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CALIFORNIA COASTAL COMMISSION

OUTH CENTRAL COAST AREA OUTH CALIFORNIA ST., SUITE 200 TURA, CA 93001 (805) 585 - 1800



Filed: 49th Day: 180th Day:

Staff Report:

Hearing Date:

Staff:

1/7/02 2/25/02 7/6/02

K. Kemmler

2/14/02

3/5-8/02 Commission Action:



STAFF REPORT: REGULAR CALENDAR

APPLICATION NO.:

4-01-148

APPLICANT:

Greg & Teresa Nathanson

AGENT:

Land & Water Co., Attn: Lynn Heacox

PROJECT LOCATION:

30916 Broad Beach Road, Malibu (Los Angeles County)

APN NO.:

4470-013-018

PROJECT DESCRIPTION: Proposal to construct a new two story, 28 ft. high, 4,241 sq. ft. single family residence with attached 495 sq. ft. garage, pool, 6 ft. high max privacy wall along western edge of property and new septic system including 103 cu. yds. grading (all fill). The proposal also includes an offer-to-dedicate lateral public access easement from the ambulatory seawardmost limit of dune vegetation to the ambulatory mean high tide line and an offer-todedicate open space easement between the seaward edge of the deck and the ambulatory seawardmost limit of dune vegetation.

17,130 sq. ft. Lot area Building coverage 2,191 sq. ft. 1,495 sq. ft. Pavement coverage Landscape coverage 800 sq. ft. Height Above Finished Grade 28 ft. Parking spaces

LOCAL APPROVALS RECEIVED: City of Malibu Planning Department, Approval in Concept, March 7, 2001; City of Malibu Environmental Health, Approval in Concept, January 19, 2001; City of Malibu Biological Review, Approval in Concept, November 28, 2000.

SUBSTANTIVE FILE DOCUMENTS: Certified Malibu/Santa Monica Mountains Land Use Plan; "Wave Uprush Study," Pacific Engineering Group, June 9, 2000; "Soils and Engineering Geologic Investigation," Geosystems, October 19, 2000; "Coastal Development Project Review," December 27, 2001, California State Lands Commission; "Dune Habitat Restoration and Monitoring Plan," December 19, 2001, David Carroll & Associates.

Summary of Staff Recommendation

Staff recommends *approval* of the proposed project with **ten (10) special conditions** regarding (1) geologic recommendations, (2) drainage and polluted runoff control, (3) landscaping/dune habitat restoration plan, (4) assumption of risk, (5) open space deed restriction, (6) lateral public access easement, (7) no future shoreline protective device, (8) construction responsibilities and debris removal, (9) sign restriction, and (10) lighting restriction.

I. STAFF RECOMMENDATION

MOTION:

I move that the Commission approve Coastal Development Permit No. 4-01-148 pursuant to the staff recommendation.

Staff Recommendation of Approval:

Staff recommends a **YES** vote. Passage of this motion will result in approval of the permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

Resolution to Approve the Permit:

The Commission hereby approves a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. STANDARD CONDITIONS

- Notice of Receipt and Acknowledgment. The permit is not valid and development shall
 not commence until a copy of the permit, signed by the permittee or authorized agent,
 acknowledging receipt of the permit and acceptance of the terms and conditions, is
 returned to the Commission office.
- 2. Expiration. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

- **3. Interpretation.** Any questions of intent or interpretation of any term or condition will be resolved by the Executive Director or the Commission.
- **4. Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
- 5. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

III. SPECIAL CONDITIONS

1. Plans Conforming to Geologic Recommendations

All recommendations contained in the Wave Uprush Study dated June 9, 2000 prepared by Pacific Engineering Group and the Soils and Engineering Geologic Investigation dated October 19, 2000 prepared by Geosystems shall be incorporated into all final design and construction including foundations, grading, sewage disposal and drainage. Final plans must be reviewed and approved by the project's consulting geotechnical engineer and geologist. Prior to issuance of the coastal development permit, the applicant shall submit, for review and approval by the Executive Director, two sets of plans with evidence of the consultant's review and approval of all project plans.

The final plans approved by the consultants shall be in substantial conformance with the plans approved by the Commission relative to construction, grading, sewage disposal and drainage. Any substantial changes in the proposed development approved by the Commission which may be required by the consultants shall require an amendment to the permit or a new coastal permit.

2. Drainage and Polluted Runoff Control Plans

Prior to the Issuance of the Coastal Development Permit, the applicants shall submit to the Executive Director for review and written approval, two sets of final drainage and runoff control plans, including supporting calculations. The plan shall be prepared by a licensed engineer and shall incorporate structural and non-structural Best Management Practices (BMPs) designed to control the volume, velocity and pollutant load of stormwater leaving the developed site. The plan shall be reviewed and approved by the consulting geotechnical engineer and geologist to ensure the plan is in conformance with consultant's recommendations. In addition to the specifications above, the plan shall be in substantial conformance with the following requirements:

- (a) Selected BMPs (or suites of BMPs) shall be designed to treat or filter the amount of stormwater runoff produced by all storms up to and including the 85th percentile, 24-hour runoff event for volume-based BMPs, and/or the 85th percentile, 1-hour runoff event, with an appropriate safety factor (i.e., 2 or greater), for flow-based BMPs.
- (b) Runoff shall be conveyed off site in a non-erosive manner.
- (c) Energy dissipating measures shall be installed at the terminus of outflow drains.

(d) The plan shall include provisions for maintaining the drainage system, including structural BMPs, in a functional condition throughout the life of the approved development. Such maintenance shall include the following: (1) BMPs shall be inspected, cleaned and repaired when necessary prior to the onset of the storm season, no later than September 30th each year and (2) should any of the project's surface or subsurface drainage/filtration structures or other BMPs fail or result in increased erosion, the applicant/landowner or successor-in-interest shall be responsible for any necessary repairs to the drainage/filtration system or BMPs and restoration of the eroded area. Should repairs or restoration become necessary, prior to the commencement of such repair or restoration work, the applicant shall submit a repair and restoration plan to the Executive Director to determine if an amendment or new coastal development permit is required to authorize such work.

