Declaration
for Read Bluff Stabilization and Erosion Control Project**

Page 4

that extend through the wall, which would convey water from the bluff to the beach in the event where overtopping occurs. However, there is not sufficient detail or analysis of this drainage system to be able to conclude that there would be no impacts to hydrology or surface drainage from the structure. Without proper drainage facilities, the bluff could become saturated, decreasing the stability of the protection, and possibly resulting in loss of large portions of the bluff. Altering the drainage pattern of the site could also exacerbate erosion on other portions of the bluff. Finally, as most of the bluff protection occurs only along the upper portion of the bluff, increased erosion, which would be exacerbated by future sea level rise, would eventually also lead to undermining of the structure as built. Therefore, it is not clear that the structure has been designed to assure structural stability and integrity, consistent with the Del Monte Forest LUP Hazards policy 35.

The LCP also has special protections for environmentally sensitive habitat areas (ESHA), which includes the area of Otter Cove upcoast and adjacent to the project site, and which provides a haul out and pupping site for harbor seals. IP Section 20.147.040(B) requires that biological reports be prepared if development is located within 100 feet of ESHA to determine the exact boundaries of ESHA and recommend siting and mitigation measures to ensure protection of sensitive species and habitats. Development standards listed in IP Section 20.147.040(C) also require development to be set back a minimum of 100 feet from ESHA. In addition, the LCP includes ESHA policies specific to shoreline and marine habitats, which require that development be set back 100 feet from the mean high water line of the ocean. From the "As Built Bluff Protection Plan" it is clear that the project was constructed within 100 feet of the mean high water line of the ocean. However, it is not clear from the Negative Declaration or Initial Study documents where the ESHA boundaries on the property exist, whether the development occurred within ESHA or within 100 feet of ESHA, and whether proposed mitigation measures during construction were taken into account for the development, as required by the LCP.

Finally, there is still disagreement between the Applicant's consultant and Coastal Commission staff regarding whether or not portions of the project, including temporary construction activities, were located below the mean high tide line (MHTL) and would therefore be under the jurisdiction of the Coastal Commission. As a result, the project may still have to undergo formal review by the California Coastal Commission for any development or temporary construction areas used for the project that are within the Coastal Commission's jurisdiction.

Thank you for the opportunity to comment on the above documents. I hope these comments are helpful in providing guidance and input for the Read Bluff Stabilization and Erosion Control Project. Please do not hesitate to contact me at the email or phone number below if you have any questions.

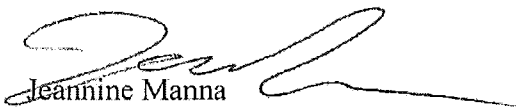

Jeannine Manna
Coastal Planner
Central Coast District Office
Jeannine.Manna@coastal.ca.gov
(415) 904-5250

Exhibit J

**Applicant's Letter dated August 9, 2013 with Responses to
California Coastal Commission's Comments on Additional
Information**

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JOHN E. KESECKER
CHRISTINA J. BAGGETT

August 9, 2013

JBridges@FentonKeller.com
ext. 238

JOHN S. BRIDGES

VIA EMAIL (montanor@co.monterey.ca.us)

Dictated but not read.
Emailed in attorney's
absence to avoid delay.

Ramon Montano
Monterey County Planning Department
168 W. Alisal Street, 2nd Floor
Salinas, CA 93901

Re: Read Bluff Stabilization/Erosion Control Project (PLN100670)
Our File: 32567.29567

Dear Ramon:

Attached are further responses from Coastal Geologist, Registered Geologist, and Certified Engineering Geologist Gary Griggs and project Geotechnical and Coastal Engineers Haro, Kasunich and Associates to Coastal Commission staff comments dated July 26, 2013. These experts conclude the Read Project is consistent with the Del Monte Forest LCP. Mr. Griggs specifically states, "The Read home is in danger and the fascia, which is the minimum necessary and least impactful protection for this circumstance, is warranted and approvable under the Coastal Act and the Del Monte Forest LCP."

As you know, prior correspondence in the record has addressed the MHTL (mean high tide line) question and the project biologist has previously confirmed the fascia work did not impact ESHA on the property.

In terms of alternatives, a "no project" (i.e., status quo) alternative is not feasible because the home is in need of protection as explained by Mr. Griggs. Relocating the home is economically infeasible and would conflict with protections afforded the many cypress trees on the property which are ESHA and which dictated the placement of the house in the first instance. Moreover, Mr. Read has a constitutional right to protect his home and the project does so in the least impactful way and in a manner consistent with the LCP. The Coastal Commission staff is asking the County to apply standards that are not part of the LCP or the Coastal Act.

Ramon Montano
August 9, 2013
Page 2

We look forward to presenting the project before the Planning Commission on August 28. If you have any questions before then please let me know.

Very truly yours,

FENTON & KELLER
A Professional Corporation

John S. Bridges *by KMC*
John S. Bridges

JSB:kmc

Enclosures

cc: (all w/encls.)
Bob Schubert
Gary Griggs
John Kasunich
Peter Read

Gary B. Griggs

Consulting Coastal Geologist
Registered Geologist & Certified Engineering Geologist
321 Alta Avenue-Santa Cruz, California 95060
(831) 332-9318; fax (831) 459-4882; email: griggs@ucsc.edu

August 4, 2013

Ramon Montano
Monterey County Planning Department
168 Alisal Street, 2nd Floor
Salinas, CA 93901

RE: Response to Jeannine Manna's July 26, 2013 Comments On Otter Cove Project, 3158 17-Mile Drive, Pebble Beach, APN 008-491-14

Ramon,

Attached below are my written responses to Jeannine Manna's most recent memo on the Otter Cove Project. I have tried to be both complete but somewhat succinct in responding to Jeannine Manna's most recent memo to you.

1. **Need for Protection:** While Jeannine references the "Commission's long practice" of evaluating the immediacy of any threat in order to make a decision about whether an existing structure is "in danger", and that "the Commission has generally interpreted in danger to mean that an existing structure would be unsafe to occupy within the next two or three storm cycles (generally, the next few years) if nothing were to be done".. the original Coastal Act language actually states:

"revetments...seawalls, cliff retaining walls, and other such construction...shall be permitted when required ... to protect existing structures... in danger from erosion and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply"

There are three different considerations that I have discussed in my earlier reports and memos that affect the danger from erosion and wave runup and the need for protection of the Read home:

A. The long-term erosion rate and when the bluff edge gets close enough to the structure that it is in danger during large storm events and unsafe to occupy. The calculated average long-term erosion rate on the site based on the aerial photographic history has been determined to be about 0.5 ft./yr. If this average rate were to continue unchanged into the future, encroachment of the bluff edge to the edge of the Read home would occur in about 90 years. However, waiting until the bluff edge reaches a foundation would eliminate the possibility of protecting a home, and in essence amounts to

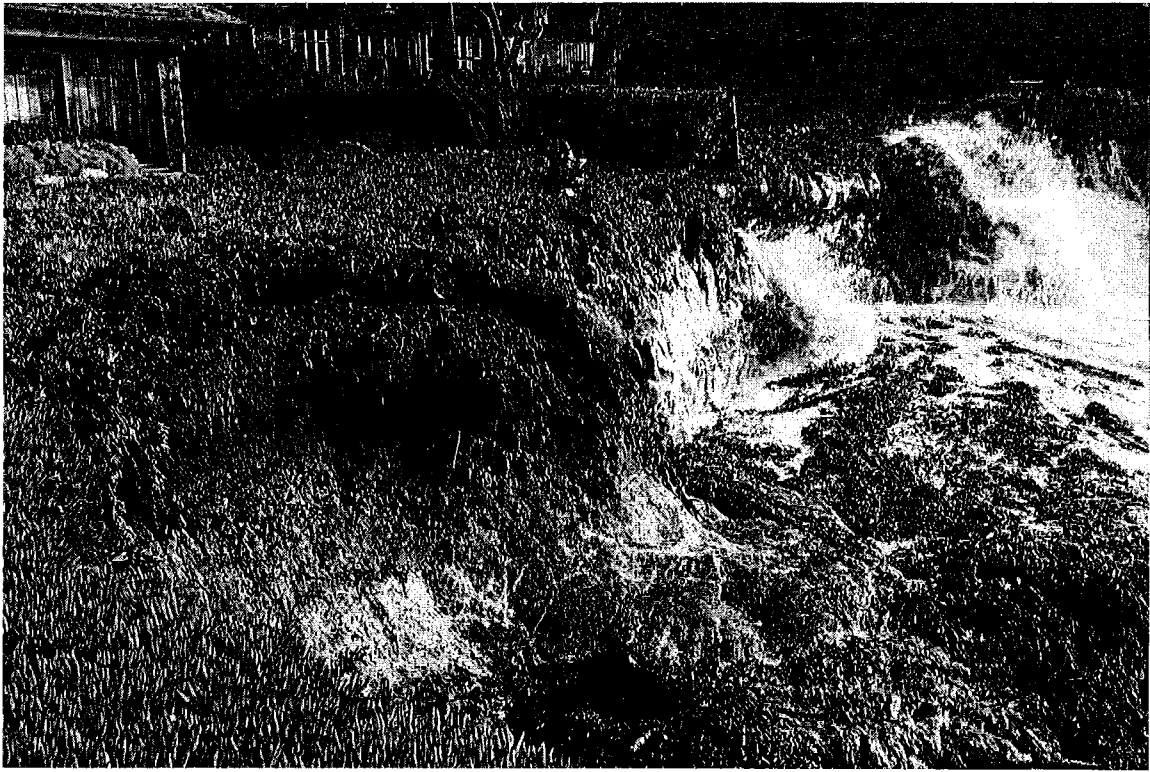
condemning the home. There is also a very high likelihood that the bluff erosion rate will increase in the years ahead as sea level rises (explained in C. below).

B. All bluff erosion is episodic, however, and it is the extreme events that pose the greatest risk. As was pointed out in both my January 19, 2013 and my June 20, 2013 memos, the Coastal Commission staff geologist (Mark Johnsson) has agreed in a Pismo Beach decision in December 2012 that using average bluff erosion rates is not the ideal way to determine a realistic threat. The impacts of the January 2008 storm waves combined with high tides was well-documented in photographs at the Otter Cove site and illustrate the hazards of extreme events on the site. Photographs indicate that a heavy stone structure 20 feet inland from the top of the bluff was overturned by wave impact, and ice plant was completely ripped from the ground 30 feet inland from the bluff edge. Photographs from that event also indicate that ice plant and other debris was washed up to the front edge of the Read home, 50 to 65 feet from the bluff edge. The front yard is essentially flat (~1.5 feet of elevation increase over 45 to 60 feet), such that once waves overtop the bluff ocean water washes inland to the house. Having seawater lapping up at the backdoor is clearly putting the house in danger of damage. The position of the bluff edge is not the only factor that determines the risk at this low-lying site.

C. Sea-level is rising at an increasing rate such that both of the above processes will be exacerbated in the future with increased risks. There is already danger and risks to the Read home as evidenced in the January 2008 overtopping event and these will only increase in the future. The home is the lowest in elevation of any home along the entire 17-Mile Drive and is also the closest to the bluff edge, thus is at the greatest risk from the combined effects of sea-level rise and extreme events in the future. It is impossible to predict just when the next extreme event or series of events will take place, but based on the January 2008 event, the risk is already evident and will increase in the future. The Commission has accepted the sea-level rise rates developed by the National Research Council Committee and adopted by CO-CAT (Coastal and Ocean Resources Working Group for the Climate Action Team) for any new development, and for agency consistency, these same criteria for future planning need to be used for existing development as well.

The overtopping in January 2008 occurred on both the eastern and western side of the property as documented in the photographs included in my 2011 report and attached here. The older protective fascia with its recurved and reflective top is immediately below the fence on the right side of the photograph and has prevented wave overtopping. On either side, where no protection was in place, dangerous overtopping is occurring.

The newer protective fascia being reviewed was designed to protect the home from wave overtopping immediately in front of the home where the bluff edge is only 45 to 50 feet away. To the west, where the stone statue and bench are located, the bluff edge is somewhat further away, 65 to 80 feet, and not directly in front of the home, such that the



January 2008 wave overtopping of the bluff on east side of home. Note immediately below the fence that the older protective structure has an overhanging or recurved top, which has prevented wave overtopping. Immediately to the right, however, waves are overtopping the low bluff.

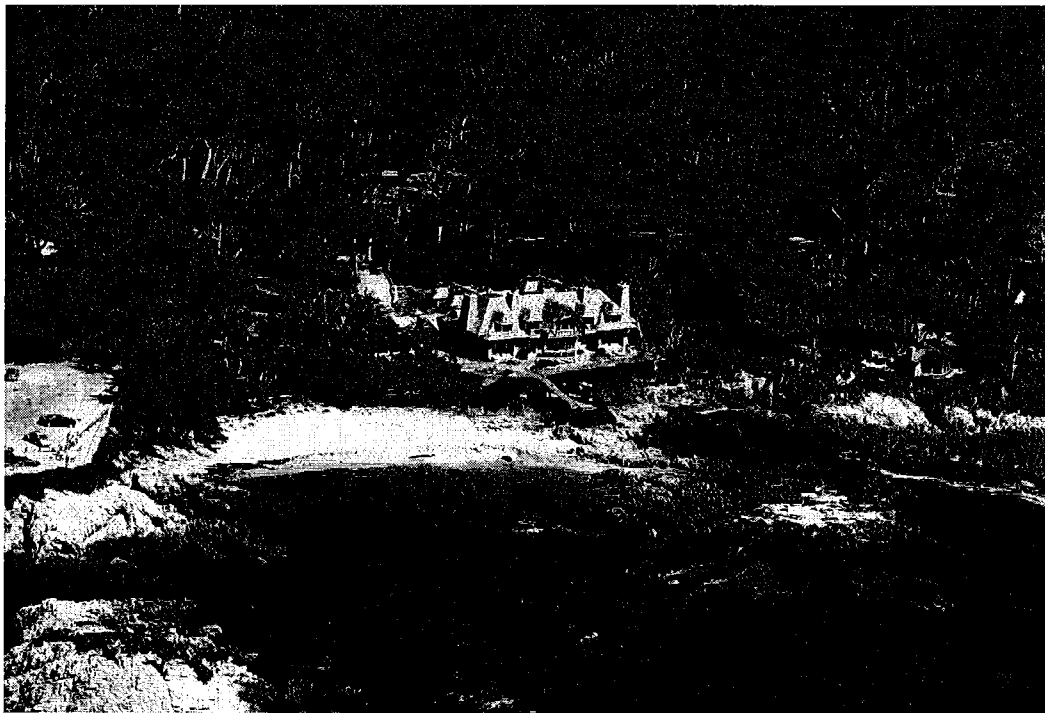


January 2008 overtopping evidence on west side of home, where ice plant and other debris has been carried landward to the back of the Read home by wave runoff.

immediate risk was deemed to be somewhat lower, although for better long-term stability, the top of that section of bluff should be protected in a similar fashion.

- Sand Supply Impacts.** The Coastal Commission staff memo of July 26, 2013 states that IP Section 20.147.060(B)(7) requires any approvable project to mitigate for adverse impacts to local shoreline sand supply. This is a sensible policy where beaches exist and where a significant source of sand would be eliminated or reduced. In front of the Read home, the calculated amount of sand provided on average to the shoreline by the area of terrace deposits protected is just over two cubic yards per year. There is no real beach fronting the area that has been protected but only a small rocky cove consisting dominantly of gravel and cobbles (see aerial photograph below). Otter Cove beach to the left or upcoast of the protected area contains approximately 5,700 cubic yards of sand and coarser material. The calculated reduction of 2.3 cubic yards is 0.04% of this beach volume. This is an imperceptible volume of sand relative to the total volume of sand on Otter Cove Beach, and therefore no mitigation is required.

The rugged coastline for about 1.5 miles upcoast of Otter Cove and for nearly five miles downcoast (to Stillwater Cove) consists dominantly of low granite cliffs or bluffs, and with the exception of Otter Cove and several other very small pocket beaches with no access, this 6.5 mile coastline has no beaches where sand accumulates. Sand supply impact from the Read project is not an issue either on the Read property or regionally. The 80 feet of protected bluff constitutes 0.002% of this 6.5 mile long granitic coastline. There is no adverse impact on local shoreline sand supply because there are 6.5 miles of granite cliffs to provide sand and with the exception of Otter Cove, there are no beaches where sand can accumulate.



2012 aerial photograph of Read home with bluff area protected on right side of home, where there is a narrow rocky cove. Otter Cove beach is to the left.

The Read home is unique along the 17-Mile Drive in being on a very low terrace, quite close to the shoreline, such that it is at a high risk of being impacted by wave overtopping and runup, and continuing bluff erosion. The Read home is in danger and the fascia, which is the minimum necessary and least impactful protection for this circumstance, is warranted and approvable under the Coastal Act and Del Monte Forest LCP.

A handwritten signature in black ink, appearing to read "Gary Griggs". The signature is written in a cursive, somewhat stylized font.

Gary Griggs
Registered Geologist No. 3277
Certified Engineering Geologist No. 1282

Project No. M6913
9 August 2013

Mr. Peter Read
c/o John Bridges
Fenton and Keller
P. O. Box 791
Monterey, California 93942-0791

Subject: Response to Coastal Commission Comments Regarding the Read
Bluff Stabilization and Erosion Control Project

Reference: Coastal Commission Comments on the Initial Study/Negative
Declaration in letter dated July 26, 2013

3158 Seventeen Mile Drive, Pebble Beach
Monterey County, California

Dear Mr. Read:

The purpose of this letter is to respond to Coastal Commission comments regarding the coastal bluff protection project on your property, in their letter dated July 26, 2013.

Jeannine Manna of the Coastal Commission notes that Del Monte Forest Land Use Plan (LUP) states, "New development shall be sited and designed to minimize risk from geologic, flood, or fire hazards; to assure stability and structural integrity; and to not threaten the stability of a site, contribute significantly to erosion, geologic instability, or destruction of the site or surrounding areas." This is Policy 38 of the 2012 Del Monte Forest LUP.

She indicates that "Without proper drainage facilities, the bluff could become saturated, decreasing the stability of the protection, and possibly resulting in loss of large portions of the bluff. Altering the drainage pattern of the site could also exacerbate erosion on other portions of the bluff. Finally, as most of the bluff protection occurs only along the upper portion of the bluff, increased erosion, which would be exacerbated by future sea level rise, would eventually also lead to undermining of the structure as built. Therefore, it is not clear that the structure has been designed to assure structural stability and integrity, consistent with the Del Monte Forest LUP Hazards policy."

We have examined the drainage facilities in the area of the erosion control fascia that is being permitted, and find that drainage is well controlled. It does not appear that the drainage patterns at the site are adversely impacting the site.

Mr. Peter Read
Project No. M6913
3158 Seventeen Mile Drive
9 August 2013
Page 2

The erosion control fascia is protecting the weaker terrace deposits, located above the erosion resistant granite, from erosion. We understand that the limits of the erosion fascia were selected to reduce erosion of these weaker earth materials, while minimizing the amount of erosion control that was implemented.

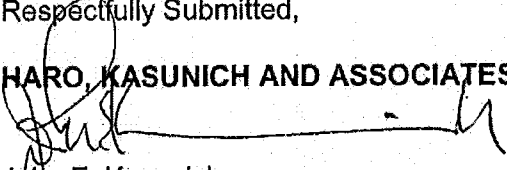
The erosion control fascia is not an engineered retaining wall; rather it is an erosion control fascia. It provides greater stability and erosion control than other potential erosion control treatments, such as jute netting or geotextile treatments. It should help preserve the integrity of the bluff and prevent erosion during ocean wave impact.

The erosion control fascia should not threaten the stability of a site, nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding areas.

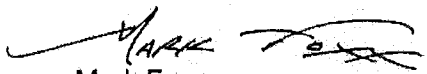
If you have any questions concerning the data or conclusions presented in this report, please call our office.

Respectfully Submitted,

HARO, KASUNICH AND ASSOCIATES, INC.



John E. Kasunich
G.E. 455
C.E. 33177



Mark Foxx
C.E.G. 1493

JEK/MF/sr

Copies: 4 to Addressee (+ email)
1 to Gary Griggs (by email)
1 to File

Exhibit K

Additional Correspondence from Applicant's Geologist and Coastal Commission

Schubert, Bob J. x5183

From: Gary Griggs [griggs@ucsc.edu]
Sent: Tuesday, September 24, 2013 6:53 PM
To: Schubert, Bob J. x5183
Subject: Read home flooding
Attachments: Read Home flooding012.pdf; Read Home flooding013.pdf; Read Home flooding014.pdf

Hi Bob,

I was able to obtain the attached photographs from Mr. Read's caretaker, Don Ritter, who wasn't working on the property at the time. These photographs clearly show water on the floor of two rooms facing the ocean, while the home was under construction, and the wave conditions fronting the home.

I have no personal account yet of what the conditions were like, other than what I indicated previously, which was from the Haro Kasunich report from 2002 that stated "During the strong El Nino storms of February 1998 wave action impacted the residence, which was then under construction". While the report was done by Haro Kasunich, the engineer who wrote the report, Elizabeth Mitchell, is now with another firm in the area (Pacific Crest Engineering), and who John Kasunich was going to contact but hasn't thus far, so I will attempt to contact her tomorrow. But I wanted to provide the photographs I was able to obtain.

gary

--

*Gary Griggs
Distinguished Professor of Earth and Planetary Sciences
Director Institute of Marine Sciences
University of California, Santa Cruz, CA 95064
(831) 459-5006 - fax (831) 459-4882*







Schubert, Bob J. x5183

From: Gary Griggs [griggs@ucsc.edu]
Sent: Friday, September 20, 2013 2:25 PM
To: Schubert, Bob J. x5183
Subject: Protection of Read Home

Hi Bob,

I had a conversation with Peter Read an hour ago and mentioned that I had only recently read in an earlier geologic report about his foundation and home being inundated while under construction during the very large 1997-98 El Nino event. Peter said he was at the site immediately afterwards and while there was a lot of granite immediately in front of the house that was being cut and trimmed for the walls of the house, that waves washed over the through the rock and flooded at least the east end of the house, his den was full of water. He said he had photographs of this but is leaving the country tomorrow until the 7th so won't have time to dig them out before he leaves.

I think this makes the case of the risk of flooding far stronger, something that Katie had asked about earlier but I didn't have first hand information on. This isn't a hypothetical but has happened and were it to happen again (e.g. without the protective structure) damage would be very significant to the home.

I know I have provided/submitted a considerable amount of geologic and engineering information to you and that as you had indicated in our first call, you are not a coastal geologist, so there may well be questions or uncertainties in your mind. I am happy to come down to Salinas and meet if you feel it would help you get a clearer sense of the risks on the site or if I can provide additional information of explanation.

Thanks again Bob,

gary

--

*Gary Griggs
Distinguished Professor of Earth and Planetary Sciences
Director Institute of Marine Sciences
University of California, Santa Cruz, CA 95064
(831) 459-5006 - fax (831) 459-4882*

Schubert, Bob J. x5183

From: Gary Griggs [griggs@ucsc.edu]
Sent: Thursday, September 19, 2013 8:50 AM
To: Schubert, Bob J. x5183
Subject: Re: FW: Read seawall

Bob,

Good questions.

Several points that I hope clarify:

- Bluff erosion is an episodic process as I have explained in previous reports, letters and responses. Average erosion rates are just that, averages over time. But it is typically the large events that remove the most material, large events like the El Nino winters of 1982-83, 1997-98, and 2009-10, when we may lose 10 feet of bluff overnight. Simply using an average erosion rate to determine the life time of a structure, however, is not the best approach because a large event can move the edge back very quickly overnight.
- Bluff or cliff erosion can be determined from precise survey or parcel maps (which may or may not be available), aerial photographs (which are most often used but have their own challenges due to scale, clarity, vegetation, recognition of bluff edge, etc.). The first values I listed (7-10 ft) were from survey maps where edge of bluff was delineated. The second set were taken from aerial images on Google Earth, some are excellent, some are older or not as clear, so while they indicate higher amounts of retreat, and cover several more recent years, are probably less precise. I therefore gave a range of values as indicative of the real situation.
- What is also critical to keep in mind is that sea level is rising at an increasing rate, and the projected values for 2030, 2050 or 2100 will significantly increase these historic erosion rates.

Does this answer your questions Bob?

gary

On Thu, Sep 19, 2013 at 8:25 AM, Schubert, Bob J. x5183 <SchubertBJ@co.monterey.ca.us> wrote:

Gary,

I understand your first paragraph. However, the second paragraph seems to contradict the first one. In addition, if the bluff is retreating an average of 0.5 ft/year, and given the estimated 200 year life of the home, wouldn't the estimated retreat during the lifetime of the home be 100 feet?

Bob Schubert, AICP

Senior Planner

Monterey County

RMA-Planning Department

(831) 755-5183

From: Gary Griggs [mailto:griggs@ucsc.edu]
Sent: Wednesday, September 18, 2013 9:37 PM
To: Schubert, Bob J. x5183
Subject: Re: FW: Read seawall

Bob,

Looking back at prior survey maps, I calculated that 7 to 10 feet of erosion of the bluff edge had taken place directly in front of the Read home between 1996 and 2010. Survey maps are quite accurate as they are based on actual ground measurements.

Using Google Earth, and comparing historical aerial photo imagery (which is more difficult due to the differences in resolution or clarity of different satellite images), i determined that total retreat of the bluff edge between 1998 (when house was built) and 2012, ranged from about 17 to 24 feet. My best estimate is retreat of 10 to 15 feet over the lifetime of the home.

Gary

On Wed, Sep 18, 2013 at 10:21 AM, Schubert, Bob J. x5183 <SchubertBJ@co.monterey.ca.us> wrote:

Gary,

Yes, I received the summary and it is very helpful. I do have one question. Approximately how many feet has the bluff eroded since the house was built in 1998?

Bob Schubert, AICP

Senior Planner

Monterey County

RMA-Planning Department

(831) 755-5183

From: Gary Griggs [mailto:griggs@ucsc.edu]

Sent: Wednesday, September 18, 2013 9:31 AM

To: Schubert, Bob J. x5183; Holm, Carl P. x5103; Hickman, Wanda x5285; John Bridges; Peter Read

Subject: Re: FW: Read seawall

Hi Bob,

I hope you received my summary of the need for the protection at the Read house site sent yesterday. What I think is also important regarding this project, in contrast to many other coastal protection projects, is that the bluff top fascia has no visual impacts- it is not visible to the public, and is indistinguishable from the native rock to anyone standing directly in front of it. Having studied seawalls and their impacts along the California coast for the past 30 years, I can say that after a detailed assessment of the Read protection, that it has no measurable or significant environmental impacts.

Please let me know if you want to discuss further.

thanks Bob,

gary

Schubert, Bob J. x5183

From: Gary Griggs [griggs@ucsc.edu]
Sent: Tuesday, September 17, 2013 11:57 AM
To: Schubert, Bob J. x5183
Cc: (jbridges@fentonkeller.com); Holm, Carl P. x5103; Hickman, Wanda x5285
Subject: Re: FW: Read seawall
Attachments: Read Risk Summary.docx

Bob,

Thanks again for forwarding the Coastal Commission input from Katie Butler. I have addressed these issues and attempted to summarize the reasons and evidence for the Read home being at a significant risk to coastal hazards in the attached document. Please let me know if you feel a phone conversation would be helpful or useful, or if I can provide photographs to document this explanation.

gary

On Wed, Sep 11, 2013 at 3:36 PM, Schubert, Bob J. x5183 <SchubertBJ@co.monterey.ca.us> wrote:

John/Gary,

fyi

Bob Schubert, AICP

Senior Planner

Monterey County

RMA-Planning Department

(831) 755-5183

From: Butler, Katie@Coastal [mailto:Katie.Butler@coastal.ca.gov]
Sent: Wednesday, September 11, 2013 1:08 PM
To: Schubert, Bob J. x5183
Cc: Cavalieri, Madeline@Coastal; Montano, Ramon x5169
Subject: Read seawall

September 17, 2013

Hi Bob,

I wanted to follow up on the response from Katie at the Coastal Commission, and provide a summary of why I believe that there is a strong need for protection at the Read home. To keep this focused and brief I am going to use a bullet approach.

- There is an erosion hazard in front of the Read home, although using only the average erosion rate and distance from the bluff edge to the front of the home would suggest that the erosion process would take decades before the bluff edge approached the front of the home. Erosion is an episodic process and several very large storms at times of high tide and elevated sea levels could reduce the distance quickly. A rising sea level will also shorten this time period.
- There are two documented instances over the past 15 years (February 1998 and January 2008) when wave overtopping of the low bluff and runup reached the house site (in 1998 the house was still under construction and an earlier report on this event states "*wave action impacted the residence, which was then under construction*"- I am now trying to find out more details on this event), and came very close in 2008, which was not an El Niño year.
- Wave runup models have been run at two different times in the past, which indicate that without any bluff protection, and with present location of the bluff edge, that wave runup could reach two feet above the floor level of the home. With continued recession of the bluff edge, the runup gets significantly greater and could reach 6 to nearly 9 feet above the floor level (with 11 and 22 feet of recession respectively). With existing protection and recurved wall, extreme projected wave runup would be just below floor level. I don't believe there is any question from the wave runup analyses that seawater reaching 2 to 9 feet in elevation above the floor level is a very significant risk to the Read home and would cause major damage and losses, and that the existing protection reduces this risk to an acceptable level.
- Most of the major damage incurred along the central coast during the 1978, 1983 and 1997-98 El Niño events was due to wave runup and impact, rather than simply bluff erosion, although these will act in concert at the Read home site. In Capitola, Seacliff State Beach, Las Olas Drive in Aptos, Beach Drive in Rio del Mar, and Aptos Seascape, to name a few, the damages to businesses, homes and recreational facilities was due to wave runup and overtopping. I can provide graphic images of this damage if they would be useful.
- The Coastal Commission guidelines regarding future sea-level rise for revisions of Local Coastal Programs specifically refer to the need to address wave overtopping and runup. This hazard is also specifically addressed in the *State of California Sea-Level Rise Guidance Document* (CO-CAT-March 2013), prepared by and for all state agencies and states specifically (Page 4):

Consider storms and other extreme events. Coastal ecosystems, development, and public access are most at risk from storm events, including the confluence of large waves, storm surges, and high astronomical tides during a strong El Niño. Water levels reached during these large, short-term events have caused significant damage along the coast. For example, a strong El Niño combined with a series of storms during high-tide events caused more than \$200 million in damage (in 2010 dollars) to the California coast during the winter of 1982-83. In the next few decades, most of the damage along the coast will likely result from extreme events. Historical records are one of the main sources of information on the extremes that are possible, and the damages that can result. Planning activities and project design would be improved by considering impacts from extreme events.

- The Read home is unique along the 17-Mile Drive in being both the lowest in elevation and the closest to the shoreline, such that it is at a high risk of being impacted by wave overtopping and runup.

--

Gary Griggs

Distinguished Professor of Earth and Planetary Sciences

Director Institute of Marine Sciences

University of California, Santa Cruz, CA 95064

(831) 459-5006 - fax (831) 459-4882

Schubert, Bob J. x5183

From: Butler, Katie@Coastal [Katie.Butler@coastal.ca.gov]
Sent: Wednesday, September 11, 2013 1:08 PM
To: Schubert, Bob J. x5183
Cc: Cavalieri, Madeline@Coastal; Montano, Ramon x5169
Subject: Read seawall

Hi Bob,

We've discussed the Read seawall project more here (including with Mark Johnsson and Lesley Ewing, our staff geologist and engineer, respectively), and we don't see how the project could be approvable under LUP Policy 44. This policy allows seawalls when required to protect existing structures in danger from erosion. The materials provided by the applicant do not indicate an erosion hazard to the primary structure on the site (the house) now or in the near-term future. Dr. Griggs indicated that the seawall was needed to prevent/reduce wave uprush and flooding risk. Ocean waves have come close to the house twice in the last 15 years (1998 and 2008), but have not directly impacted the house. Furthermore, we understand that the recures at the top of the structure will reduce wave uprush, but will not stop overtopping from larger waves. It seems that some sort of flood protection barrier closer to the home would be more effective at reducing any flooding risk. We would also note that seawalls are not permitted by the LCP (or Coastal Act) for flooding.

We hope this helps with formulating County staff's recommendation. Please let me know if you want to discuss further.

Thanks,
Katie

Katie Butler
Coastal Planner
California Coastal Commission
725 Front Street, Suite 300
Santa Cruz, CA 95060
P: (831) 427-4863
F: (831) 427-4877
katie.butler@coastal.ca.gov
www.coastal.ca.gov

Exhibit L

**Geologic Report Focused on Wave Impact
Hazards, Coastal Bluff Erosion and
Shoreline Protection on the Read Property
dated August 2011 prepared by Gary Griggs**

RECEIVED

AUG 23 2011

MONTEREY COUNTY
PLANNING & BUILDING
INSPECTION DEPT.

GEOLOGIC REPORT FOCUSED ON WAVE IMPACT HAZARDS,
COASTAL BLUFF EROSION, AND SHORELINE PROTECTION
ON THE READ PROPERTY

3158 17-MILE DRIVE, PEBBLE BEACH
APN 008-491-14
MONTEREY COUNTY, CALIFORNIA
August 2011



Gary Griggs
Consulting Coastal Geologist
321 Alta Avenue, Santa Cruz, California
(831) 332-9318

GEOLOGIC REPORT FOCUSED ON WAVE IMPACT HAZARDS,
COASTAL BLUFF EROSION, AND SHORELINE PROTECTION
ON THE READ PROPERTY

CONTENTS

INTRODUCTION

GEOLOGICAL SETTING

DOCUMENTING COASTAL EROSION HISTORY AND RATES

- Previous Coastal Erosion Investigations
- Recent Evaluation of Coastal Erosion Rates and Hazards
- Bluff Overtopping

FUTURE INCREASES IN COASTAL HAZARD RISKS WITH CHANGING
CLIMATE: RISING SEA LEVELS AND LARGER WAVES

- Historic Sea Level Rise
- Future Sea Level Rise
- Changing Wave Climate Along the Central California Coast
- Increasing Exposure of the Read Home with Sea Level Rise and Increasing Wave Exposure
- Some Final Thoughts on Future Risks

MITIGATION OF FUTURE THREATS TO COASTAL BLUFF RETREAT AND FLOODING BY WAVE
OVERTOPPING

- Alternatives or Options for Mitigating the Risk of Future Erosion and Wave Impact
 - A. Do Nothing
 - B. Relocate Dwelling
 - C. Beach Nourishment
 - D. Bluff Protection

- Coastal Bluff Protection and Evaluation of Potential Impacts
 - A. Visual impacts
 - B. Impoundment or placement losses
 - C. Reduction of beach access: lateral or vertical
 - D. Loss of sand supply from eroding bluffs or cliffs
 - E. Passive erosion
 - F. Active erosion

CONCLUSIONS

REFERENCES

APPENDIX A

GEOLOGIC REPORT FOCUSED ON WAVE IMPACT HAZARDS, COASTAL BLUFF EROSION, AND SHORELINE PROTECTION ON THE READ PROPERTY

GEOLOGIC SETTING

The Read home (APN 008-491-14), is situated at 3158 on the 17-Mile Drive in Pebble Beach on the Monterey Peninsula (Figure 1). The parcel slopes gently towards the ocean and is vegetated with older Monterey Cypress trees. The site is underlain directly by soil and marine terrace deposits that rest on weathered granodiorite and then granodiorite bedrock. Where exposed in the low bluff along the northern side of the property and also in front of the home, the granitic bedrock appears to be somewhat resistant to erosion although jointing provides weakness zones for weathering and wave attack. The bedrock is also exposed in the intertidal and nearshore zone on both the northern and southern sides of the property. The granodiorite usually occurs as rounded outcrops due to weathering and erosion along joints or fractures.