3. Landscaping and Dune Habitat Restoration Plans

Prior to issuance of a coastal development permit, the applicant shall submit 2 sets of landscaping and dune habitat restoration plans, prepared by a licensed landscape architect or a qualified resource specialist, for review and approval by the Executive Director. The landscaping and dune habitat restoration program shall be reviewed and approved by a consulting environmental resource specialist confirming that the plans are in conformance with the consultant's recommendations. The plans shall identify the species, extent, and location of all plant materials and shall incorporate the following criteria:

a. Landscaping Plan

- (1) The portion of the subject site that is not sandy beach (or subject to wave action) shall be planted within (60) days of receipt of the certificate of occupancy for the residence. To minimize the need for irrigation, all landscaping shall consist primarily of native/drought resistant plants as listed by the California Native Plant Society, Santa Monica Mountains Chapter, in their document entitled Recommended List of Plants for Landscaping in the Santa Monica Mountains, dated February 6, 1996. Such planting shall be adequate to provide 90 percent coverage within two (2) years, and this requirement shall apply to all disturbed soils. Invasive, non-indigenous plant species which tend to supplant native species shall not be used.
- (2) Plantings will be maintained in good growing condition throughout the life of the project and, whenever necessary, shall be replaced with new plant materials to ensure continued compliance with applicable landscape requirements.
- (3) All existing invasive plant species existing at the project site shall be removed and replaced with appropriate native plant species.
- (4) The Permittee shall undertake development in accordance with the final approved plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Coastal Commission approved amendment to the coastal development permit, unless the Executive Director determines that no amendment is required.

b. Dune Habitat Restoration Plan

All invasive and non-native plant species shall be removed from the dune habitat restoration area as generally shown as the open space area on Exhibit 3. The dune habitat restoration area shall be revegetated with native plant species appropriate to beach dune vegetation communities. The restoration plan shall also clearly delineate a foot path of no more than 3 ft. in width (sand surface only) for beach access through the dune system by the applicant in order to minimize disturbance to the dune system. The plan shall specify the preferable time of year to carry out the restoration and describe the supplemental watering requirements that will be necessary. The plan shall also specify specific performance standards to judge the success of the enhancement effort. The performance standards shall incorporate ground coverage and survival rates typical to dune vegetation habitat areas.

c. Monitoring

- (1) The applicant shall submit, for the review and approval of the Executive Director, a five (5) year Landscape and Dune Habitat Restoration Monitoring Program, prepared by an environmental resource specialist, which outlines dune restoration performance standards to ensure that restoration efforts at the project site are successful. Successful site restoration shall be determined if the revegetation of native plant species on site is adequate to provide 90% coverage by the end of the five (5) year monitoring period and is able to survive without additional outside inputs, such as supplemental irrigation. The monitoring program shall also include photographs taken from pre-designated sites (annotated to a copy of the site plans) showing the area of the project site where restoration will occur prior to restoration.
- (2) The applicant shall submit, on an annual basis for a period of five years (no later than December 31st each year) a written report, for the review and approval of the Executive Director, prepared by an environmental resource specialist, evaluating the success or failure of the restoration project. The annual reports shall include further recommendations and requirements for additional restoration activities in order for the project to meet the criteria and performance standards specified in the proposed restoration plan. These reports shall also include photographs taken from pre-designated sites (annotated to a copy of the site plans) indicating the progress of recovery at each of the sites. During the monitoring period, all artificial inputs shall be removed except for the purposes of providing mid-course corrections or maintenance to ensure the long term survival of the project site. If these inputs are required beyond the first four years, then the monitoring program shall be extended for an equal length of time so that the success and sustainability of the project site is ensured. Restoration sites shall not be considered successful until they are able to survive without artificial inputs.
- (3) At the end of the five year period, a final detailed report shall be submitted for the review and approval of the Executive Director. If this report indicates that the restoration project has in part, or in whole, been unsuccessful, based on the approved performance standards, the applicant shall be required to submit a revised or supplemental program to compensate for those portions of the original program which were not successful. The revised or supplemental dune restoration program shall be processed as an amendment to this Coastal Development Permit.

4. Assumption of Risk/Shoreline Protection

- A. By acceptance of this permit, the applicant acknowledges and agrees (i) that the site may be subject to hazards from liquefaction, storm waves, surges, erosion, flooding, and wildfire; (ii) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.
- B. Prior to issuance of the coastal development permit, the applicant shall execute and record a deed restriction, in a form and content acceptable to the Executive Director incorporating all of the above terms of this condition. The deed restriction shall include a legal description of the applicant's entire parcel. The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Commission amendment to this coastal development permit.

5. Open Space Deed Restriction

- A. No development, as defined in section 30106 of the Coastal Act, with the exception of dune habitat restoration, shall occur within the area of the subject site located between the approved deck/patio and the ambulatory seawardmost limit of dune vegetation as generally shown on the site plan (Exhibit 3). It is recognized that the seaward limit of the dune system and dune vegetation on the subject site is ambulatory in nature and that, therefore, the seaward extent of the area subject to this deed restriction is ambulatory in nature. This deed restriction shall in no way be interpreted to limit or restrict the area of beach available for lateral public access consistent with Special Condition No. Six.
- B. Prior to the issuance of the coastal development permit, the applicant shall execute and record a deed restriction in a form and content acceptable to the Executive Director, reflecting the above restriction on development in the designated open space. The deed restriction shall include legal descriptions and a map of both the applicant's entire parcel and the open space area. The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Commission amendment to this coastal development permit.

6. Offer to Dedicate Lateral Public Access

To implement the applicant's proposal of an offer to dedicate an easement for lateral public access and passive recreational use along the shoreline as part of this project, the applicant agrees to complete the following prior to issuance of the permit: the landowner shall execute and record a document, in a form and content acceptable to the Executive Director, irrevocably

offering to dedicate to a public agency or private association approved by the Executive Director, an easement for lateral public access and passive recreational use along the shoreline. The document shall provide that the offer of dedication shall not be used or construed to allow anyone, prior to acceptance of the offer, to interfere with any rights of public access acquired through use which may exist on the property. Such easement shall be located along the entire width of the property from the ambulatory mean high tide line landward to the ambulatory seawardmost limit of dune vegetation on the subject site as generally illustrated on the site plan (Exhibit 3). If at some time in the future, there is no dune vegetation seaward of the approved deck/patio line, such easement shall be located along the entire width of the property from the ambulatory mean high tide line landward to the seawardmost limit of the approved deck/patio line. It is recognized that both the mean high tide line and the seaward limit of the dune system/vegetation on the subject site are ambulatory in nature and that, therefore, the area of beach subject to this offer to dedicate a lateral public access easement is also ambulatory in nature.

The document shall be recorded free of prior liens which the Executive Director determines may affect the interest being conveyed, and free of any other encumbrances which may affect said interest. The offer shall run with the land in favor of the People of the State of California, binding all successors and assignees, and shall be irrevocable for a period of 21 years, such period running from the date of recording. The recording document shall include legal descriptions and a map of both the applicant's entire parcel and the easement area. This deed restriction shall not be removed or changed without a Coastal Commission approved amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

7. No Future Shoreline Protective Device

- A. By acceptance of the permit, the applicant agrees, on behalf of itself and all successors and assignees, that no shoreline protective device(s) shall ever be constructed to protect the development approved pursuant to Coastal Development Permit 4-01-148 including, but not limited to, the construction of the residence, garage, driveway/patios, septic system, pool and any other future improvements in the event that the development is threatened with damage or destruction from waves, erosion, storm conditions, landslides, or other natural hazards in the future. By acceptance of this permit, the applicant hereby waives, on behalf of itself and all successors and assigns, any rights to construct such devices that may exist under Public Resources Code Section 30235.
- B. By acceptance of this permit, the applicant further agrees, on behalf of itself and all successors and assigns, that the landowner shall remove the development authorized by this permit, including but not limited to, the residence, garage, driveway/patio areas, septic system, and pool if any government agency has ordered that the structures are not to be occupied due to any of the hazards identified above. In the event that portions of the development fall to the beach before they are removed, the landowner shall remove all recoverable debris associated with the development from the beach and ocean and lawfully dispose of the material in an approved disposal site. Such removal shall require a coastal development permit.
- C. Prior to issuance of Coastal Development Permit No. 4-01-148, the applicant shall execute and record a deed restriction, in a form and content acceptable to the Executive Director which reflects the above restrictions on development. The deed restriction shall include a

legal description of the applicant's entire parcel(s). The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Commission amendment to this coastal development permit.

8. Construction Responsibilities and Debris Removal

The applicant shall, by accepting this permit, agree: a) that no stockpiling of dirt shall occur on the beach; b) that all grading shall be properly covered and sand bags and/or ditches shall be used to prevent runoff and siltation; and, c) that measures to control erosion must be implemented at the end of each day's work. In addition, no machinery will be allowed in the intertidal zone at any time. The permittee shall remove from the beach any and all debris that result from the construction period.

Prior to the issuance of the coastal development permit, the applicant shall provide evidence to the Executive Director of the location of the disposal site for all debris/excavated material from the site. Should the dump site be located in the Coastal Zone, a Coastal Development Permit shall be required.

9. Sign Restriction

No signs shall be posted on the property subject to this permit unless authorized by a coastal development permit or an amendment to this coastal development permit.

10. Lighting Restriction

- A. The only outdoor, night lighting that is allowed on the site is the following:
- 1) The minimum necessary to light walkways used for entry and exit to the structures, including parking areas, on the site. This lighting shall be limited to fixtures that do not exceed two feet in height, that are directed downward, and use bulbs that do not exceed 60 watts, or the equivalent, unless a higher wattage is authorized by the Executive Director.
- 2) Security lighting attached to the residence that is controlled by motion detectors and is limited to 60 watts, or the equivalent.
- 3) The minimum lighting necessary for safe vehicular use of the driveway. The lighting shall be limited to 60 watts, or the equivalent.

No lighting around the perimeter of the site and no lighting for aesthetic purposes is allowed, specifically, no lighting shall be located in or directed toward the open space area.

B. Prior to issuance of Coastal Development Permit No. 4-01-148, the applicant shall execute and record a deed restriction reflecting the above restrictions.

IV. FINDINGS AND DECLARATIONS

The Commission hereby finds and declares:

A. PROJECT DESCRIPTION AND BACKGROUND

The applicant is proposing to construct a new two story, 28 ft. high, 4,241 sq. ft. single family residence with attached 495 sq. ft. garage, pool, 6 ft. high max privacy wall along western edge of property and new septic system including 103 cu. yds. grading (all fill) (Exhibits 3-8). The proposal also includes an offer to dedicate lateral public access easement along the beach as measured from the ambulatory seawardmost limit of dune vegetation to the ambulatory mean high tide line, an offer to dedicate open space easement over the portion of the site located between the seaward edge of the approved deck/patio and the ambulatory seawardmost limit of dune vegetation and restoration of the existing dune system (Exhibits 3).

The subject property is a rectangular parcel encompassing approximately 0.4 acres (Exhibit 2). The parcel is located between Broad Beach Road and the Pacific Ocean (Exhibit 1). The property primarily consists of a level pad with slopes that ascend northerly to Broad Beach Road, and moderate slopes that descend southerly to the ocean. Total physical relief over the subject site is on the order of 14 ft. The subject parcel is currently developed with a two story single family residence. A Coastal Development Permit Waiver (No. 4-01-175) was issued in December, 2001 for the demolition of all existing development onsite, including the residence, garage, block walls, patios, decks, fences, signs and removal of the septic system. A vegetated dune system is located along the southern beachfront portion of the subject site, which is designated as environmentally sensitive habitat area (ESHA) by the previously certified County of Los Angeles Malibu/Santa Monica Mountains Land Use Plan (LUP). The dune habitat on site is highly disturbed and vegetated predominantly with ice plant. To minimize potential adverse impacts of the proposed development on the sensitive dune habitat at the site, the applicant is proposing restoration of the existing ESHA and is offering an open space deed restriction over that portion of the site encompassing the dune system.

As indicated on project plans submitted for the proposed project, the new development will be constructed entirely landward of the appropriate building and deck stringlines for the project site, therefore, the project will not result in seaward encroachment of development on Broad Beach. In addition, all structural development will be constructed on a caisson/grade beam foundation designed at an elevation above the maximum design wave profile to ensure stability of the beachfront development. To minimize potential adverse impacts of the beachfront development on shoreline processes and public access, no shoreline protective device is proposed as part of the development and the applicant's coastal engineering consultant has indicated that no such protection is required for protection of the proposed residence or private sewage disposal system.