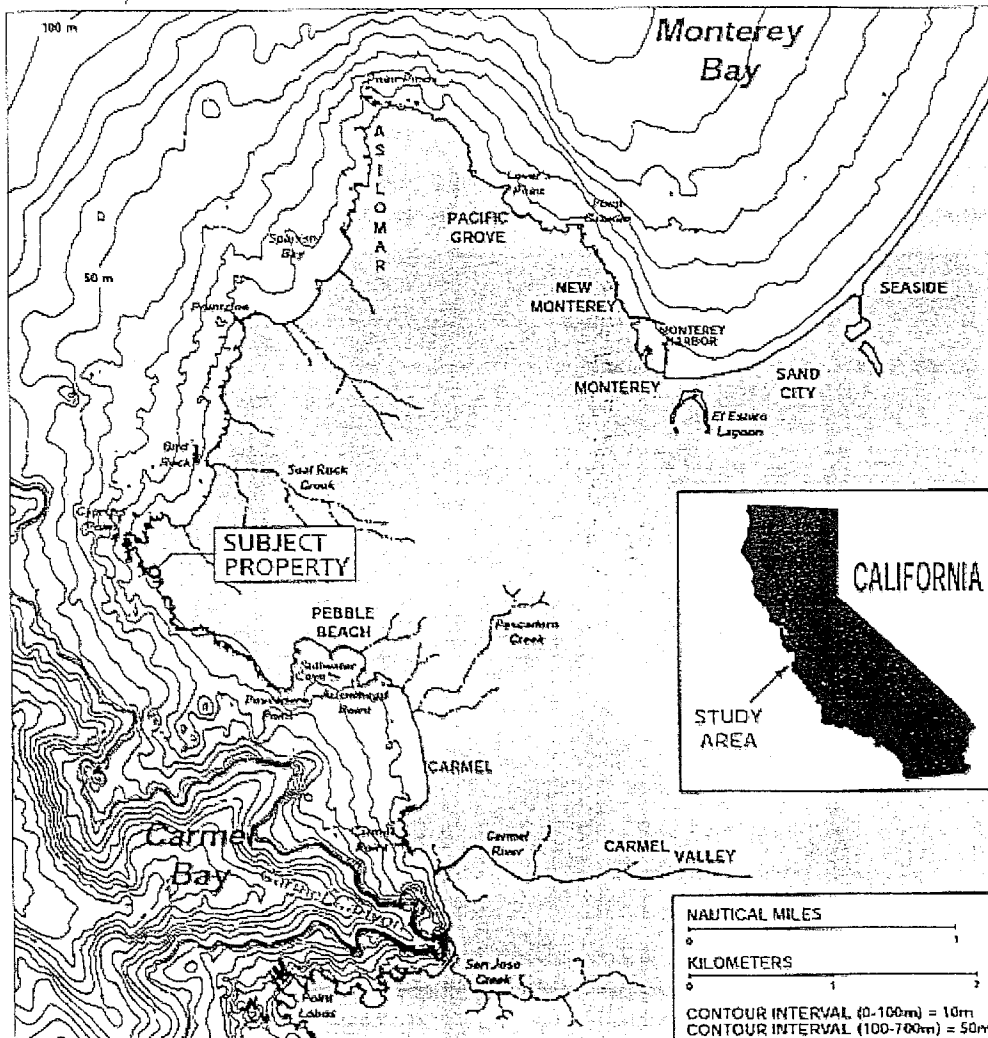


Figure 1. Map of Monterey Peninsula showing location of Read Parcel

The bedrock is more susceptible to erosion near the southern property line where a cove has formed. The bluff here is a near vertical rock face that appears to coincide with a joint set along which failure has taken place. Surface drainage from inland areas (the 17-Mile Drive and Crocker Grove) and groundwater seepage appear to have been concentrated on the top of the bedrock here and have led to weakening and failure of the granodiorite, as well as past gullying of the soils and weaker terrace deposits.

The soil, terrace deposits and weathered bedrock are very erosion prone in contrast to the more resistant granodiorite. They range in thickness from about 4 to 8 feet along the coastal bluff and include an overlying layer of very dark soil two to four feet thick, several feet terrace deposits (including sand, silt and clay), and a lower section of weathered granodiorite (Figure 2). The terrace deposits and soil are unconsolidated and offer little resistance to wave attack. The greater erosional resistance of the bedrock has led to the more rapid retreat of the weathered granite and surficial materials, exposing a bench midway up the 14-foot high bluff in the granitic rock.

The elevation of the top of the granitic bedrock varies across the front of the property. Along most of the northern side of the parcel, landward of Otter Cove beach, the granite is below beach level and not exposed (Figure 2). The cove itself and the beach are present because of the lower topographic elevations and the fact that the surface of the granitic bedrock is lower. The granite bedrock, along with the overlying terrace deposits, is higher on either side of the cove, including the area beneath and fronting the house site (Figure 2).

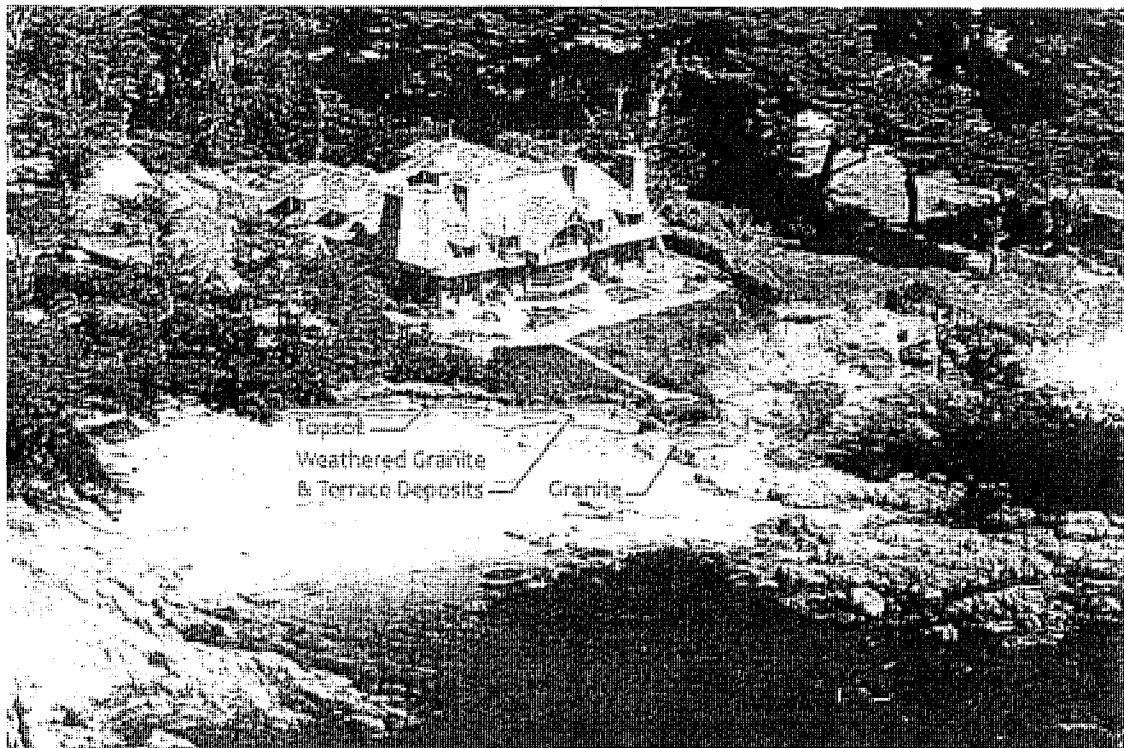


Figure 2. 2008 aerial photograph of the Read home showing the distribution of granite and overlying terrace deposits and soil across the bluff fronting the home site. Note general lack of beach below the bluff in front of the house.

The bedrock and the overlying terrace deposits and soils are prone to erosion from surface runoff and groundwater seepage, as well as from wave attack. It is evident here from the large driftwood logs at the back of Otter Cove beach that storm wave attack at high tides is common and that the low bluff has retreated farther inland than where granitic bedrock is exposed immediately to the north and south.

The elevation of the top of the bluff varies from +18 ft MSL along the southern property line, to +15 ft MSL at the rocky point immediately in front of the home, to about +14 ft MSL at the rear of Otter Cove beach¹ (Plate 1). Ground elevation in front of the home is just over +20 ft MSL. The Read home is at a significantly lower elevation and considerably closer to the bluff edge than any other homes along the 17-Mile Drive/Del Monte Forest area. It is far more exposed to wave run-up and impact, and will be more vulnerable in the years ahead as sea level rises and wave heights increase.

DOCUMENTING COASTAL EROSION HISTORY AND RATES

Both surface water runoff and groundwater seepage can gradually weaken and lead to failure of the surficial deposits. Wave attack at times of high tide and elevated sea level will also progressively erode the weathered granite bedrock through process of direct hydraulic impact, and also by abrasion through the grinding action of the granitic cobbles on the beach, which are carried back and forth across the shore face under large wave conditions. Weakening of the granitic bedrock starts along the joint surfaces and progresses deeper and laterally over time until blocks are detached, which end up as boulders and cobbles on the beach.

The Read property faces west to southwest and therefore is directly exposed to wave attack from the west and from the southwest, which is typical during El Niño winters. Less than a mile from the Read home, waves over 40 feet in height have been documented at a site known as Ghost Tree, off Pescadero Point (Figure 1), which once discovered has become a new magnet for big wave surfers. Waves with faces estimated at 50 to 60 feet rolled through on December 4, 2007, which took the life of big wave surfer.

Bluff erosion or “retreat rates” are usually determined by comparing the position of the bluff edge on either older vertical aerial photographs or old parcel survey maps and the present. By accurately locating the position of the bluff edge at different times in the past on sequen-

¹ Several different reference systems will be used in this report for elevations and each of these are defined here. Additional explanation for these differing tidal datums and their history and use is included in as Appendix A.

MSL refers to Mean Sea Level, which is the average height of the ocean surface over a specified time period and which serves as a reference for all land elevations. Mean Sea Level may also be referred to as “still water level,” or the level of the ocean with waves, tides and other disturbances removed.

NGVD, refers to National Geodetic Vertical Datum, and was a vertical control datum established for control in land surveying in the USA, originally based on tide gauge records in 1929 using 19 years of record (NGVD 29). This has been updated with the North American Vertical Datum (NAVD) of 1988, which also used 19 years of tide gauge records (NAVD 88).

Tide tables are all referenced to Mean Lower Low Water (MLLW) or the mean of the lower of the two low tides occurring each day along the west coast over a 19-year period. For the Monterey Bay area, 0.0 ft NGVD 1929 is at elevation 2.60 ft MLLW.

tial aerial photographs or maps, relative to some fixed landmark (a house, building, or road, for example) or through GPS coordinates, the total amount of retreat over the time period spanned by the photographs or maps can be determined. Dividing this total retreat distance by the number of years covered by the photographs or maps, produces an average annual erosion rate (in feet/year, for example).

Years of observing and documenting coastal erosion have made it evident, however, that bluff failure is an episodic process. While calculations may indicate an average retreat rate of one foot/year, rarely does the bluff fail in even one-foot increments. More typically, under conditions of elevated sea levels and large storm waves, a bluff may retreat five or ten feet in a single storm, and then remain stable for several years until further weakening or weathering of the bluff materials occur and another large storm hits. The longer the available map or aerial photographic record, the more accurate the results will be, simply because of the episodic nature of failure. A longer time period provides more opportunity to capture episodic events. In addition, aerial photographs vary in their quality, scale and resolution and can be difficult to work with unless you have considerable experience.

The reliability of calculated average bluff erosion rates may also be complicated by the time period selected or the time span covered by the aerial photographs or maps. Over the past several decades, oceanographers have recognized that the overall climate of the Pacific Ocean oscillates through cycles several decades long known as Pacific Decadal Oscillations (or PDO), which have been well documented (Figure 3). Warm or positive PDO cycles, for example, are characterized overall by warmer ocean conditions, more frequent El Niño events (Figure 4) with associated elevated sea levels, heavier rainfall, and large storm waves arriving from the west and southwest, which lead to enhanced coastal erosion and storm damage. During negative or cool PDO cycles, La Niña events are more frequent, ocean temperatures are cooler, rainfall is generally lower, and severe storms and large waves are less frequent (Figure 4).

If all aerial photographs used for an erosion analysis were from a cool PDO cycle, we would expect to determine lower than average bluff erosion rates. It is important to note that a cool, calmer, less stormy PDO cycle extended from about 1945 to 1978. This generally calm period along the California coast was the time when much of California's coastal development took place. In 1978, however, there was a change to a warm or positive PDO cycle, characterized by more and stronger El Niño events (Figure 4), elevated sea levels, and larger storm waves arriving from the west or southwest. This changing coastal storm climate led to significant coastal infrastructure and property damage in 1978, 1983 and 1997-98, for example.

The important wave attack and bluff erosion questions for the future, which affect the risks to the Read home and need to be addressed, include:

- 1] What has been the past history of bluff retreat and wave overtopping at the site?
- 2] What has happened in the past during severe storms or erosion events?
- 3] What wave attack and erosion hazards can likely be expected to occur in the future on this site?

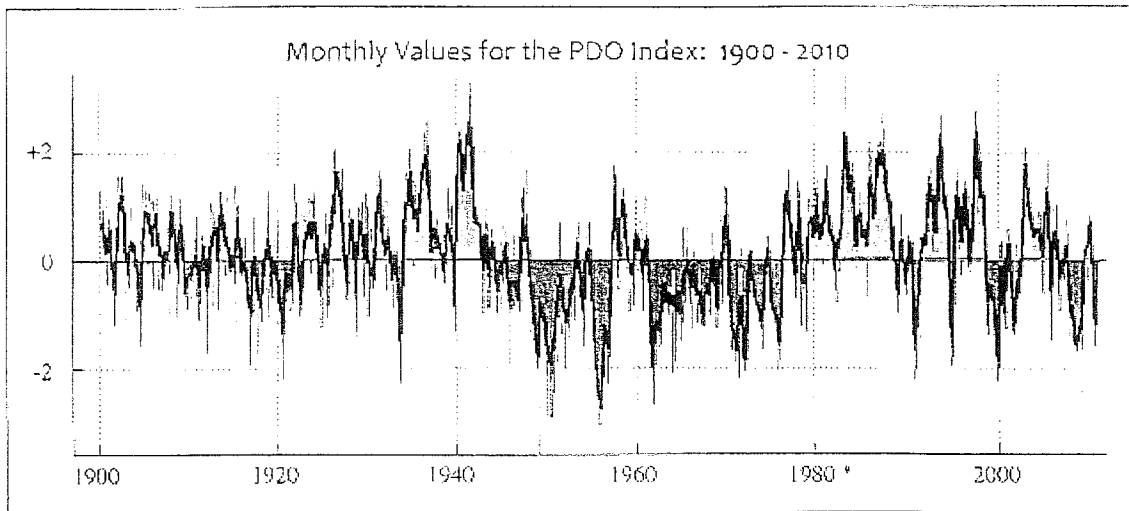


Figure 3. Pacific Decadal Oscillation (PDO) cycles for past century. Vertical axis is a dimensionless scale that was developed to include a number of atmospheric and meteorologic variables.

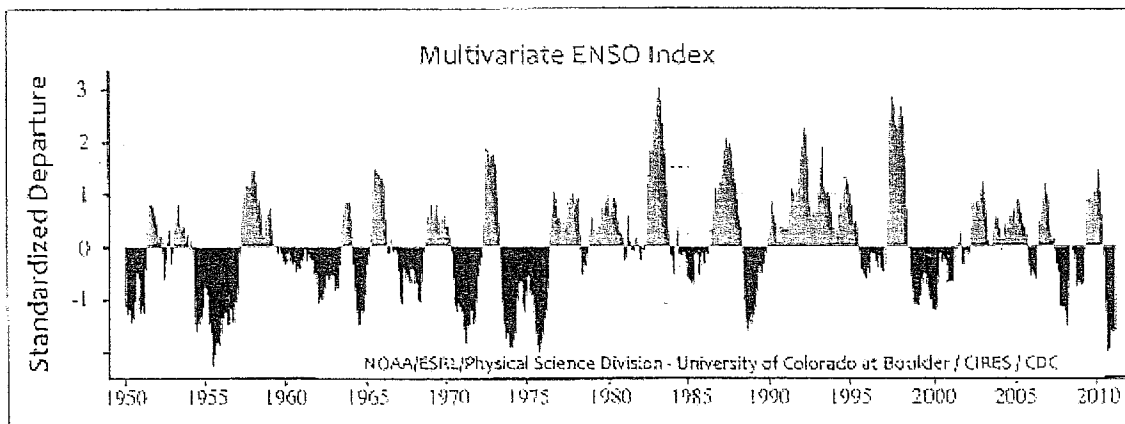


Figure 4. El Niño Southern Oscillation (ENSO) index from 1950 - 2010. Vertical axis is a dimensionless scale that was developed to include a number of atmospheric and meteorologic variables.

Previous Coastal Erosion Investigations

Rogers E. Johnson & Associates (REJ) completed the first erosion study for the site in 1987 using historical aerial photographs. The 1987 study determined that coastal erosion averaged about 0.6 to 0.7 ft/yr and would probably advance 30-35 feet inland from the existing bluff edge over the next 50 years (by 2037). In addition, REJ concluded that wave overtopping of the low bluff during large storms would probably result in wave run-up encroaching between 28 and 72 feet inland from the then bluff edge over the same 50-year period “due to low-lying nature of the property”. The different encroachment distances were at specific locations on the site based on bluff elevation and topography. The wave run-up analysis used a deep-water wave height of 35 feet (which was actually measured at the Monterey Bay buoy on January 5, 2008), a design wave height of 8.5 feet at the toe of the bluff, and a wave period of 12 seconds.

In a more recent report by Nielsen & Associates (2004), three cross-sections across the site surveyed by REJ in 1987 were compared with new surveys completed in 2004 in approximately the same locations. By comparing these profiles they concluded that between five and eight feet of erosion appears to have taken place in this 17-year interval. These differences produce average annual erosion rates of the bluff edge of 0.3 to 0.5 ft/year.

Nielsen & Associates concluded, however, that these rates were too conservative and used a safety factor of 1.5 to increase potential erosion rates from 0.3 and 0.5 ft/yr to 0.45 to 0.75 ft/yr. Using these rates, which decrease from north to south, setbacks for 50, 75 and 100 year periods were designated. The projected 75-yr erosion line based on those erosion rates intersects the guesthouse, and the projected 100-yr erosion line intersects the front of the Read home and passes through the garage/guest house (Figure 5). The architect of the home (International Design Group) has stated that it was designed for a 200-year life.