The project site is located approximately 1,300 ft. east (down coast) of the nearest vertical public accessway to Broad Beach and several lateral public access ways exist along the beach. To further minimize potential adverse impacts of the proposed development on public access, the applicant is offering to dedicate a lateral public access easement over the southern beachfront portion of the site as measured from the mean high tide line landward to the ambulatory seawardmost limit of dune vegetation.

The area surrounding the project site is characterized as a built-out portion of Malibu consisting of numerous single family residences. The project site is located on the beach at an elevation over 40 ft. below Pacific Coast Highway. As such, the proposed project will not obstruct public scenic views from Pacific Coast Highway to the ocean nor will the proposed project result in a new significant adverse impact on visual resources.

The applicant has submitted evidence of review of the proposed project by the California State Lands Commission (CSLC) which indicates that the CSLC presently asserts no claims that the project is located on public tidelands although the CSLC reserves the right to any future assertion of state ownership or public rights should circumstances change.

B. SHORELINE PROCESSES AND SEAWARD ENCROACHMENT

Section 30235 of the Coastal Act states:

Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fish kills should be phased out or upgraded where feasible.

Section 30251 of the Coastal Act states that:

The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.

Finally, Section 30253 of the Coastal Act states in part that new development shall:

- (1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.
- (2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.

Past Commission review of shoreline residential projects in Malibu has shown that such development results in potential individual and cumulative adverse effects to coastal processes, shoreline sand supply, and public access. Shoreline development, if not properly designed to minimize such adverse effects, may result in encroachment on lands subject to the public trust (thus physically excluding the public); interference with the natural shoreline processes necessary to maintain publicly-owned tidelands and other public beach areas; overcrowding or congestion of such tideland or beach areas; and visual or psychological interference with the

public's access to and the ability to use public tideland areas. In order to accurately determine what adverse effects to coastal processes will result from the proposed project, it is necessary to analyze the proposed project in relation to characteristics of the project site shoreline, location of the development on the beach, and wave action.

Site Shoreline Characteristics

The proposed project site is located on Broad Beach in the City of Malibu. Broad Beach is characterized as a relatively wide beach which has been developed with numerous single family residences. A well developed, but disturbed, dune system is located along Broad Beach seaward of existing residential development. The Malibu/Los Angeles County Coastline Reconnaissance Study by the United States Army Corp of Engineers dated April 1994 indicates that residential development on Broad Beach is generally protected by the wide nature of the beach and the presence of the existing dune field. However, the report also states that Broad Beach is subject to periodic episodes of beach recession and recovery that expose development along Broad Beach to potential storm damage and flooding from severe storm events. The applicant's coastal engineering consultant has indicated that Broad Beach is an oscillating (equilibrium) beach which experiences seasonal erosion and recovery. The Wave Uprush Study prepared by Pacific Engineering Group dated June 9, 2000 further indicates that the width of the beach changes seasonally and that the subject beach experiences a seasonal foreshore slope movement (oscillation) that can be as much as 100 ft.

Stringline

As a means of controlling seaward encroachment of residential structures on a beach to ensure maximum public access and minimize wave hazards, as well as minimize adverse effects to coastal processes, shoreline sand supply, and public views, the Commission has, in past permit actions, developed the "stringline" policy. As applied to beachfront development, the stringline limits the seaward extension of a structure to a line drawn between the nearest corners of adjacent structures and limits decks to a similar line drawn between the nearest corners of the adjacent decks. The Commission has applied this policy to numerous past permits involving infill development on sandy beaches and has found it to be an effective policy tool in preventing further encroachments onto sandy beaches.

In the case of this project, the proposed development will be located landward of the appropriate building and deck stringline and will not result in the seaward encroachment of residential development on Broad Beach (Exhibit 3). Therefore, the Commission finds that the proposed project will not result in the seaward encroachment of development on Broad Beach and will serve to minimize adverse effects to coastal processes and public views.

Mean High Tide Line and Wave Uprush

The applicant has submitted information prepared by a coastal engineering consultant regarding the location of the mean high tide line on the subject site as measured during several different summer and winter months between 1951 and 2000. The applicant's coastal engineering consultant has further asserted that the most landward measurement of the ambulatory mean high tide line on the project site occurred in August 1951 when the mean high tide line onsite was located approximately 290 ft. seaward of the Broad Beach Road right-of way line. The seawardmost extension of the proposed development (the proposed deck/patio line) will be located 154 ft. seaward of the Broad Beach right-of-way line (approximately 136 ft.

landward of the August 1951 mean high tide line). Based on the submitted information, the proposed development will be located landward of the most landward measured mean high tide line of August 1951. However, the August 1951 mean high tide line has not been verified by the State Lands Commission and the measurement represents only one yearly measurement which does not provide adequate information for a definitive determination of the current location of the mean high tide line at the site. The location of the mean high tide line is ambulatory in nature and the proposed development may, at times, be subject to wave run-up that exceeds the most landward location of the proposed development.

Although the proposed structure will be located landward of the August 1951 mean high tide line, the Wave Uprush Study prepared by Pacific Engineering Group dated June 9, 2000 indicates that the maximum wave uprush at the subject site will occur approximately 202 ft. seaward of the Broad Beach Road right-of-way line (approximately 48 ft. landward of the proposed deck/patio stringline). This wave uprush analysis was based on the "use of +0.6 foot storm surge and a sealevel rise of +0.4 feet (100-year projection) resulting in a still water line (SWL) at the elevation of +7 Ft. MLLW datum." The applicant has submitted project plans designed to accommodate maximum expected wave uprush limits established by the coastal engineering consultant, which incorporate estimated 100 year sea level rise projections. The proposed project is designed such that no structural development will be located seaward of the maximum expected wave uprush line (202 ft. seaward of the Broad Beach Road right-of-way) (Exhibit 3). The applicant's coastal engineering consultant has indicated that the proposed residence will be constructed on a caisson/grade beam foundation and if constructed in conformance with the recommendations contained in the wave uprush study dated June 9, 2000, no shoreline protection device is required or proposed to protect any portion of the proposed residence.

In addition, the seaward extent of the alternative septic system and leach field will be located approximately 87 ft. from the Broad Beach Road right-of-way line (approximately 115 ft. landward of the maximum wave uprush limit). The applicant's coastal engineering consultant has concluded that because the proposed septic system will be located landward of the maximum wave uprush limit, no shoreline protection device is required to protect any portion of the proposed system.

The applicant's coastal engineering consultant has made several other recommendations regarding the foundations of the residence, floor slab elevation, and the location of the septic system in order to minimize adverse effects on coastal processes and to ensure the structural stability of the proposed development. To ensure that all recommendations of the coastal engineering consultant have been incorporated into the proposed development, **Special Condition No. One (1)** requires the applicant to submit project plans certified by the consulting coastal engineer as conforming to all recommendations contained in the Wave Uprush Study dated June 9, 2000 prepared by Pacific Engineering Group to ensure structural and site stability, and to ensure the proposed development will not result in adverse effects to shoreline processes. The final plans approved by the consultant shall be in substantial conformance with the plans approved by the Commission. Any substantial changes to the proposed development approved by the Commission which may be recommended by the consultant shall require an amendment to the permit or a new coastal permit.

Shoreline Protective Devices

In the case of the proposed project, the applicant is not proposing the construction of any shoreline protective device to protect the proposed development. Though the proposed development will be located and designed such that it will not be subject to wave uprush or over-topping under normal tidal conditions, recent winter storms, including the El Nino Event of 1998 resulted in severe erosion of the beach and caused damage to several residences located in the Broad Beach area. It is not possible to completely predict what conditions the proposed residence may be subject to in the future. The Commission notes that construction of a shoreline protective device on the project site to protect the proposed development would result in potential adverse effects to coastal processes, shoreline sand supply, and public access.

Shoreline protective devices individually and cumulatively affect coastal processes, shoreline sand supply, and public access by causing accelerated and increased erosion on the adjacent public beach. Adverse impacts resulting from shoreline protective devices may not become clear until such devices are constructed individually along a shoreline and they eventually affect the profile of an entire beach. Changes in the shoreline profile, particularly changes in the slope of the profile, caused by increased beach scour, erosion, and a reduced beach width, alters usable beach area under public ownership. A beach that rests either temporarily or permanently at a steeper angle than under natural conditions will have less horizontal distance between the mean low water and mean high water lines. This reduces the physical area of public property available for public beach use. Additionally, through the progressive loss of sand caused by increased scour and erosion, shore material is no longer available to nourish the beach and seasonal beach accretion occurs at a much slower rate. As set forth in earlier discussion, Broad Beach is currently characterized as a wide oscillating beach. However, the applicant's consultant has also indicated that seasonal foreshore slope movement on the subject site can be as much as 100 ft. The Commission notes that if a seasonal eroded beach condition occurs with greater frequency due to the placement of a shoreline protective device on the subject site, then the subject beach would also accrete at a slower rate. As the natural process of beach accretion slows the beach fails to establish a sufficient beach width, which normally functions as a buffer area absorbing wave energy. The lack of an effective beach width can allow such high wave energy on the shoreline that beach material may be further eroded by wave action and lost far offshore where it is no longer available to nourish the beach. The effect of this on public access along the beach is again a loss of beach area between the mean high water line and the actual water.

Shoreline protection devices also directly interfere with public access to tidelands by impeding the ambulatory nature of the mean high tide line (the boundary between public and private lands) during high tide and severe storm events, and potentially throughout the entire winter season. The impact of a shoreline protective device on public access is most evident on a beach where wave run-up and the mean high tide line are frequently observed in an extreme landward position during storm events and the winter season. As the shoreline retreats landward due to the natural process of erosion, the boundary between public and private land also retreats landward. Construction of rock revetments and seawalls to protect private property fixes a boundary on the beach and prevents any current or future migration of the shoreline and mean high tide line landward, thus eliminating the distance between the high water mark and low water mark. As the distance between the high water mark and low water mark becomes obsolete the seawall effectively eliminates lateral access opportunities along the beach as the entire area below the fixed high tideline is inundated. The ultimate result of a fixed tideline boundary which would normally migrate and retreat landward, while maintaining a

passable distance between the high water mark and low water mark overtime, is a reallocation of tideland ownership from the public to the private property owner.

Furthermore, if not sited landward in a location that ensures that the seawall is only acted upon during severe storm events, beach scour during the winter season will be accelerated because there is less beach area to dissipate wave energy. The adverse effects of shoreline protective devices are greater the more frequently that they are subject to wave action. In order to minimize adverse effects from shoreline protective devices, when such devices are found to be necessary to protect existing development, the Commission has required applicants to locate such structures as far landward as is feasible. In addition, since shoreline protective devices are most often required to protect existing septic systems, the Commission has also required applicants to locate septic systems as far landward as feasible. The Commission has also required the utilization of alternative technologies for sewage disposal such as bottomless sand filter systems because they can be designed to occupy less area on the beach and, therefore, be located further landward than a standard system. In the case of the proposed project, the proposed septic system will utilize a MicroFast treatment tank utilizing a bottomless sand filter design for effluent dispersal, which will be located landward (115 ft.) of the maximum wave uprush limit at the project site. The applicant's coastal engineering consultant has confirmed that no shoreline protective device is required to protect the proposed development, (the residence will be constructed entirely on an engineered caisson/grade beam foundation able to withstand wave action and avoid over topping), or to protect the septic system (which will be located 115 ft. landward of the maximum wave uprush limit).

In addition, the Commission notes that Section 30235 of the Coastal Act allows for the construction of a shoreline protective device when necessary to protect existing development or to protect a coastal dependent use. The Commission further notes that the approval of a shoreline protective device to protect new residential development, such as the proposed project, would not be required by Section 30235 of the Coastal Act. Construction of a shoreline protective device to protect a new residential development would conflict with Section 30253 of the Coastal Act which states that new development shall neither create nor contribute to erosion or geologic instability of the project site or surrounding area. In addition, the construction of a shoreline protective device to protect new residential development would also conflict with Section 30251 of the Coastal Act which states that permitted development shall minimize the alteration of natural land forms, including sandy beach areas which would be subject to increased erosion from such a device.