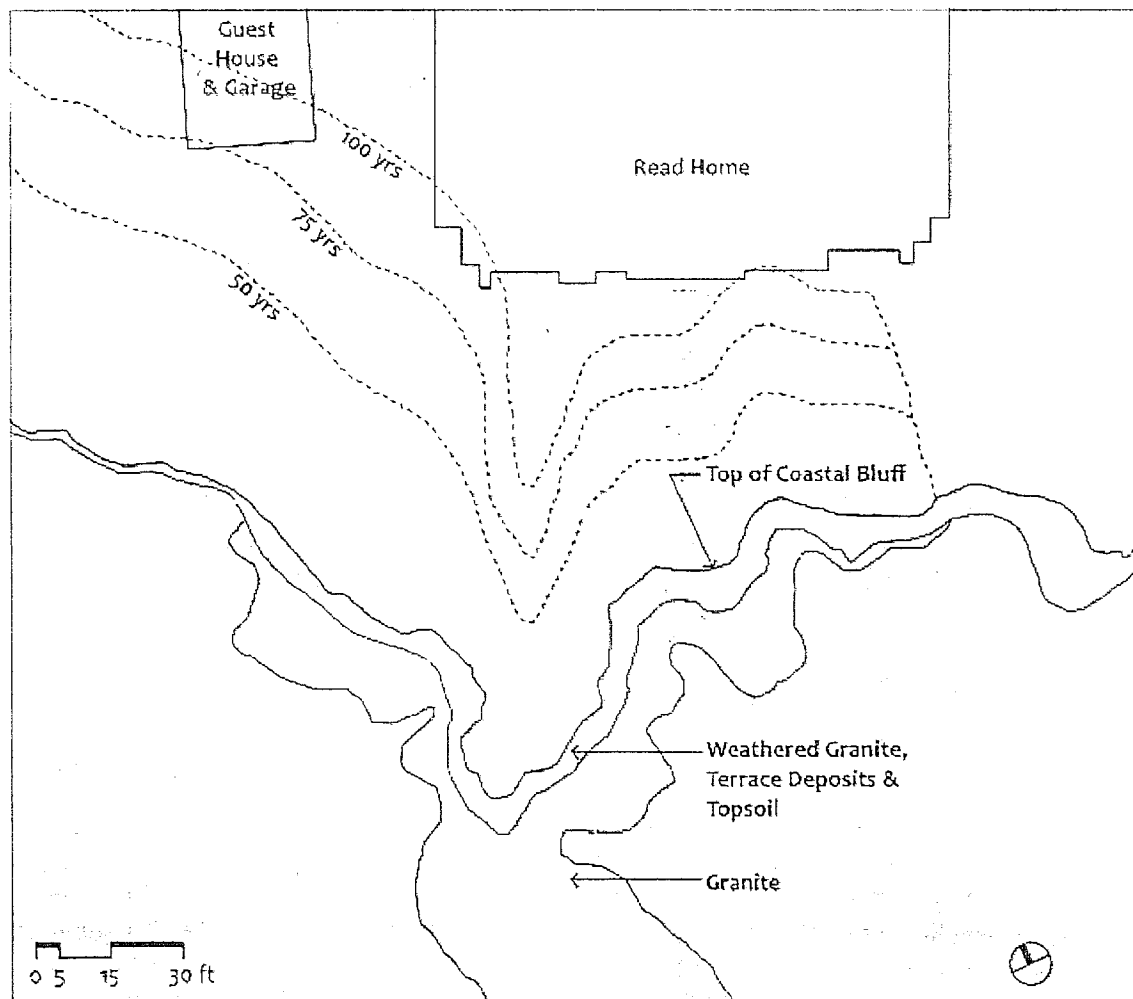


Figure 5. Projected 50, 75, 100 - year erosion lines from top of coastal bluff, from Nielsen and Associates (2004)

Recent Evaluation of Coastal Erosion Rates and Hazards

I supplemented the previous determinations of the rate of retreat of the bluff edge based on historic aerial photographs (REJ and Nielsen & Associates) by comparing the position of the bluff edge on a set of site surveys spanning the past 25 years.

Date	Survey
July 3, 1986	Sysorex
January 1, 2001	
February 6, 2004	Dunbar and Craig
June 2010	
March 4, 2011	Dunbar and Craig

Compared to aerial photographic interpretation, site surveys should be more accurate. In this case, the 1986 position of the bluff edge was compared to the most recent position, in 2010 and 2011. While these site surveys do cover the large El Niño of 1997-98, they do not include the most destructive El Niño of the past 50 years, the winter of 1982-93. REJ and Nielsen & Associates surveys should have captured the erosion from that event in the earlier aerial photographic analysis, however. Between 1986 and 2010, 3 to 5 feet of bluff top retreat occurred along the cove on the north side of the promontory immediately fronting the Read residence. These translate into an average of about 0.12 to 0.21 ft/yr of retreat over the past 24 years. At the point itself, 3-6 feet of erosion has taken place over the past 25 years, or 0.12 to 0.25 ft/yr of retreat. Proceeding southward towards the property line, erosion rates increase on average to 7 to 10 feet over this time period, or 0.30 to 0.42 ft/yr (Plate 1).

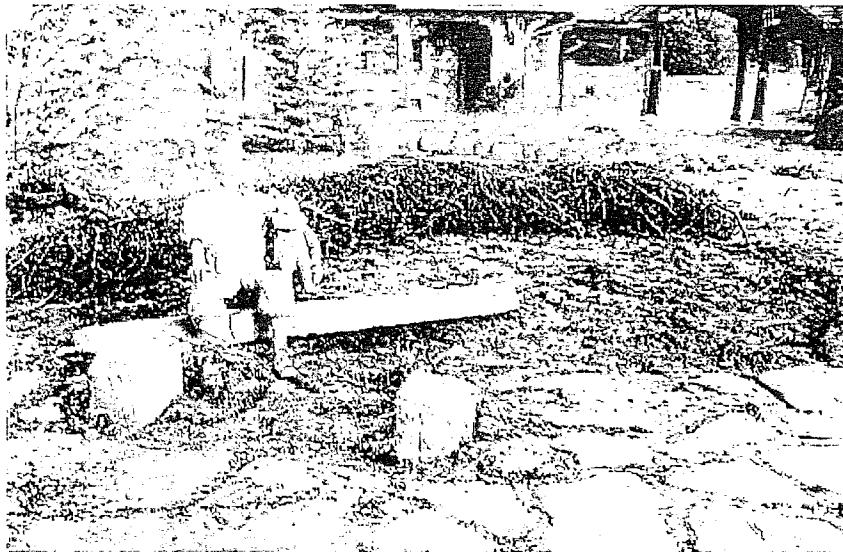
These values are very comparable to the 0.6 to 0.7 ft/yr calculated by REJ (1987), and the 0.45 to 0.75 ft/yr developed by Nielsen & Associates (2004), which span a longer time period covering a major ENSO event (1983). I conclude that an erosion rate of approximately 0.5 ft/yr is a reasonable value to use.

Bluff Overtopping

During a large storm on January 4 and 5, 2008, high waves overtopped the bluff in front of the Read home. On the afternoon of January 4 between 1400 and 1600, high tides reached a maximum of 6.0- 6.3 feet MLLW (at the Monterey harbor tide gage), 0.8 ft higher than predicted high tide. Wave overtopping of the bluff just to the west of the home overturned a very heavy stone bench and statue that was set 20 feet back from the bluff edge, pushing it landward several feet (Figures 6A and 6B). Wave run-up also stripped back the ice plant cover down to the soil for an additional 10 to 12 feet, or wave impact and scour reached over 30 feet inland of the bluff edge. Debris left behind by wave overtopping and runup indicates that seawater reached virtually to the back door of the Read home that evening.

Directly in front of the home, waves were photographed on the morning of January 5 overtopping the bluff, removing the vegetation and eroding the soils and terrace deposits (Figure 7). Tidal elevation at the time of the photographs was only 3.73 ft, or 2.6 ft below the maximum of the previous afternoon.

The combination of high tides, elevated sea level and large storms typically produces the greatest coastal erosion and property damage. These processes all coincided during the El Niño winter of 1983 and left over \$217 million in damages (in 2010 dollars) along the California coast. The high tides and large waves of early January 2008 provide an example of what can happen on the low-lying Read home site under conditions of elevated sea levels and large waves. The highest tide recorded on January 4, 2008 was 6.32 feet. This is nearly a foot lower than the maximum recorded that year of 7.24 feet; clearly sea level can get higher under the combined effects of an El Niño event, low atmospheric pressure, a high tide and large waves, and under these conditions, wave impact and bluff erosion would be greater with increased threats to the Read home. The 2008 bluff overtopping was not an extreme event.



Figures 6A and 6B. Statue and bench overturned and ground cover removal by wave overtopping on January 4, 2008. Photograph on March 18, 2011 for comparison. Note debris on pathway carried nearly to back door by wave overtopping and runup.

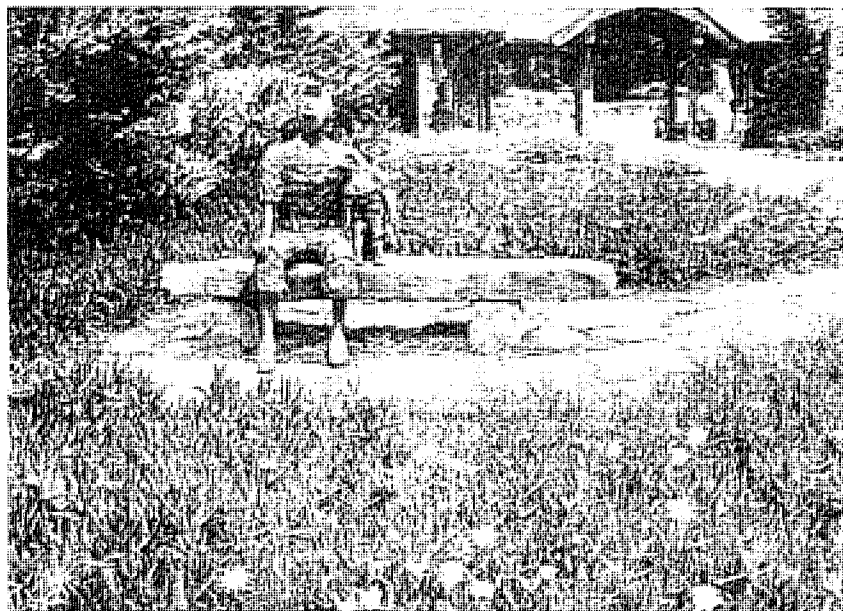




Figure 7. Wave overtopping the bluff immediately in front of the Read home at 10:15 on morning of January 5, 2008.

FUTURE INCREASES IN COASTAL HAZARDS RISKS WITH CHANGING CLIMATE: RISING SEA LEVELS AND LARGER WAVES

Historic Sea Level Rise

Sea level has been rising globally since the last Ice Age ended 18,000 years ago. There are important distinctions, however, between global and local sea level trends, which are necessary to understand in order to interpret the sea level history of any specific geographic area and then to assess vulnerabilities.

Just as the surface of the Earth is not flat, the surface of the oceans is also not flat, and the elevation of the ocean surface is changing regionally over short and long-term time periods. We often refer to *Global Sea Level*, which is the average height of all the Earth's oceans. *Global Sea Level Rise* refers to the currently observed annual rate of rise. This increase is attributed to changes in ocean volume due primarily to two factors: the melting of ice and the expansion of seawater as it warms. Melting of glaciers and continental ice masses, such as the large ice cover of Antarctica and the Greenland ice sheet, which are linked to changes in atmospheric temperature, can contribute significant amounts of freshwater to the ocean. Additionally, any increase in the overall temperature of the ocean creates an expansion of seawater (called thermal expansion), thereby increasing ocean volume and raising sea level. The Intergovernmental Panel on Climate Change (IPCC) 2007 Report estimates that global sea level has been rising at approximately 1.7-1.8 millimeters per year (mm/yr) over the past century, based on averaging tide gage measurements from stable coastlines around the world.

Beginning in 1993, the Topex-Poseidon and then Jason satellites have been able to accurately measure sea levels from space using satellite altimetry without having to separate out the local land effects, and have documented an average global sea level rise rate of ~ 3.1 mm/yr between 1993 and 2009 (Figure 8). This represents nearly a doubling of the 1.7-1.8 mm/yr rate used by the IPCC for the past century.

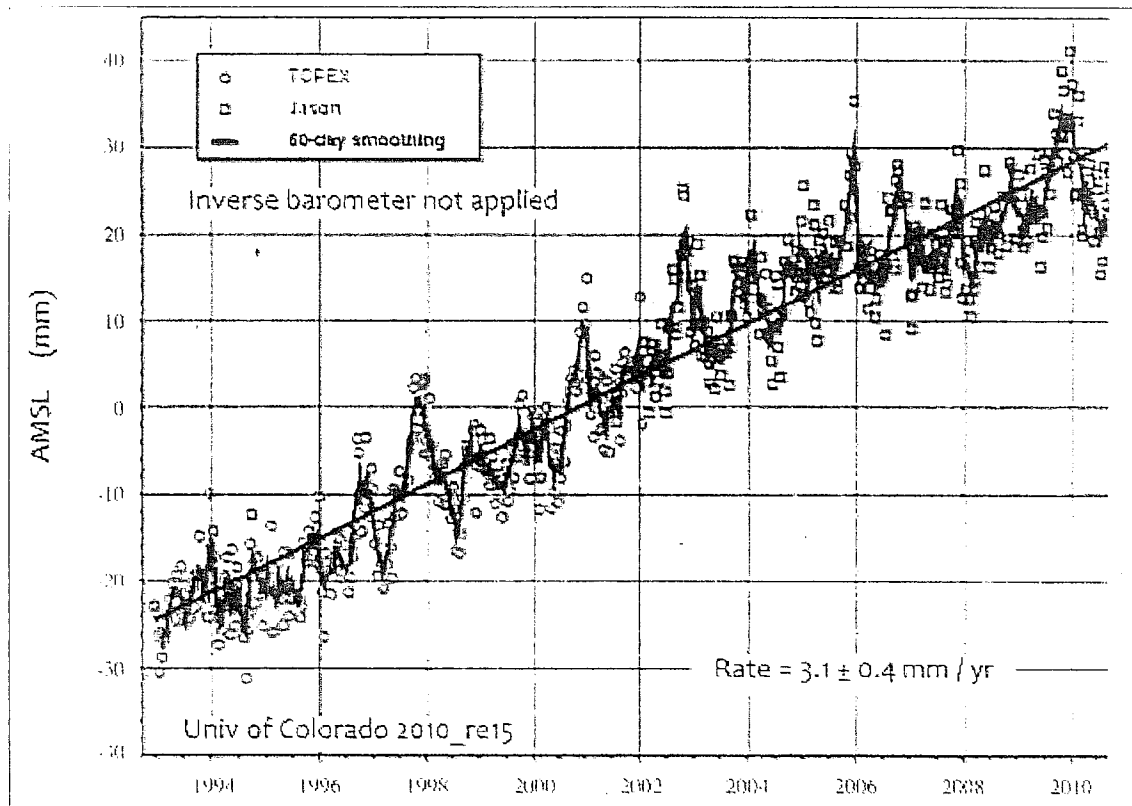


Figure 8. Satellite altimetry record of sea level rise since 1992

Tide gauges measure local sea level, which refers to the height of the water as recorded along the coast at specific locations. Water level measurements are referenced to stable benchmarks on land, and a known relationship is established. However, the measurements at any given station will include both global sea level rise and vertical land motion, such as local uplift or subsidence. Because the heights of both the land and the water are changing, the land-water interface can vary spatially and temporally, which is what tide gauges keep track of. Depending on the rates of vertical land motion, observed local sea level trends might differ greatly from the average global sea level rise, and also vary from one location to another depending upon regional uplift or subsidence of the land surface.

Sea level has been recorded at 12 different California coastal tide gauge stations extending from San Diego to Crescent City. Fortunately, the closest tide gauge to the Read parcel is in Monterey, only five miles to the northwest, and because both sites are on the granitic bedrock of the Monterey Peninsula, it is very reasonable to assume that the sea level record for Monterey is representative of the Pebble Beach area. The NOAA Monterey tide gauge station

was installed in 1973 and the best fit of the data over this 36-year period indicates a rise of 1.34 mm/yr (Figure 9).

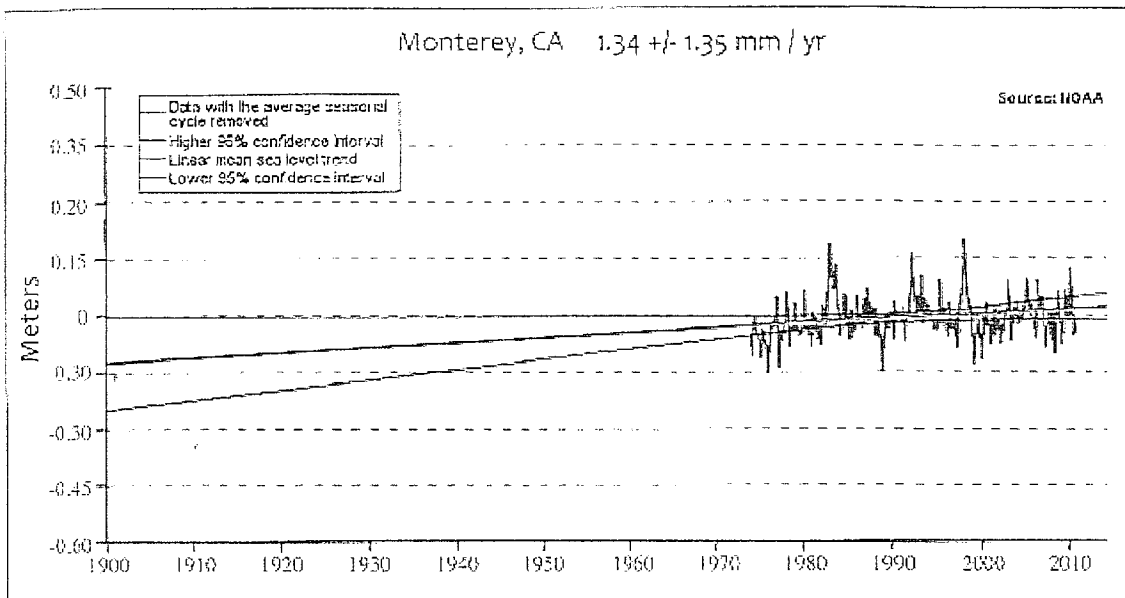


Figure 9. Sea level history from NOAA Monterey Tide Gauge

Future Sea Level Rise

Sea level rise in the years ahead will be an important factor affecting the future hazards from wave attack and coastal erosion at the Red home site. The state of California is focusing considerable attention at present on evaluating the rate of future sea level rise, which will affect existing and future development and infrastructure, investment and responsibilities of a large number of state agencies (CalTrans, Parks and Recreation, Fish and Game, Water Resources, Coastal Conservancy and the Coastal Commission, among others), and the risks they will face or must adapt to.

The state, through the Governor's Ocean Protection Council and Science Advisory Team, as well as the PIER program of the California Energy Commission, has focused significant effort and research over the past several years on sea level rise rates and also impacts of future sea level rise on California's public and private shoreline development and infrastructure. Through the efforts of the Coastal and Ocean Working Group of the California Climate Action Team (CO-CAT, which includes 16 state agencies, including the California Coastal Commission), a State of California Sea-Level Rise Interim Guidance Document has been prepared, which adopts a range of sea level rise values to be used by state agencies. Additionally, the three western states' governors, as well as a number of federal agencies, have requested a formal study by the National Academy of Sciences to evaluate future sea level rise along the West Coast to determine the best possible values or elevations to use for 2030, 2050 and 2100. This study is now underway and a final report is scheduled for completion in early 2012. The author of this report has chaired the Ocean Protection Council's Science Advisory Team for the past year and has been working with the CO-CAT, is a member of the National Academy of Sciences Sea

Level Rise Committee, and is also preparing a Sea Level Rise Adaptation Guide for California's coastal communities, so is engaged on these issues.