As described in detail above, shoreline protective devices constructed along the sandy beach at the project site have the potential to adversely impact shoreline processes and public access. Additionally, construction of a shoreline protective device to protect the proposed development would be inconsistent with Sections 30235, 30253, and 30251 of the Coastal Act. Therefore, to ensure that the proposed project is consistent with Sections 30235, 30253, and 30251 of the Coastal Act, and to ensure that the proposed project does not result in future adverse effects to coastal processes and public access, **Special Condition No. Seven (7)** requires the applicant to record a deed restriction that would prohibit the applicant, or future land owner, from constructing a shoreline protective device for the purpose of protecting any of the development proposed as part of this application including the residence, garage, pool, septic system, driveway, etc.

Sea Level Rise

Sea level has been rising slightly for many years. In the Santa Monica Bay area, the historic rate of sea level rise has been 1.8 mm/yr. or about 7 inches per century¹. Sea level rise is expected to increase by 8 to 12 inches in the 21st century.² There is a growing body of evidence that there has been a slight increase in global temperature and that an accelerated rate of sea level rise can be expected to accompany this increase in temperature. Mean water level affects shoreline erosion in several ways and an increase in the average sea level will exacerbate all these conditions.

On the California coast the effect of a rise in sea level will be the landward migration of the intersection of the ocean with the shore. On a relatively flat beach, with a slope of 40:1, every inch of sea level rise will result in a 40-inch landward movement of the ocean/beach interface. For fixed structures on the shoreline, such as a single family residence, pilings, or seawalls, an increase in sea level will increase the inundation of the structure. More of the structure will be inundated or underwater than are inundated now and the portions of the structure that are now underwater part of the time will be underwater more frequently.

Accompanying this rise in sea level will be increased wave heights and wave energy. Along much of the California coast, the bottom depth controls the nearshore wave heights, with bigger waves occurring in deeper water. Since wave energy increases with the square of the wave height, a small increase in wave height can cause a significant increase in wave energy and wave damage. Combined with the physical increase in water elevation, a small rise in sea level can expose previously protected back shore development to both inundation and wave attack, and those areas that are already exposed to wave attack will be exposed to more frequent wave attack with higher wave forces. Structures that are adequate for current storm conditions may not provide as much protection in the future.

A second concern with global warming and sea level rise is that the climatic changes could cause changes to the storm patterns and wave climate for the entire coast. As water elevations change, the transformation of waves from deep water will be altered and points of energy convergence and divergence could shift. The new locations of energy convergence would become the new erosion "hot spots" while the divergence points may experience accretion or stability. It is highly likely that portions of the coast will experience more frequent storms and the historic "100-year storm" may occur every 10 to 25 years. For most of California the 1982/83 El Niño event has been considered the "100-year storm." Certain areas may be exposed to storms comparable to the 1982/83 El Niño storms every few decades. In an attempt to ensure stability under such conditions, the Commission has required that all new shoreline structures be designed to withstand either a 100-year storm event, or a storm event comparable to the 1982/83 El Niño. Also, since it is possible that storm conditions may worsen in the future, the Commission has required that structures be inspected and maintained on a The coast can be altered significantly during a major storm and coastal structures need to be inspected on a regular basis to make sure they continue to function as designed. If storm conditions worsen in future years, the structures may require changes or modifications to remain effective. In some rare situations, storm conditions may change so

¹ Lyles, S.D., L.E. Hickman and H.A. Debaugh (1988) Sea Level Variations for the United States 1855 – 1986. Rockville, MD: National Ocean Service.

² Field et. al., Union of Concerned Scientists and the Ecological Society of America (November 1999) Confronting Climate Change in California, www.ucsusa.org.

dramatically that existing protective structures may no longer be able to provide any significant protection, even with routine maintenance.

Therefore, if new development along the shoreline is to be found consistent with the Coastal Act, the most landward location must be explored to minimize wave attack with higher wave forces as the level of the sea rises over time. Shoreline protective devices must also be located as far landward as feasible to minimize impacts on coastal processes and to protect public access along the beach. In the case of this project, the applicant has incorporated recommendations of the coastal engineering consultant with respect to maximum expected wave uprush and wave height, which include a 100-year (0.4') rise in sea level projection. The proposed project is designed to accommodate the maximum expected wave uprush and wave height limits to maximize future stability of the development with anticipated sea level rise, and the proposed development will not require the construction of a shoreline protection device.

Conclusion

The proposed residence will be located landward of the August 1951 mean high tide line and is designed such that it will not be adversely effected by maximum expected wave uprush, thereby eliminating the necessity for a shoreline protective device. The septic system for the proposed residence will be located landward of the wave uprush limit line, and therefore, will not be subject to maximum expected wave uprush or require the construction of a shoreline protective device. Further, the proposed development will be located landward of appropriate building and deck stringlines and will not result in the seaward encroachment of residential development on Broad Beach.

In addition, no shoreline protective device is proposed as part of the development. applicant's coastal engineering consultant has confirmed that no shoreline protective device is required to protect either the proposed residence or the septic system. However, as previously discussed, areas of Broad Beach have experienced extreme erosion and scour during severe storm events, such as El Nino storms. It is not possible to completely predict what conditions the proposed residence may be subject to in the future. As discussed in detail above, the construction of a shoreline protective device to protect new residential development would result in potential adverse effects to coastal processes, shoreline sand supply, and public access and would not be consistent with Sections 30235, 30251, or 30253 of the Coastal Act. Therefore, to ensure that the proposed project is consistent with Sections 30235, 30253, and 30251 of the Coastal Act, and to ensure that the proposed project does not result in adverse effects to coastal processes, Special Condition No. Seven (7) requires the applicant to record a deed restriction that would prohibit the applicant, or future land owner, from constructing a shoreline protective device for the purpose of protecting any of the development proposed as part of this application including the residence, garage, pool, septic system, driveway, etc. Further, to ensure structural and site stability, Special Condition No. One (1) requires the applicant to submit project plans certified by the consulting coastal engineer as conforming to all recommendations contained in the Wave Uprush Study dated June 9, 2000 prepared by Pacific Engineering Group.

Therefore, the Commission finds that the proposed project, as conditioned, is consistent with Coastal Act Sections 30235, 30251, and 30253.