The interim sea level rise projections adopted by the Ocean Protection Council for all state agencies include ranges based on different global greenhouse gas emission scenarios for three future time periods. The predicted value of sea level rise for the next 20 years (2030) is 7 inches, while the average rise over the past century was only about 6 inches. The adoption of these higher values is indicative of the concern that California state agencies have regarding the increasing risks to public and private coastal development and infrastructure in the decades ahead based on scientific input, and also the need to begin to plan now for what is likely to occur in the future.

Year		Average of Models	Range of Models
2030		7 in (18 cm)	5-8 in (13-21 cm)
2050		14 in (36 cm)	10-17 in (26-43 cm)
2070	Low	23 in (59 cm)	17-27 in (43-70 cm)
	Medium	24 in (62 cm)	18-29 in (46-74 cm)
	High	27 in (69 cm)	20-32 in (51-81 cm)
2100	Low	40 in (101 cm)	31-50 in (78-128 cm)
	Medium	47 in (121 cm)	37-60 in (95-152 cm)
	High	55 in (140 cm)	43-69 in (110-176 cm)

Table 1. Future sea level rise scenarios in inches (or centimeters) using 2000 as a baseline, adopted by the California Ocean Protection Council.

More specifically, the California Coastal Commission, based on their increasing concern with future sea level rise is requesting updated language be added to Local Coastal Plans:

Development at nearshore sites shall comply with the following standards.

A. General requirements for coastal hazard analysis

- 1. Using the best available scientific information with respect to the level of future sea level rise, the effects of long-range sea level rise shall be considered in the preparation of findings and recommendations for all requisite geologic, geotechnical, hydrologic, and engineering investigations.*
- 2. All development located at nearshore sites shall be analyzed for potential coastal hazards from erosion, flooding, wave attack, scour and other conditions in conjunction with sea level rise scenarios indicated below depending on the type of development, and shall also consider localized uplift or subsidence, tide range, wave climate, local topography, bathymetry, geologic conditions, and potential tsunami inundation areas.*
- 3. All input parameters for hazard analysis shall be clearly described in the analysis and, if judgment was used to choose between a range of values, the basis for the selection should be provided.*
- 4. At a minimum, sea level rise scenarios shall assume 16 inches of sea level rise by 2050 and 55 inches (4.6 feet) of sea level rise by 2100.*

5. *The hazard analysis shall be used to identify current and future site hazards, to help guide site design and hazard mitigation and identify sea level rise thresholds after which limitations in the development's design and siting would cause the improvements to become significantly less stable.*

Changing Wave Climate Along the Central California Coast

In addition to a rising sea level, all existing or proposed coastal development will need to plan to deal with or resist an increasing storm wave climate. Long-term wave data from 24 different wave buoys located off the coasts of California, Oregon and Washington provide clear evidence of increasing wave heights off the west coast. While it is not yet one hundred percent certain that these increased wave heights are related to overall climate change, there is a high probability that these are in fact related.

Storlazzi and Wingfield (2005) analyzed hourly wave data along the central California coast recorded between 1980 and 2002 at eight different offshore buoys in order to investigate long-term trends of wave heights and other oceanographic parameters. Significantly different trends were observed during El Niño and La Niña years. The observations indicate that along the central coast, significant wave heights (H_{sig} , or the average of the highest 1/3 of the waves) over the 22-year period between 1980 and 2002 increased at an average rate of nearly one inch per year (2.1 cm/yr), or about 1.5 feet over this period.

Based on the buoy records, Storlazzi and Wingfield also determined the average recurrence intervals or return periods for waves of different significant wave heights. These are not the highest waves that can be expected, but the average of the highest 1/3 of the waves, so individual waves could be considerably larger.

Significant wave heights (H_{sig}) in Monterey Bay of:

- 24 ft can be expected on average every 2 years
- 31.3 ft can be expected on average every 10 years
- 34.7 ft can be expected on average every 25 years
- 37.3 ft can be expected on average every 50 years
- 41.2 ft can be expected on average every 100 years

It is also important to keep in mind that these wave heights are based on the 22-year record between 1980 and 2002, but the trend is for increasing heights so that these values in all likelihood will continue to increase over time.

A search of the Monterey Bay buoy historic data for occurrences of large waves (the search was defined by at least 4 hours of wave heights of greater than 6 meters or ~20 feet) indicate that in the 12 year period between 1987 and 1999 there were no such events. Conditions changed beginning in 2000, however, and between January 2000 and January 2010, there have been 49 occurrences of waves greater than 20 ft for at least 4 hours, with five occurring in January of 2010 alone (Figure 10). This represents a significant recent increase in wave height and energy.

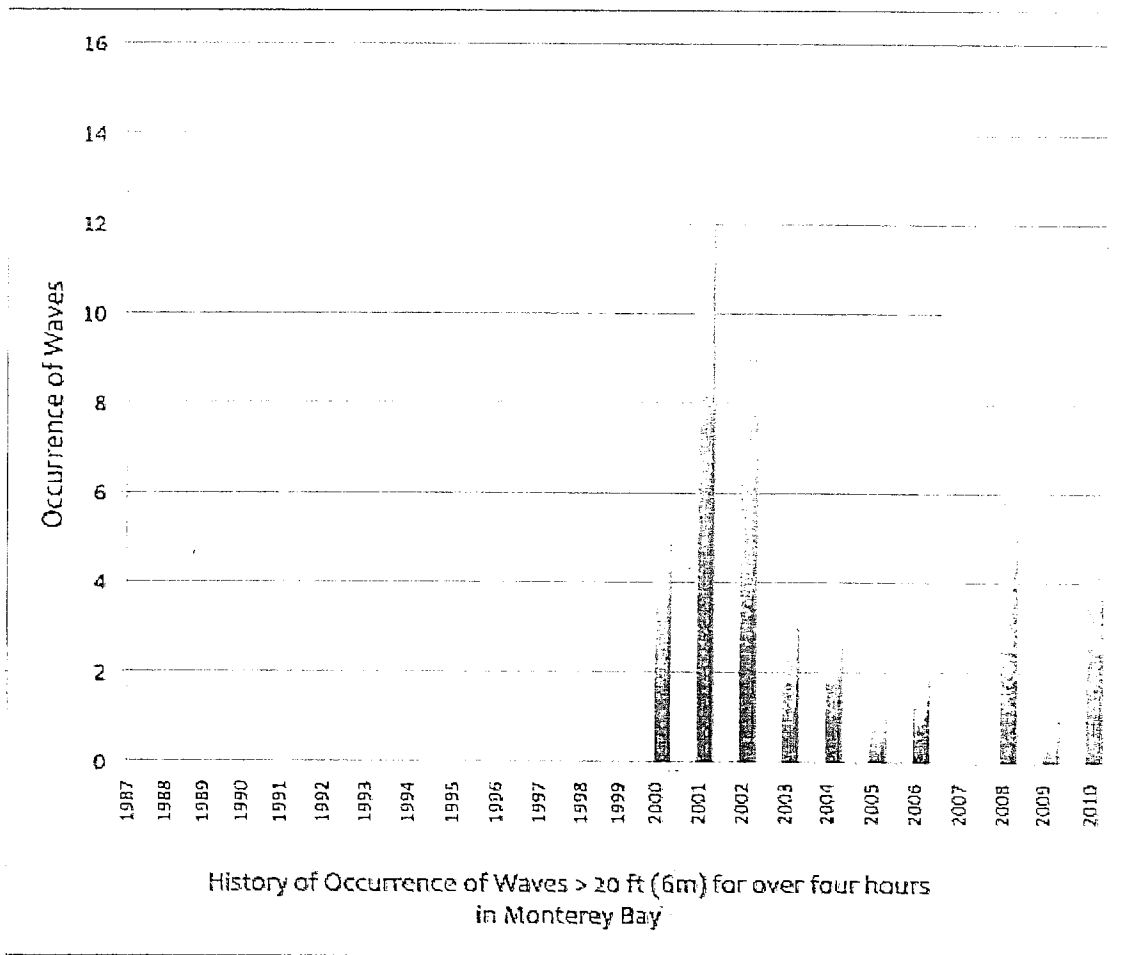


Figure 10. Historic occurrence of waves greater than 20 ft (6 m) for over 4 hours at the Monterey Bay, California Data Information Program (CDIP) buoy.

Seymour (2011) in a very recent larger scale analysis reports on evidence for changes in the Northeast Pacific wave climate using the occurrence of waves with mean heights > 6 meters for over 24 hours as an indicator. He divides the record analyzed into two 12-year epochs: 1984-1995 and 1996-2007. For the area he defines as Northern California (extending from the Oregon border to Pt. Conception), which includes the Monterey Bay area, there is a substantial change in wave climate between the first and second epochs, with only 4 of these large events in the 1984-1995 epoch and 19 in the recent epoch.

Lowering the wave height threshold to 5 m (~16 feet), and searching for the events when waves exceeded 5 m or 6 m in the same Central and Northern California region also reveals a significant increase in wave height (and therefore energy) beginning in 1994 (Figure 11). The wave buoys are all indicating substantial increases in wave heights along the central coast, which need to be considered, as they will affect the future risks to any coastal projects, new or existing.

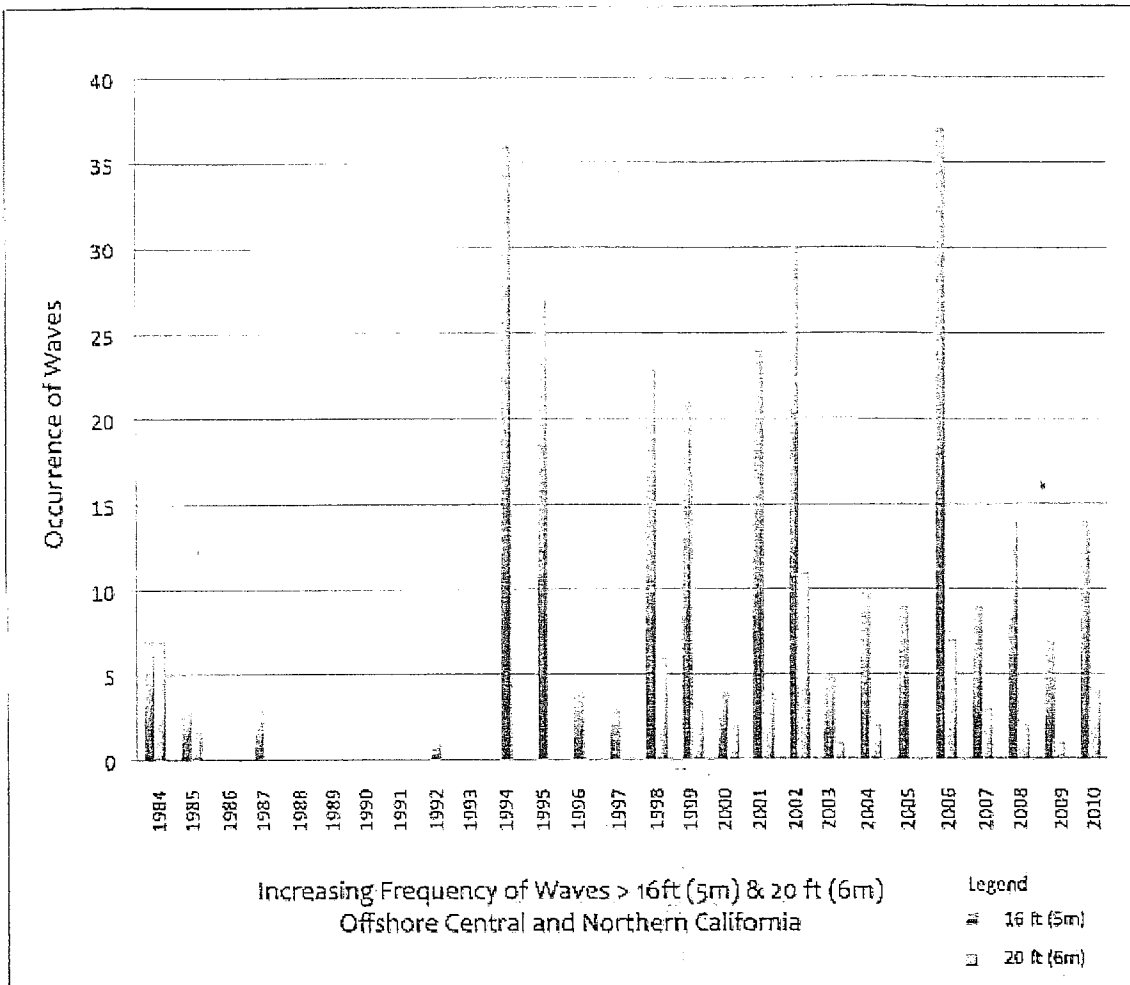


Figure 11. Increasing frequency of waves of at least 16 ft (5m) or 20 ft (6m) in height offshore Central and Northern California.

Increasing Exposure of the Read Home with Sea Level Rise and Increasing Wave Heights

The Read home is a very substantial structure, which has a potential future lifetime of at least 200 years. The following risk analysis was carried out based on the above Coastal Commission revised LCP language that new structures, infrastructure or improvements are to be designed and sited assuming a 55-inch sea level rise. In order to assess the probability or risk of future sea level rise and wave attack threatening the Read home we need to consider what has occurred in the past on the site.

The top of the bluff fronting the Read home varies in elevation from 16 to 18 ft (Plate 1; with all elevations referenced to NGVD 1929; see footnote on page 4 for explanations of elevation datums). The elevation of the bedrock bench along the base of the bluff is 9 to 10 feet. The highest water level recorded during the 37 history of the Monterey Tide Gage was on January 27, 1983 during a large El Niño event, which was elevation 7.88 MLLW. NOAA records this event as 11.26 ft on the Monterey Station Datum, but this needs to have two corrections made

in order to compare it to the elevations on the topographic map of the site. First, 3.38 ft has to be subtracted to reference it to the tidal datum of MLLW ($11.26\text{ ft} - 3.38\text{ ft} = 7.88\text{ ft}$) and then 2.60 ft must be subtracted to reference it to NGVD 1929 ($7.88\text{ ft} - 2.60\text{ ft} = 5.28\text{ ft}$). Still water level at the site (or the level of the ocean surface with waves, tides and other disturbances removed), therefore, during the highest sea level of the past 37 years (January 27, 1983), would have been at the 5.28 ft contour line on the site map. This was ~10 to 12 ft below the top of the bluff.

As described earlier, on January 4-5, 2008, the largest waves in a number of years, combined with high tides, overtopped the bluff in front of the Read home (Figure 7). Waves were photographed overtopping the bluff on the morning of January 5 at a tide of 3.73 ft MLLW, or at an average tide level. The previous afternoon, high tides reached a maximum of 6.32 ft MLLW, or 2.6 ft above the tide level when the photographs were taken the next morning showing wave overtopping (Figure 7). For comparison, the maximum tide level recorded at Monterey in January 1983 was 7.88 ft MLLW. This is 4.15 ft above the tide level on January 5, 2008 that produced bluff over topping, and 1.56 ft above the level that pushed the heavy stone bench and statue over and ripped up vegetation at least 30 feet back from the bluff edge. These comparisons provide clear evidence of the amount of wave run-up and overtopping that can occur at this low-lying site.

The Monterey Bay Wave Buoy (46042) recorded a maximum wave height of 32.6 feet on January 5, 2008. This was the greatest wave height recorded at this buoy over the 23-year period from January 1987 to January 2010.

Applying the state and Coastal Commission recommended guidelines for future sea level rise of 16 inches by 2050 and 55 inches by 2100 increases the exposure of the site considerably. An additional 16 inches (2050) would raise still water level at MHHW to 4.07 ft (NGVD 1929), for example, or only 1.2 feet below the highest sea level ever recorded at the Monterey gauge, and about 3 feet higher than the sea level during wave over topping on January 5, 2008. A 55-inch increase (2100) would elevate MHHW to 7.32 (NGVD 1929) at the site. This is over two feet higher than the maximum sea level ever recorded at Monterey, and 3.6 feet higher than the tide stage when the stone statue was overturned and scouring occurred 30 feet inland from the bluff edge. This projected 2100 sea level would be 6.2 feet higher than the tide level when the bluff overtopping was photographed on January 5, 2008. These projected higher sea level conditions, whether 2050 or 2100, would generate much different, and far more severe runup conditions on the site than are presently experienced.

The potential for bluff top overtopping, scour and erosion would be significantly increased under the projected 2050 sea levels, and very substantially increased with projected 2100 levels. Conditions are projected to get far more severe and erosion and overtopping more frequent than experienced in early January 2008, in large part because this site is very low-lying and the home is relatively close to the bluff edge.

All evidence indicates that a significant increase in wave heights is taking place along the central coast and that larger waves are occurring more frequently. Additionally, the Read coastline faces southwest such that the larger waves during ENSO events, which typically approach

directly from the southwest with little refraction, will impact this property without any significant loss of energy.

Simply put, this means that the waves that reach the bluffs fronting the Read property in the future will be larger and contain more energy, and that larger wave will occur more often. A continuing rise in sea level will elevate the water level at the shoreline such that there will be a progressively more severe wave impact and consequent erosion of the upper bluff, as well as more frequent overtopping of the low bluff in future years.

Combining this documented increase in wave energy with an increasing rate of sea level rise indicates that bluff top erosion rates will increase in the future. Because of the low elevation of the bluff and its very low gradient, this also means that wave overtopping and runup will have the potential to reach the front of the Read home in the near future.

Some Final Thoughts on Future Risks

While the recent trends in sea level rise and increasing wave heights are clear, the future is less clear. The Coastal Commission has taken a conservative approach in recommending that higher projections for future sea level rise be planned for. There are many uncertainties affecting future sea level rise that cannot be predicted, including the natural climatic variations, future emissions of greenhouse gases, the combined effects of those emissions on global temperatures, rate of ice melt, ocean warming and a range of feed back mechanisms that are not completely understood. Similarly, while the recent trends in increasing wave heights and increased frequency of large waves are clear, the driving forces behind these are not clear, nor do we know just what may happen in the years ahead.

For all of these reasons, it is impossible to say precisely how rapidly bluff erosion will proceed in the future or just when the next storm and high tide will significantly erode the bluff and wave overtopping will reach the Read home. Given the low elevation of the terrace and the relatively short distance from the bluff top to the home, and the history of past overtopping, a prudent, intelligent and practical decision is to consider all options for mitigating the future risks. Given all the above, it is impossible to state with certainty that the Read home may be in imminent threat within the next two or three storm cycles, as it is equally impossible to conclude that it will not be.

MITIGATION OF FUTURE THREATS TO COASTAL BLUFF RETREAT AND FLOODING BY WAVE OVERTOPPING

Based on the updated language on sea level rise and coastal storm hazards recommended by the Coastal Commission for Local Coastal Plans:

“All development located at nearshore sites shall be analyzed for potential coastal hazards from erosion, flooding, wave attack, scour and other conditions in conjunction with sea level rise scenarios... and shall also consider... tide range, wave climate, local topography, bathymetry...”