C. HAZARDS AND GEOLOGIC STABILITY

Section 30253 of the Coastal Act states in pertinent part that new development shall:

- (1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.
- (2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.

The proposed development will be located along the Malibu coastline, an area that is generally considered to be subject to an unusually high amount of natural hazards. Geologic hazards common to the Malibu coastline include landslides, erosion, and flooding. In addition, fire is an inherent threat to the indigenous chaparral community of the coastal mountains. Even beachfront properties have been subject to wildfires. Finally, beachfront sites are specifically subject to flooding and erosion from storm waves.

The applicant has submitted a Wave Uprush Study dated June 9, 2000 prepared by Pacific Engineering Group and a Soils and Engineering Geologic Investigation dated October 19, 2000 prepared by GeoSystems, which evaluate the safety and stability of the project site in relation to the proposed development. The consultants have determined that the proposed development will serve to ensure geologic and structural stability on the subject site. The Soils and Engineering Geologic Investigation dated October 19, 2000 prepared by GeoSystems concludes that:

It is the finding of this firm that the proposed structures will be safe and that the site will not be affected by any hazard from landslide, settlement or slippage and the completed work will not adversely affect adjacent property in compliance with the Malibu City Code, provided our recommendations are followed.

The Wave Uprush Study dated June 9, 2000 prepared by Pacific Engineering Group and the Soils and Engineering Geologic Investigation dated October 19, 2000 prepared by GeoSystems include a number of geotechnical and engineering recommendations to ensure the stability and geotechnical safety of the site. To ensure that the recommendations of the geotechnical and coastal and geotechnical engineering consultants have been incorporated into all proposed development, **Special Condition No. One (1)** requires the applicant to submit project plans certified by both the consulting geotechnical engineer and the coastal engineering consultant as conforming to all their recommendations to ensure structural and site stability. The final plans approved by the consultants shall be in substantial conformance with the plans approved by the Commission. Any substantial changes to the proposed development approved by the Commission which may be recommended by the consultants shall require an amendment to the permit or a new coastal permit.

As discussed above, the Commission notes that the applicant's engineering consultants have indicated that the proposed development will serve to ensure relative geologic and structural stability on the subject site. However, the Commission also notes that the proposed development is located on a beachfront lot in the City of Malibu and will be subject to some inherent potential hazards. The Commission notes that the Malibu coast has historically been subject to substantial damage as the result of storm and flood occurrences--most recently, and

perhaps most dramatically, during the 1998 severe El Nino winter storm season. The subject site is clearly susceptible to flooding and/or wave damage from storm waves, storm surges and high tides. Past occurrences have caused property damage resulting in public costs through emergency responses and low-interest, publicly-subsidized reconstruction loans in the millions of dollars in Malibu area.

In the winter of 1977-1978, storm-triggered mudslides and landslides caused extensive damage along the Malibu coast. According to the National Research Council, damage to Malibu beaches, seawalls, and other structures during that season caused damages of as much as almost \$5 million to private property alone.

The El Nino storms recorded in 1982-1983 caused high tides of over 7 feet, which were combined with storm waves of up to 15 feet. These storms caused over \$12.8 million to structures in Los Angeles County, many located in Malibu. The severity of the 1982-1983 El Nino storm events are often used to illustrate the extreme storm event potential of the California, and in particular, Malibu coast. The 1998 El Nino storms also resulted in widespread damage to residences, public facilities and infrastructure along the Malibu Coast.

Thus, ample evidence exists that all beachfront development in the Malibu area is subject to an unusually high degree of risk due to storm waves and surges, high surf conditions, erosion, and flooding. The proposed development will continue to be subject to the high degree of risk posed by the hazards of oceanfront development in the future. The Coastal Act recognizes that development, even as designed and constructed to incorporate all recommendations of the consulting coastal and geotechnical engineers, may still involve the taking of some risk. When development in areas of identified hazards is proposed, the Commission considers the hazard associated with the project site and the potential cost to the public, as well as the individual's right to use the subject property.

The Commission finds that due to the possibility of liquefaction, storm waves, surges, erosion, flooding, and wildfire, the applicant shall assume these risks as conditions of approval. Because this risk of harm cannot be completely eliminated, the Commission requires the applicant to waive any claim of liability against the Commission for damage to life or property which may occur as a result of the permitted development. The applicant's assumption of risk, as required by **Special Condition No. Four (4)**, when executed and recorded on the property deed, will show that the applicant is aware of and appreciates the nature of the hazards which exist on the site, and that may adversely affect the stability or safety of the proposed development.

In addition, the Commission notes that construction activity on a sandy beach, such as the proposed project, will result in the potential generation of debris and or presence of equipment and materials that could be subject to tidal action. The presence of construction equipment, building materials, and excavated materials on the subject site could pose hazards to beachgoers or swimmers if construction site materials were discharged into the marine environment or left inappropriately/unsafely exposed on the project site. In addition, such discharge to the marine environment would result in adverse effects to offshore habitat from increased turbidity caused by erosion and siltation of coastal waters. To ensure that adverse effects to the marine environment are minimized, **Special Condition No. Eight (8)** requires the applicant to ensure that stockpiling of construction materials shall not occur on the beach, that no machinery will be allowed in the intertidal zone at any time, all debris resulting from the construction period is promptly removed from the sandy beach area, all grading shall be

properly covered, and that sand bags and/or ditches shall be used to prevent runoff and siltation.

The Commission finds, for the reasons set forth above, that the proposed development, as conditioned, is consistent with Section 30253 of the Coastal Act.

D. PUBLIC ACCESS

The Coastal Act mandates the provision of maximum public access and recreational opportunities along the coast. The Coastal Act contains several policies which address the issues of public access and recreation along the coast.

Coastal Act Section 30210 states that:

In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

Coastal Act Section 30211 states:

Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.

Coastal Act Section 30212(a) provides that in new shoreline development projects, access to the shoreline and along the coast shall be provided except in specified circumstances, where:

- (1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources.
- (2) adequate access exists nearby, or,
- (3) agriculture would be adversely affected. Dedicated access shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the accessway.

Section 30220 of the Coastal Act states that:

Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such use.