It is important to analyze future options for mitigating the potential for accelerated future bluff erosion and wave overtopping; both are and will continue to pose progressively greater threats to the Read home as the bluff top advances towards the residence.

Alternatives or Options for Mitigating the Risk of Future Erosion and Wave Impact

For any area of coastal bluff or cliff undergoing erosion where improvements are threatened, there are several options to consider. Each is considered here.

- A. Do Nothing**
- B. Relocate Dwelling**
- C. Beach Nourishment**
- D. Bluff Protection**

A. Do Nothing. Erosion from wave run-up will increase at the bluff edge, which will continue to advance landward. A continuing rise in sea level combined with the observed increases in wave height and increasing frequency of large waves will accelerate the rate of historic erosion. Wave overtopping of the bluff will occur more frequently with the threat of wave run-up reaching the home. As discussed above, we are in a climate of change and it is impossible to predict with the changes underway how soon the home itself will be in imminent danger and whether this will be within two or three storm cycles, but this is certainly possible. Doing nothing does not mitigate the erosion and inundation risks.

B. Relocate Dwelling. While there are a number of lightweight wood frame homes that can be and have been relocated from hazardous locations, this is simply not feasible for the Read home, which has a poured concrete basement, foundation and exterior walls that are faced with granite. It is much too massive to move.

C. Beach Nourishment. Beach nourishment has provided a temporary buffer to wave attack under certain conditions for areas that may have been historically fronted by extensive sandy beaches. In the case of the Read home, however, this is a very high-energy environment and only a very small boulder/cobble/ gravel pocket beach fronts a small portion of the area of eroding bluff (Figure 2). The shoreline and intertidal zone are characterized by a low granitic bluff and intertidal outcrops, which support a healthy intertidal flora and fauna. The base of the bluff has considerable relief and is not an area where a significant beach would accumulate or remain if nourished. This is not a viable option at this location. Any sand nourishment would cover over the intertidal zone and would be very short-lived.

D. Bluff Protection. One of the most common responses to coastal erosion historically in California has been the construction of some type of protection device or armor. General options include: a riprap revetment, a concrete seawall, or a soil nail wall or artificial rock protection.

The potential impacts of a seawall or revetment are of concern to permitting agencies, are part of any review process, and as such need to be evaluated. The range of potential impacts

of coastal armoring has recently been evaluated and summarized by Griggs (2005) and needs to be evaluated for this site.

A riprap revetment could be constructed at the base of the bluff and this could provide long-term protection for the area landward of the riprap. Because of the need to stack large rocks at a 1.5:1 or 2:1 slope for stability under high energy wave attack, this would require a large volume of rock that would extend approximately 20 to 30 feet seaward of the base of the bluff and would cover up a large area of the pocket beach and intertidal zone. Because of the footprint required for revetments or beach placement losses, this is not a practical or appropriate solution at this location.

Coastal Bluff Protection and Evaluation of Potential Impacts

- A. Visual impacts**
- B. Impoundment or placement losses**
- C. Reduction of beach access: lateral or vertical**
- D. Loss of sand supply from eroding bluffs or cliffs**
- E. Passive erosion**
- F. Active erosion**

Each of these will be discussed as they relate to the proposed bluff stabilization project at Otter Cove. Importantly, the structure proposed to protect the Read home is not a seawall, but rather a bluff stabilization/erosion control fascia along only the uppermost portion of the bluff designed to prevent wave attack from eroding the terrace deposits and overlying soils. It would be designed to both stabilize the unconsolidated and surficial materials at the top of the bluff, and prevent wave erosion and overtopping by having a slight recurve at the top. The fascia would be founded on the granitic bedrock bench, with a base at an elevation of 10 – 12 ft (NGVD- National Geodetic Vertical Datum), 8.5 to 10.5 feet above mean high tide (1.6 ft NGVD), and thus on private property. The lowermost 8 feet of bluff, consisting of granitic bedrock, would not be altered.

While the proposed structure is not seawall, which usually extends from beach level to the top of bluff, each of the potential impacts recognized for seawalls will be evaluated.

- A. Visual impacts** - As can be seen at other locations in Pebble Beach, and elsewhere in the Monterey Bay area, artificial rock walls can be constructed today that can mimic or reproduce the natural materials so closely that a typical beach visitor or observer is not aware of their presence (Figure 12). Artificial rock walls along the Pebble Beach golf course are virtually indistinguishable from the native granite, and illustrate how well native rock can be reproduced or duplicated (Figure 13). With the proposed bluff top stabilization project, the structure would not only look like the native granite, but it would be completely out of public view from the closest public access point, the Otter Cove parking area adjacent to the Read property on the west. The proposed bluff top stabilization/erosion control fascia will consist of an ~ 12 inch thick layer of shotcrete that will

have virtually the same configuration as the original bluff top and, therefore, there will be no significant or recognizable change in the natural coastal landforms. In summary, there would be no visual impacts to the general public and the proposed structure would not significantly change the natural coastal landforms.



Figure 12. Short section of soil naʻi wall in Pebble Beach area , which mimics and is indistinguishable from the bluff forming granite.

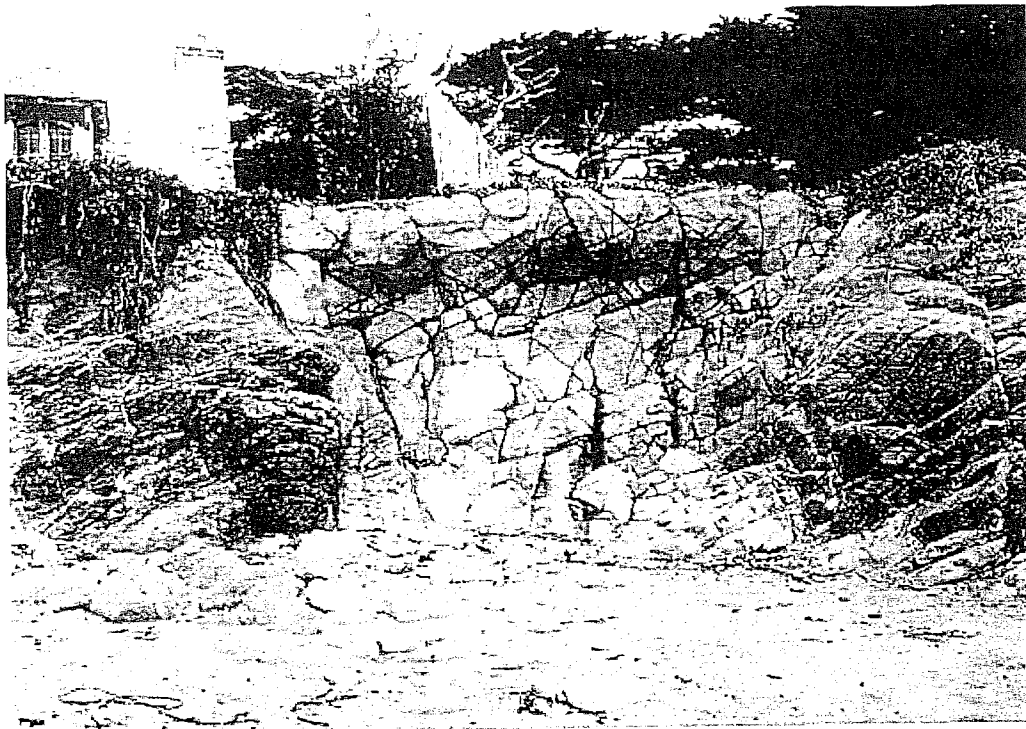


Figure 13. Short section of soil nail wall constructed on southern end of Read Parcel, which mimics and is indistinguishable from the bluff forming granite.

- B. Impoundment or placement losses** - Placement losses refer to armor structures such as riprap revetments where a significant area of beach is required to construct a revetment. Revetments typically cover considerable beach areas compared to a soil nail wall simply because they must extend seaward a distance of 1.5 or 2 times the height of the structure. The proposed bluff top protection structure at the top of the bluff on the Read parcel, which would only be approximately one foot thick, is to be built on a bedrock bench about eight feet above beach level, and therefore, would not produce any placement loss. *In summary, there is no impoundment or placement loss impact.*
- C. Reduction of beach access: lateral or vertical** - Some very large coastal protection structures encroach onto public beaches. The large concrete seawalls protecting both the Monterey Beach Hotel and the Ocean Harbor House complex, for example, (Figures 14 and 15), and therefore, cut off public access along the beach at high tide, or access to the beach from the bluff top. The proposal here is for a 12-inch thick soil nail wall to stabilize the terrace deposits and soil along the bluff top. The proposed structure starts 8 feet above beach level, and doesn't significantly change the existing landforms of affect the beach. There is no loss of beach access because this is not an area where there has ever been public access. *In summary, there is no reduction or loss of beach access.*

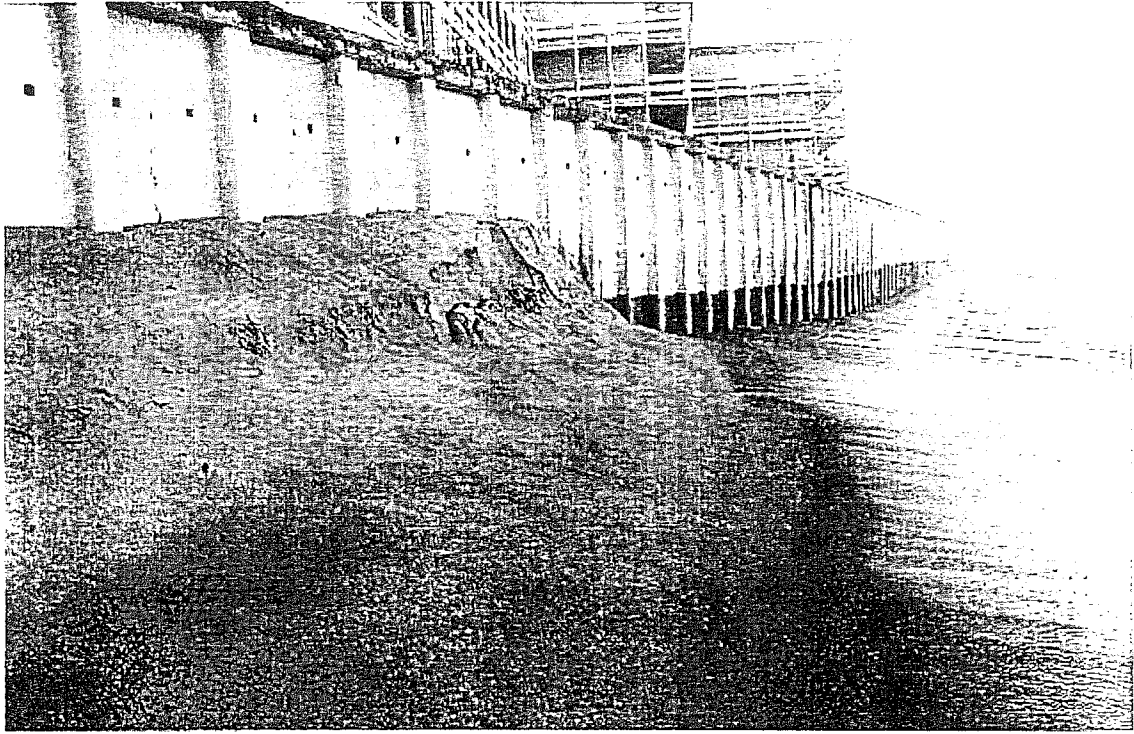


Figure 14. Concrete seawall protecting the Monterey Beach Hotel, which blocks lateral access along the beach at high tides.

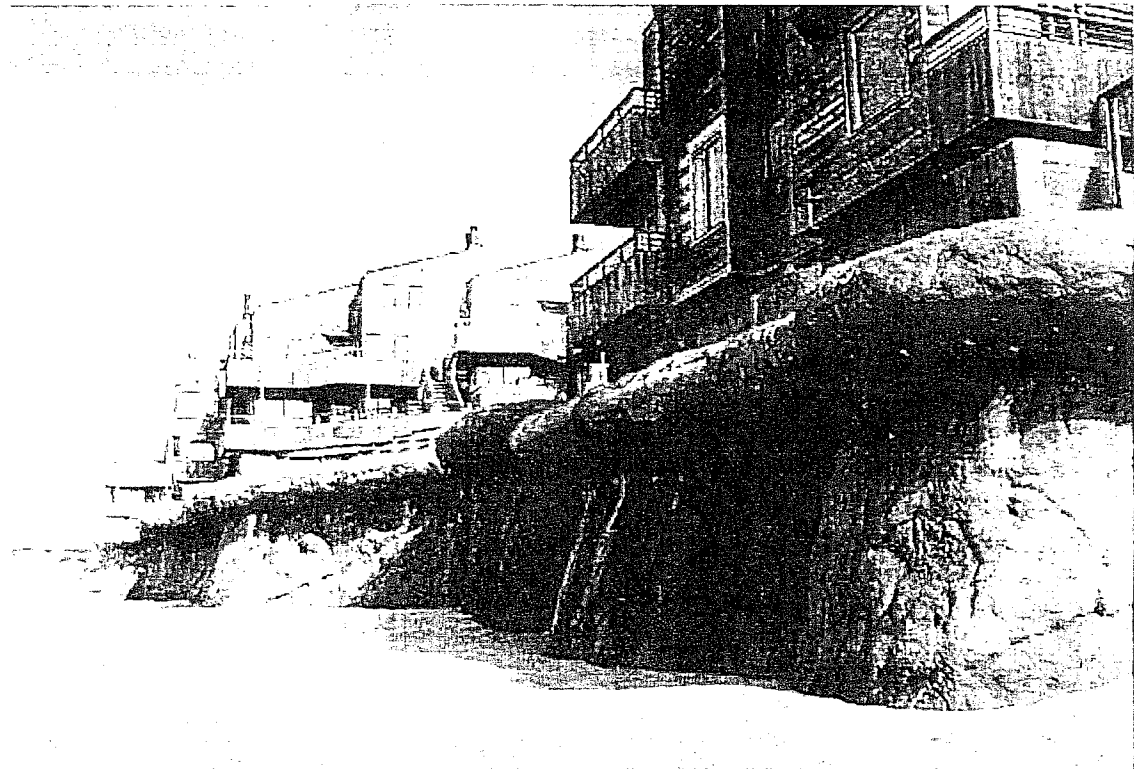


Figure 15. Concrete seawall protecting Ocean Harbor House, which blocks lateral beach access at high tides.

D. Loss of sand supply from eroding bluffs or cliffs - Where extensive sections of sandy bluffs are proposed for armoring, there is the potential that the loss of sand from the previously eroding bluffs could have an impact on the beach itself over time. In order to determine the amount of beach compatible sand that is supplied by bluff or cliff erosion in any shoreline location, one needs to know the following:

- a. the height and thickness of the bluff area proposed for armoring
- b. the lineal frontage of bluff that is proposed for protection
- c. the average annual rate of erosion of the bluff
- d. the percentage of beach compatible sand in the bluff materials

The final consideration in the equation is the size or volume of the beach or the annual littoral drift rate in order to determine how significant this potential loss might be to the larger beach budget.

A wide sandy beach does not front the section of eroding bluff proposed for protection in front of the Read home (Figure 2). A portion of the eroding area proposed for protection is fronted by a cove eroded into granite about 50 feet across. Granite outcrops form the rear and both sides of the cove as well as most of the intertidal zone. There is a very small pocket beach on the southern end of the cove about 25 feet wide. This beach consists of a mixture of granite boulders, cobbles, gravel and very coarse-grained sand (Figure 13). Most of the sand moves offshore in the winter months, and sediment in the small cove is dominated by boulders, cobbles and gravel (Figure 16).

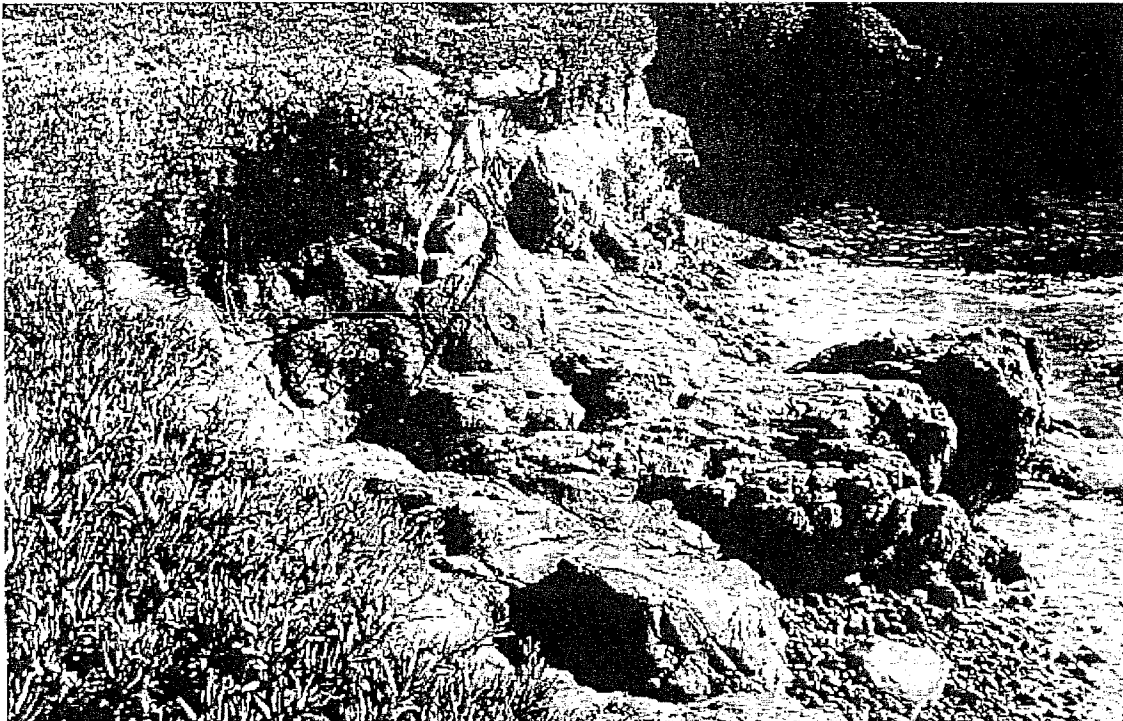


Figure 16. Mixed beach consisting of boulders, cobbles, gravels and some sand in the cove fronting the area proposed for protection.

Otter Cove to the north, is a broader sandier beach, which is used by harbor seals as a haul out and pupping area, but it is sandy, has a significant sub-aerial portion that is suitable and protected for these marine mammals (Figure 17). Virtually every high tide year around inundates the small cove fronting the area proposed for protection, which combined with the boulders and cobbles, make this an unsuitable haul out area for the seals.



Figure 17. Harbor seals hauled out on Otter Cove beach.

The area of bluff top proposed for protection is about 80 feet in length, and most of it is fronted by a granitic bench and rocky intertidal zone. Although it seems evident that the breakdown of the granitic bedrock is the source of the great majority of the coarse-grained material on the beach fronting the bluff, the potential contribution of beach compatible material to the beach from the bluff proposed for protection is determined below.

- a. **Bluff height:** the average thickness of the surficial materials and topsoil resting on the granitic bedrock and proposed for protection ranges from about 4 to 8 feet, and averages 6 feet in thickness (Figure 2 & 18).
- b. **Average bluff erosion rate:** Several different bluff erosion studies have been carried out on the Read parcel, some shorter and some longer term, which have been summarized earlier. These include:
 - Rogers Johnson & Associates (1987): 0.6 to 0.7 ft/yr
 - Nielsen & Associates (2004): 0.3 to 0.5 ft/yr
 - This study (2011): 0.20 to 0.42 ft/yr

These values are quite consistent and a conservative average value of 0.5 ft/yr was used.

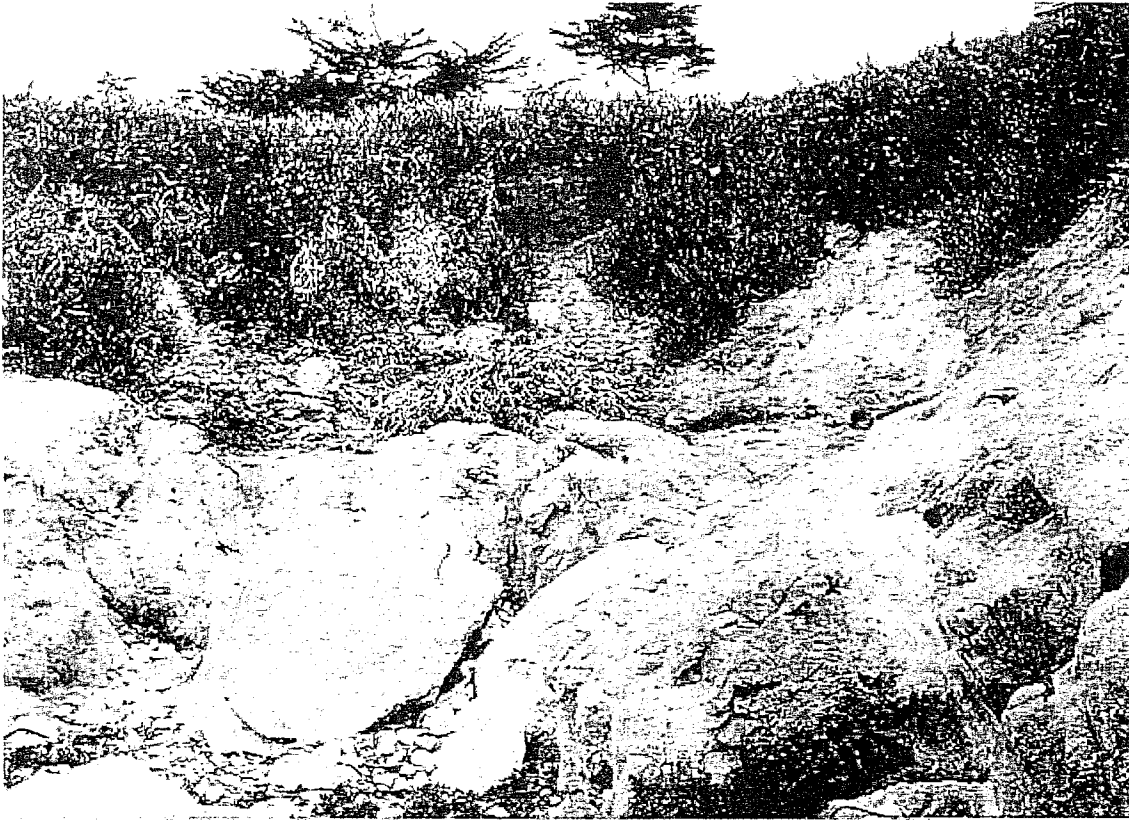


Figure 18. Topsoil and unconsolidated surficial deposits proposed for protection in front of the Read home.

- c. *Percentage of beach compatible sand in the bluff top materials:* The bluff fronting the eastern side of Read home proposed for protection drops to a rocky intertidal zone with a very small and narrow rocky pocket beach composed primarily of granitic cobbles and boulders with scattered very coarse-grained sand (Figures 11 and 15). Approximately 50 to 75% of the material in the cove consists of boulders, cobbles and gravel, leaving only about 25% sand and granule size material. A grain size analysis of this fraction consisted of 91.4% coarse sand or larger.

The weak soils and surficial materials proposed for protection average about 6 feet in thickness. The dark topsoil averages about 3 feet thick with the remainder of the protected area consisting of weathered bedrock, sand and silt. Three representative composite samples were taken and analyzed for their grain size distribution and, on average only 26% of the materials were very coarse-grained sand or would remain on the beach. The rest of the samples were clay, silt and finer-grained sand that would be carried offshore.

80 feet of bluff frontage X 6 feet (average bluff height) X 0.50 ft/yr (average erosion rate) X 26% (% of beach compatible sand) = 62 cubic feet or 2.3 yd³/year of beach compatible sand on average that would be added to the beach from erosion of the bluff to be stabilized.

The granitic cobbles and boulders, which form most of the material in this small cove, do not appear to migrate but remain in place for many years. The finer-grained material coming out of the bluff erosion does not remain on this beach due to the high wave energy so the very small amount of sand contributed by bluff failure is of no significance to this rocky beach.

To provide some additional perspective to this very low value, an approximate volume of sand on Otter Cove beach was determined to be ~5700 yds³ (using a measured surface area of exposed beach of about 31,000 ft² and an average sand thickness of 5 feet). An average annual contribution of 3 yd³ is an insignificant volume of sand relative to the total volume of sand present on the Otter Cove beach. Additionally, recent work by Storlazzi and Field (2000) indicates that sand along this portion of the Monterey peninsula appears to be in transit from north to south, thus the sand on this beach is augmented by sand from further upcoast on the peninsula. ***The proposed bluff top erosion control fascia would, therefore, have no significant impact on the larger Otter Cove beach.***

Additionally, recent work by Storlazzi and Field (2000) indicates that the offshore sand along this portion of the Monterey peninsula appears to be in transit from north to south, although the small pocket beaches, such as Otter Cove, are thus augmented by sand from further upcoast on the peninsula. The loss of about 1 cubic yard/year of beach quality sand through stabilizing this short segment of low bluff is insignificant

While the much larger and sandy Otter Cove Beach is a haul out and pupping area for harbor seals (Figure 18), the rocky, narrow and ephemeral intertidal zone fronting the bluff area proposed for protection does not provide the protection from wave attack needed for haul out and pupping. There is no permanent sandy beach and waves reach the base of the bluff at virtually all high tides. Harbor seals for these reasons do not use this rocky intertidal area. The loss of about 3 cubic yard/year of beach compatible sand through stabilizing this short segment of low bluff is therefore insignificant and within the noise of sand calculations and beach budgets. ***Future loss of sand from the eroding bluff is therefore not an issue at the location.***

- D. ***Passive erosion:*** Whenever a hard structure is built to stabilize a coastline undergoing net long-term retreat as a result of sea level rise, the shoreline will eventually move or migrate landward and the water will gradually deepen in front of the structure. The effect will be gradual loss of the beach in front of the structure as the shoreface profile migrates landward. This process has been designated passive erosion, and is a particular concern for beaches that are used by the public (Figures 14 and 15). However, there is essentially no usable beach below the proposed bluff top protection and the granodiorite bedrock that forms the lower 6 feet of bluff will not be protected and will continue to erode as it has in the past. ***In other words, the granite and the lower bluff will continue to retreat over time such that passive erosion at this location is not an issue.***

- E. ***Active erosion:*** The ability or potential for a seawall or other hard structure to induce or accelerate erosion through wave reflection has been a subject of discussion for many

years. One of the most commonly repeated assertions has been that seawalls cause beach erosion or accelerate the erosion of adjacent unprotected cliffs or bluffs. Although differing opinions have been put forward regarding the impacts of these structures on adjacent beaches, until fairly recently there had been a notable lack of sustained or repeated field observations and measurements with which to resolve the conflicting claims (Griggs, 2005). However, as discussed above, the lowermost 6 feet of bedrock bluff will not be affected or altered by the proposed upper bluff stabilization so will remain as a low, natural granitic bluff. In addition, the very small rocky cove here consists primarily of boulders, cobbles, pebbles and coarse-grained sand, that will be unaffected by the retaining wall at the top of the bluff. ***The proposed project will not produce active erosion.***

CONCLUSIONS

The Read home not only sits on the lowest section of coastal bluff along the 17-Mile Drive but is also sited closer to the bluff edge than other homes. Storm waves during a high tide in January 4-5, 2008 overtopped the low bluff immediately in front of the home, overturned a heavy stone bench 20 feet landward of the bluff edge, eroded soil and terrace deposits, and removed vegetation up to 30 feet inland. The bluff edge has eroded historically at about 0.5 ft/yr on average, but wave overtopping during periods of high tide, elevated sea level and large storm waves can quickly accelerate these rates. The California Coastal Commission has requested the projects being proposed now factor in a significant increase in the rate of sea level rise: "At a minimum, sea level rise scenarios shall assume 16 inches of sea level rise by 2050 and 55 inches (4.6 feet) of sea level rise by 2100". These elevated sea level conditions will create a significantly higher risk for wave attack to the Read home in the years ahead. Additionally, data from wave buoys off the Central Coast indicate that storm waves are increasing in height and that larger waves are becoming more frequent. These elevated sea level and higher wave conditions combine to significantly increase the risk exposure to the Read home, such that a bluff top stabilization/erosion control fascia is proposed and necessary in order to protect the home from future wave attack and continued bluff erosion. An analysis of all of the potential impacts that such a bluff top structure might have on the local coastal environment concludes that such a structure will have no significant impact.

REFERENCES

- Griggs, Gary, 2005. The Impacts of Coastal Armoring. *Shore and Beach* v. 73, No. 1, pp. 13-22.
- Griggs, G.B., Tait, J.F. and Corona, W. 1994. The interaction of seawalls and beaches: seven years of monitoring, Monterey Bay, California. *Shore and Beach*, 62: 21-28.
- Griggs, G.B., Tait, J.F., Moore, L.J., Scott, K., Corona, W. and Pembroke, D., 1997. Interaction of seawalls and beaches: eight years of field monitoring, Monterey Bay, California. U.S. Army Corps of Engineers, Waterways Experiment Station, Contract Report CHL-97-1: 34p.
- Intergovernmental Panel on Climate Change (IPCC), 2007. Fourth Assessment Report (AR4) of the United Nations Intergovernmental Panel on Climate Change.
- Johnson, R.E. & Associates, 1987. Letter Report Regarding Coastal Erosion Rates and Wave Runup, Proposed Sysorex Residence, APN 08-491-14, Cypress Drive, Pebble Beach.
- Nielsen & Associates, 2004. Geologic Report Focusing on Coastal Erosion Rates for an Existing Single Family Home, 3158 17-Mile Drive, Pebble Beach (APN 008-491-14), Monterey County, California. 26 p.
- Seymour, R.J. 2011. Evidence for Changes to the Northeast Pacific Wave Climate. *Journal of Coastal Research*, 27:1: 194-201.
- Storlazzi, C.D. and Field, M.E., 2000. Sediment Distribution and Transport along a Rocky, Embayed Coast: Monterey Peninsula and Carmel Bay, California. *Marine Geology* 170: 289-316.
- Storlazzi, C.D. and Wingfield, D.K. 2005. Spatial and Temporal Variations in Oceanographic and Meteorological Forcing Along the Central California Coast, 1980-2002, U.S. Geological Survey Scientific Investigations Report 2005-5085:39p.

Appendix A

“Mean sea level” is a “tidal datum”; in fact it is the primary tidal datum. Marmer, *Tidal Datum Planes* (U.S. Department of Commerce 1951), p. 45. It is the average elevation of the sea at a given place on the coast, or the surface of the sea (or bay). Its elevation varies from place to place and from time to time, and for this reason it is singularly unuseful for engineering purposes.

Recognizing the need for a fixed vertical datum that would have the same value everywhere in the United States, the federal government in the 1920s undertook a large project to establish just such a datum. By the laborious process of high-precision survey leveling (“first order” leveling) it transferred a selected elevation (an average of mean sea level values from selected sites on the U.S. coastline) to key points across the United States. The product of this endeavor was the establishment of “Sea Level Datum of 1929”, (sometimes “SLD 1929”). This is the datum commonly used by engineers and surveyors for expressing elevations, for the reason that it has the same value at all places, and thus vertical relationships are easily computed. See generally A. Shalowitz, *Shore and Sea Boundaries* (U.S. Government Printing Office 1964), Vol. 2, pp. 32-75.

But because of the similarity in nomenclature between “mean sea level” and “Sea Level Datum of 1929,” the latter expression was officially changed to “National Geodetic Vertical Datum” in 1973. National Oceanic and Atmospheric Administration (U.S. Department of Commerce), “National Vertical Control Net,” 38 Fed. Reg. p. 12840 (May 16, 1973).

A 1974 NOAA publication explains further: “The NGVD is fixed and does not take into account the ever changing stands of sea level. Because of the many variables affecting sea level, the relationship between NGVD and local mean sea level is not consistent from one location to another in either time or space. Mean sea level is the average height of the water surface over a 19-year period of observation. This determination generally is made by averaging hourly heights of the tide over the length of that period. Mean tide level, MTL a plane midway between high and low water, is computed by averaging the high and low waters of the 19-period of record. These two planes approximate each other on the open coast. Since MTL is calculated more easily, it is generally used instead of mean sea level.” “Variability of Tidal Datums and Accuracy in Determining Datums from Short Series of Observations,” National Oceanic and Atmospheric Administration Technical Report NOS 64, October 1974, p. 4.

The former expression for “tidal datum” was, as the title of Marmer’s book suggests, “tidal datum plane.” They are not, though, according to present thought, true planes since their elevation varies from place to place; moreover, even were they of uniform elevation, the curvature of the earth would disqualify them as planes. See National Ocean Survey, *Tide and Current Glossary* (1975 rev.), p. 5.

Exhibit M

As-Built Plans

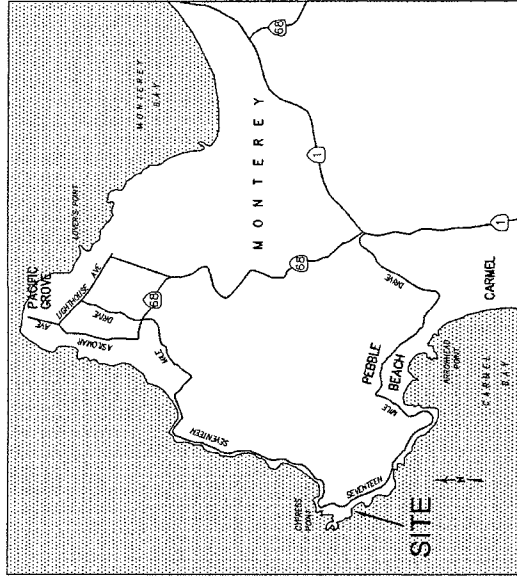
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3158 SEVENTEEN MILE DRIVE, PEBBLE BEACH, CA
MONTEREY COUNTY A.P.N. 008-491-13

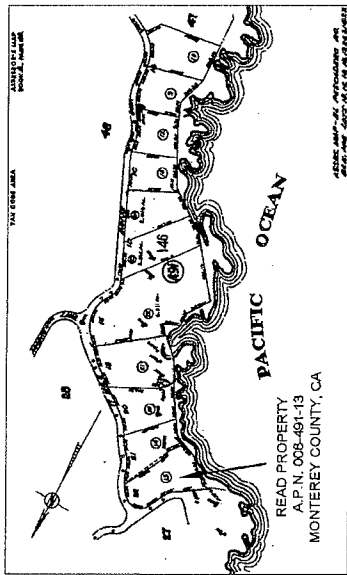
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 CONSULTING CIVIL, GEOTECHNICAL & COASTAL ENGINEERS
 116 EAST LAKE AVE., WATSONVILLE, CA 95076
 (831) 722-4175

Date	4/11/11
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Drawn	MF
Job	
Sheet	1

of 4 Sheets



VICINITY MAP



ASSESSORS PARCEL MAP

PROPERTY OWNER:

JAMES PETER READ
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 Orinda, CA 94563

PLAN PREPARERS:

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 Mark Foss, C.E.G. 1493
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 (831)722-3202 FAX

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SHEET INDEX

- SHEET 1 - TITLE SHEET
- SHEET 2 - AS BUILT BLUFF PROTECTION PLAN
- SHEET 3 - AS BUILT BLUFF PROTECTION CROSS SECTIONS
- SHEET 4 - AS BUILT BLUFF PROTECTION STRUCTURAL NOTES & DETAILS

AS BUILT PLAN SET

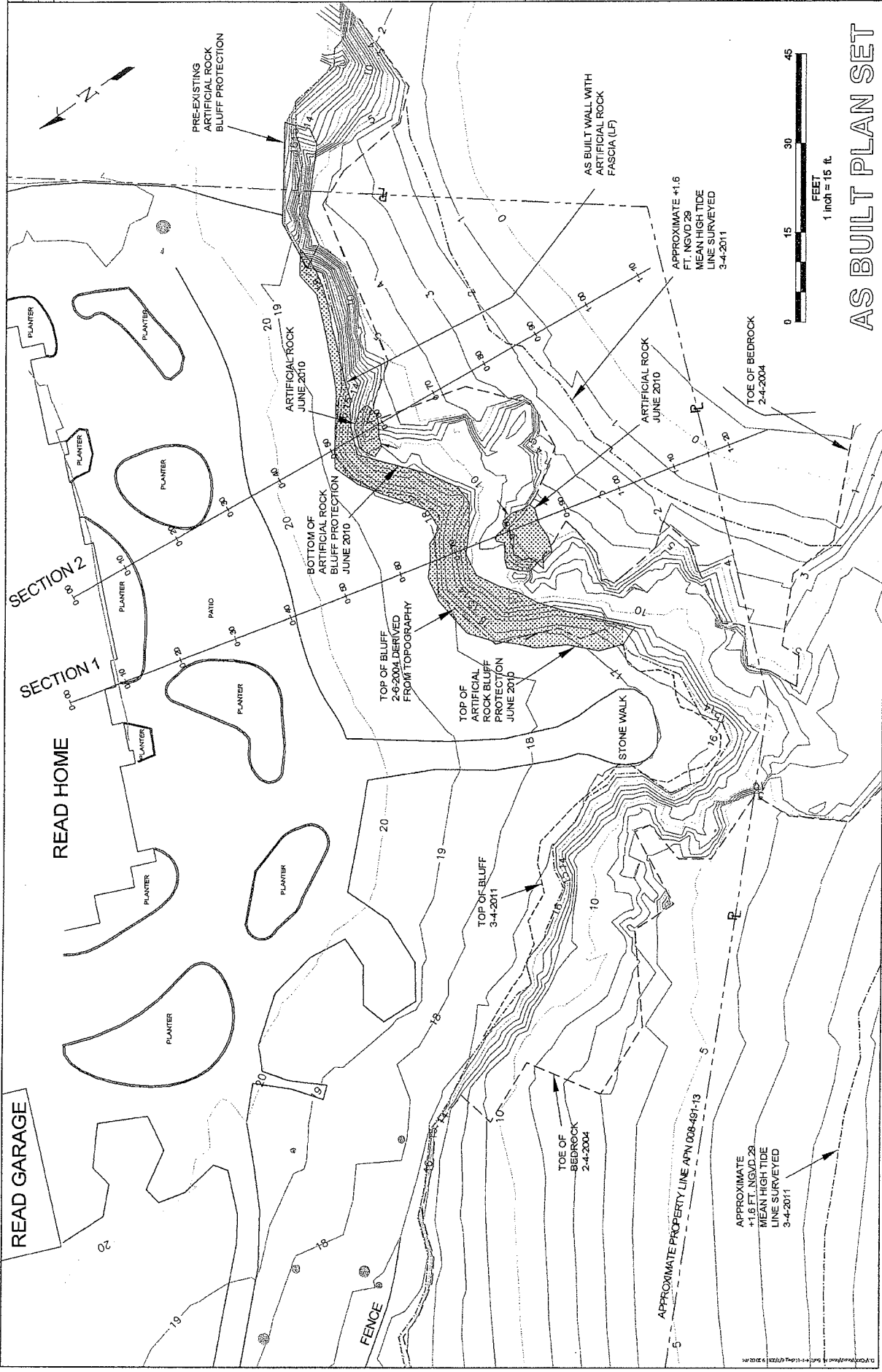
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READ PROPERTY AS BUILT COASTAL BLUFF PROTECTION
3158 SEVENTEEN MILE DRIVE, PEBBLE BEACH, CA
MONTEREY COUNTY A.P.N. 008-491-13

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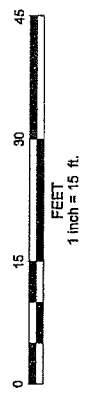
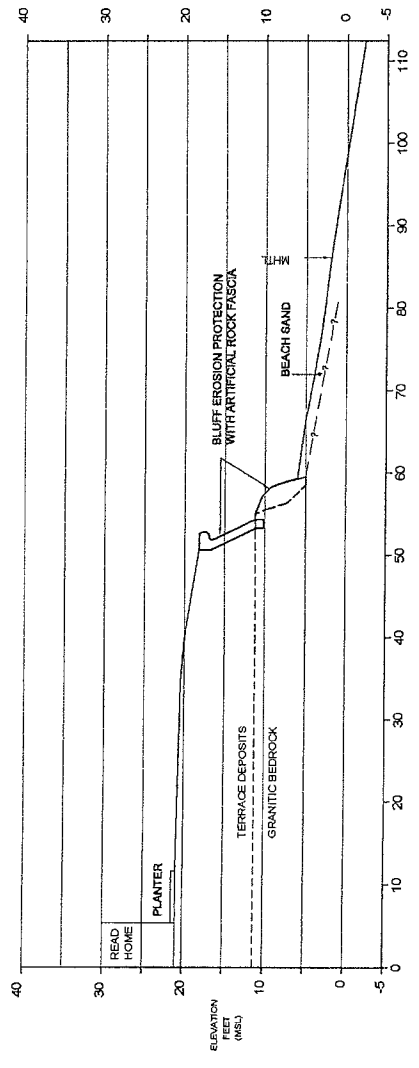
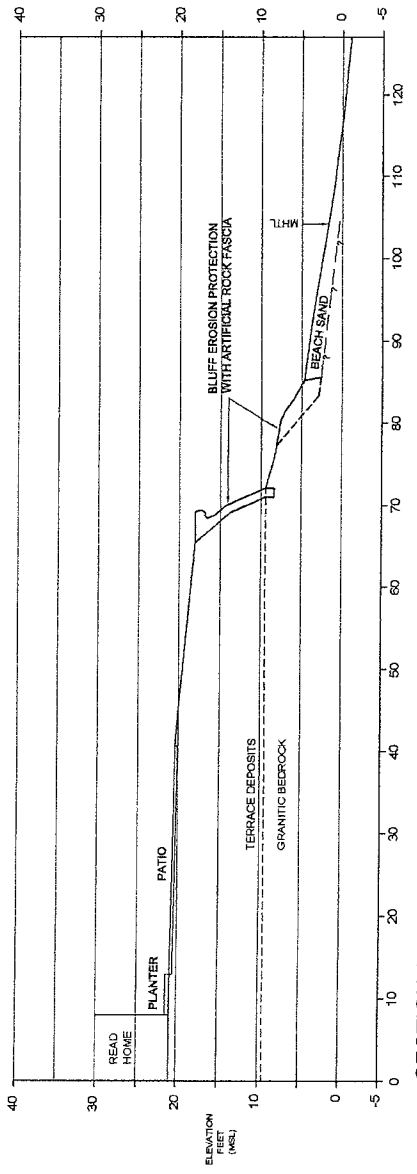
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 3158 SEVENTEEN MILE DRIVE, PEBBLE BEACH, CA
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AS BUILT PLAN SET



Visual Point Lobos



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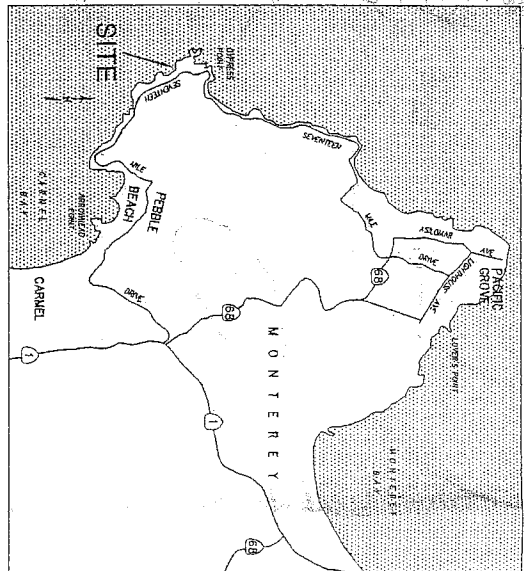
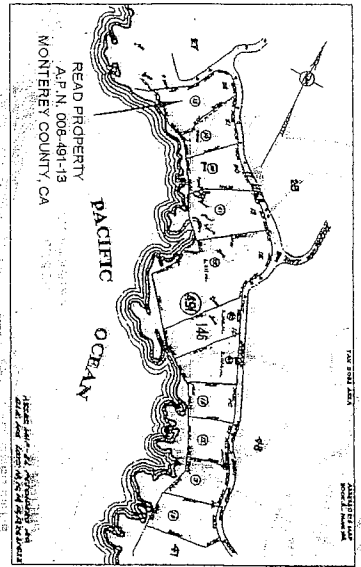
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Legend

- Parcels
- Roads
 - Freeway
 - Other Principal Arterial
 - Minor Arterial
 - Major Collector
 - Minor Collector
 - Local
- Railroad Lines
- Incorporated Cities (Fill)
 - CARMEL BY-THE-SEA
 - DEL REY OAKS
 - GONZALES
 - GREENFIELD
 - KING CITY
 - MARINA
 - MONTEREY
 - PACIFIC GROVE
 - SALINAS
 - SAND CITY
 - SEASIDE
 - SOLEDAD
- Incorporated Cities (Bound)
- County Boundary²
 - MONTEREY CO
 - OTHER

Notes



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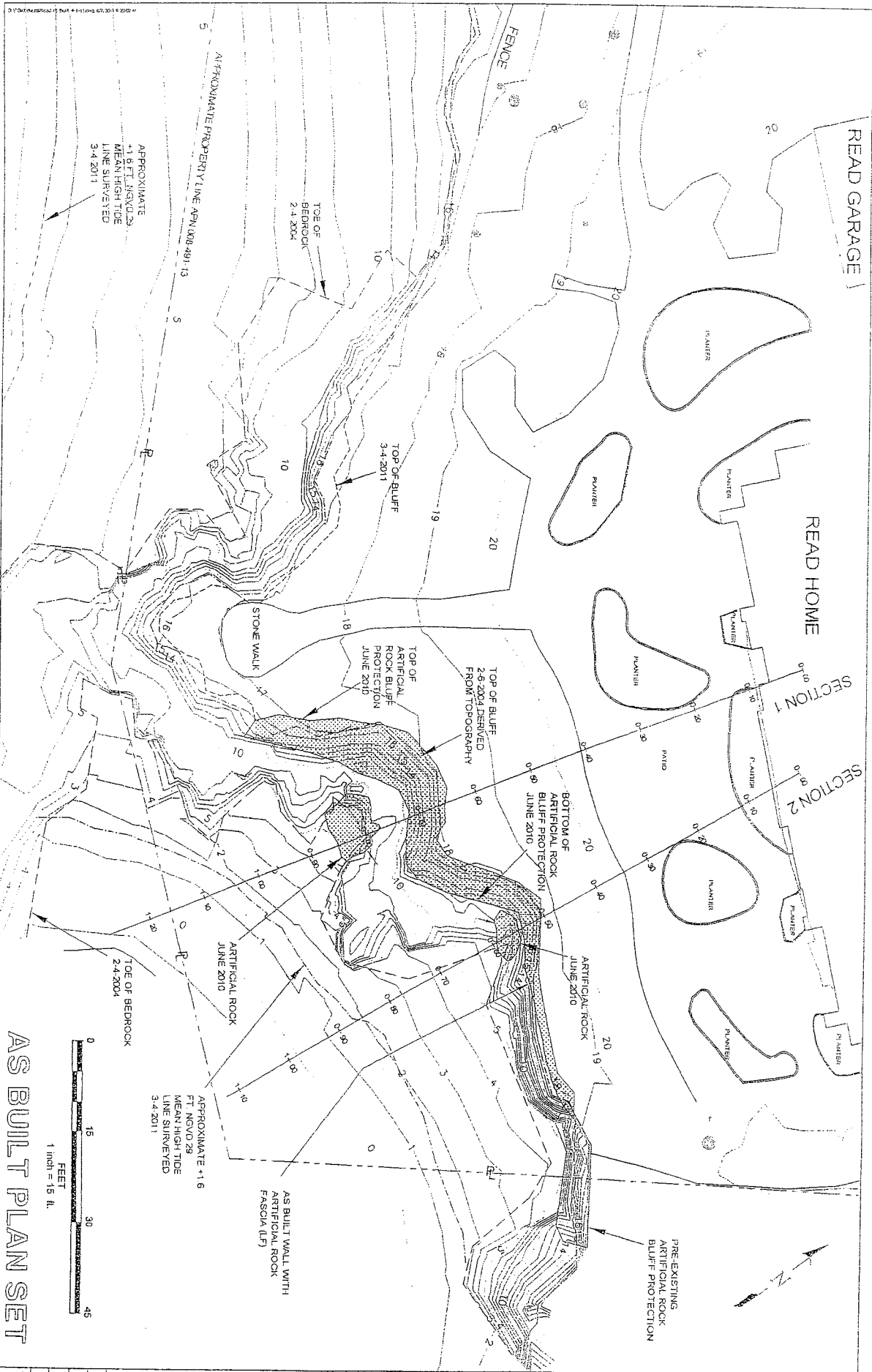
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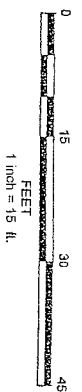
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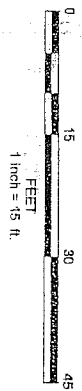
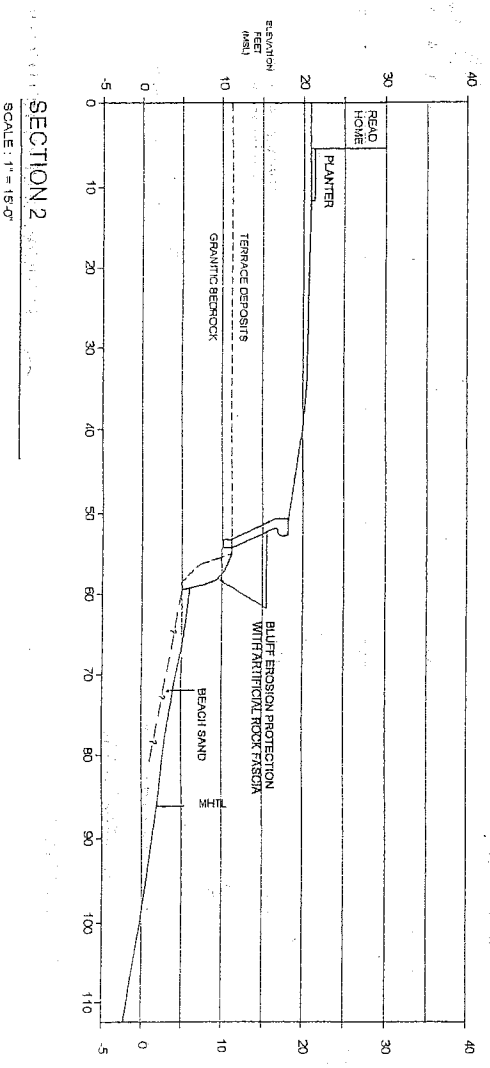
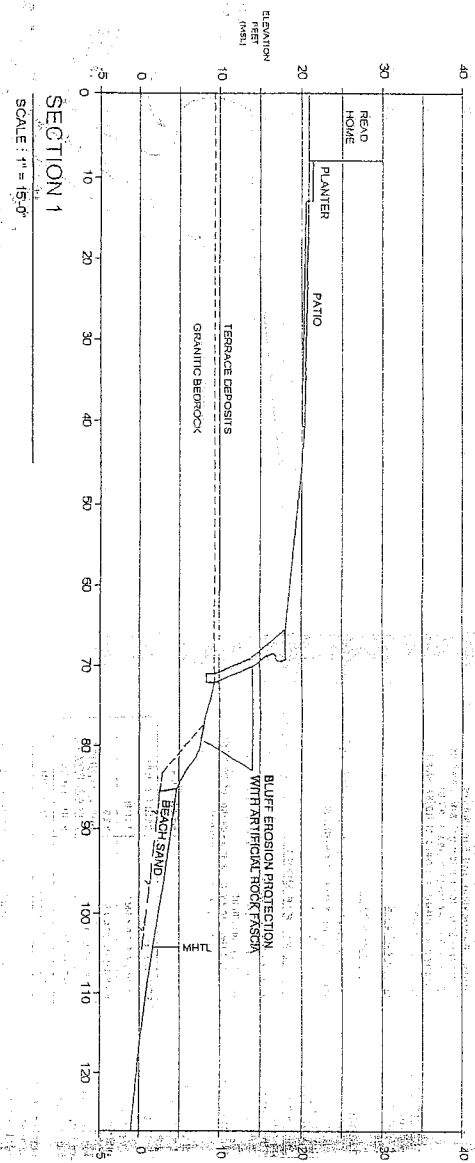


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AS BUILT PLAN SET

STRUCTURAL NOTES & SPECIFICATIONS

1. ALL DETAILS, SECTIONS AND NOTES show dimensions and materials typical and shall apply to similar situations, unless otherwise noted.

Check all dimensions in relation to site conditions prior to starting work. The contractor shall coordinate the work of all trades. All interpretations shall be called to the attention of the structural engineer and the contractor is responsible for the safety of construction and personnel. Provide adequate shoring and bracing in accordance with the manufacturer's data and local safety ordinances.

2. REINFORCING STEEL shall be ASTM A615, reinforcing and steel not as epoxy specified in wall details. The wire shall be 16 gauge. At bar/laps and reinforcement for horizontal and vertical steel must be spliced with a minimum of 30 diameters. All lap splices shall be lap splices, not overlapped. All steel shall be rigidly held in place with approved devices prior to pouring concrete. Hooks, bends, fabrication and marking shall be in accordance with the Manual of Standard Practice for Detailing Reinforced Concrete Structure, ACI No. 315-3R. Reinforcing steel shall be protected from salt water and by providing adequate device covering. Remove cover just prior to concrete placement. In case of exposure to salt water, wash steel/reinforcement with clean water, best prior to concrete placement.

3. STRUCTURAL STEEL shall be in accordance with AISC's specification for the Structural Steel Joist Section of the American Institute of Steel Construction, Inc. ASTM A-36. All bolt nuts shall be punched or drilled; turning of holes shall not be permitted.

4. CONCRETE

A. STRENGTH

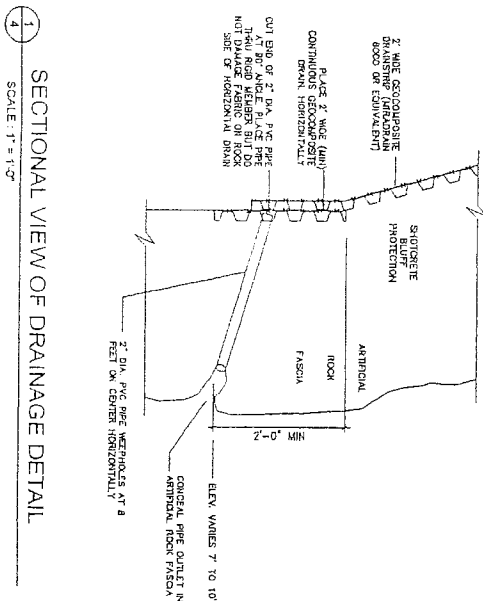
Concrete shall develop a 28-day minimum ultimate compressive strength of 2,500 psi.

B. CONCRETE MIXES

Provide the following:

STRENGTH	NETTING
3000 PSI MIN	2500 PSI MIN
7 MIN	7 MIN
YES	YES
NOT WITHHOLD	ENG. APPROVAL
4 INCH MAX	4 INCH MAX

All concrete shall be in conformance with ASTM C-1116 Type III concrete or shorecrete. Concrete shall be machine mixed, transported and placed in accordance with ACI-308.



SECTIONAL VIEW OF DRAINAGE DETAIL
SCALE: 1" = 1'-0"

TYPICAL BLUFF PROTECTION SECTION
SCALE: 1/2" = 1'-0"

AS BUILT PLAN SET