Coastal Act sections 30210 and 30211 mandate that maximum public access and recreational opportunities be provided, including use of dry sand and rocky coastal beaches, and that development not interfere with the public's right to access the coast. Likewise, section 30212 of the Coastal Act requires that adequate public access to the sea be provided except where it would be inconsistent with public safety, military security needs, protection of fragile coastal resources and agriculture, or where adequate access exists nearby.

All projects requiring a coastal development permit must be reviewed for compliance with the public access and recreation provisions of Chapter 3 of the Coastal Act. Based on the access,

recreation and development sections of the Coastal Act, the Commission has required public access to and along the shoreline in new development and has required design changes in other projects on the coast to reduce interference with access to and along the shoreline.

The major access issue in this permit application is the occupation of sandy beach area by a structure and potential effects on shoreline sand supply, which sustains public access opportunities, in contradiction of Coastal Act policies 30210, 30211 and 30212. The subject site is located on Broad Beach, approximately 1,300 ft. east of an existing public vertical accessway to Broad Beach, which provides access to several public lateral accessways along the beach. Members of the public who access the beach via the public vertical accessways from Broad Beach Road often walk along the shoreline, including the southern beachfront portion of the subject site, up and down the coast from the project site between Lechuza Point and public recreation areas such as Zuma Beach County Park and Point Dume.

The State owns tidelands, which are those lands located seaward of the mean high tide line as it exists from time to time. By virtue of its admission into the Union, California became the owner of all tidelands and all lands lying beneath inland navigable waters. These lands are held in the State's sovereign capacity and are subject to the common law public trust. The public trust doctrine restricts uses of sovereign lands to public trust purposes, such as navigation, fisheries, commerce, public access, water oriented recreation, open space, and environmental protection. The public trust doctrine also severely limits the ability of the State to alienate these sovereign lands into private ownership and use free of the public trust. Consequently, the Commission must avoid decisions that improperly compromise public ownership and use of sovereign tidelands.

Where development is proposed that may impair public use and ownership of tidelands, the Commission must consider where the development will be located in relation to tidelands. The legal boundary between public tidelands and private uplands is relative to the ordinary high water mark. In California, where the shoreline has not been affected by fill or artificial accretion, the ordinary high water mark of tidelands is determined by locating the existing "mean high tide line." The mean high tide line is the intersection of the elevation of mean high tide with the shore profile. Where the shore is composed of sandy beach in which the profile changes as a result of wave action, the location at which the elevation of the mean high tide line intersects the shore is subject to change. The result is that the mean high tide line (and therefore the boundary) is an "ambulatory" or moving line that moves seaward through the process known as accretion and landward through the process known as erosion.

Consequently, the position of the mean high tide line fluctuates seasonally as high wave energy (usually but not necessarily) in the winter months causes the mean high tide line to move landward through erosion, and as milder wave conditions (generally associated with the summer) cause the mean high tide line to move seaward through accretion. In addition to ordinary seasonal changes, the location of the mean high tide line is affected by long term changes such as sea level rise and diminution of sand supply.

The Commission must consider a project's direct and indirect effect on public tidelands. To protect public tidelands when beachfront development is proposed, the Commission must consider (1) whether the development or some portion of it will encroach on public tidelands (i.e., will the development be located below the mean high tide line as it may exist at some point throughout the year) and (2) if not located on tidelands, whether the development will indirectly affect tidelands by causing physical impacts to tidelands. In the case of the proposed project,

the State Lands Commission presently does not assert a claim that the project intrudes onto sovereign lands. However, structures currently located above the mean high tide line may have an adverse effect on shoreline processes as wave energy reflected by those structures contributes to erosion and steepening of the shore profile, and ultimately to the extent and availability of tidelands. That is why the Commission also must consider whether the project will have indirect effects on public ownership and public use of shorelands. The applicant seeks Commission approval of a new beachfront residence supported on a caisson/grade beam foundation. As previously discussed in detail in Section B., although the proposed project will not include the construction of a shoreline protective device, the direct occupation of sandy beach area by the proposed residence will result in potential adverse effects to public access along the sandy beach.

Public use rights of the beach are implicated as the public walks the wet or dry sandy beach below the mean high tide plane. This area of use, in turn moves across the face of the beach as the beach changes in depth on a daily basis. The free movement of sand on the beach is an integral part of this process, and it is here that the effects of shoreline structures are of concern. Though no shoreline protective device is proposed as part of this project, the Commission notes that construction of a shoreline protective device interferes with the natural movement of sand on the beach and has a number of adverse effects on the dynamic shoreline system and the public's beach ownership interests.

Shoreline protective devices individually and cumulatively affect public access by causing accelerated and increased erosion on the adjacent public beach. Adverse impacts resulting from shoreline protective devices may not become clear until such devices are constructed individually along a shoreline and they eventually affect the profile of an entire beach. Changes in the shoreline profile, particularly changes in the slope of the profile, caused by increased beach scour, erosion and a reduced beach width, alters usable beach area under public ownership. A beach that rests either temporarily or permanently at a steeper angle than under natural conditions will have less horizontal distance between the mean low water and mean high water lines. This reduces the physical area of public property available for public beach use. Additionally, through the progressive loss of sand caused by increased scour and erosion. shore material is no longer available to nourish the beach and seasonal beach accretion occurs at a much slower rate. As the natural process of beach accretion slows the beach fails to establish a sufficient beach width, which normally functions as a buffer area absorbing wave energy. The lack of an effective beach width can allow such high wave energy on the shoreline that beach material may be further eroded by wave action and lost far offshore where it is no longer available to nourish the beach. The effect of this on public access along the beach is again a loss of beach area between the mean high water line and the actual water. Furthermore, if not sited landward in a location that insures that the seawall is only acted upon during severe storm events, the seawall will experience frequent wave interaction and cause accelerated beach scour during the winter season when there is less beach area to dissipate wave energy.

Shoreline protection devices also directly interfere with public access to tidelands by impeding the ambulatory nature of the mean high tide line (the boundary between public and private lands) during high tide and severe storm events, and potentially throughout the entire winter season. The impact of a shoreline protective device on public access is most evident on beaches where wave run-up and the mean high tide line are more frequently observed in an extreme landward position during storm events and the winter season. As the shoreline retreats landward due to the natural process of erosion, the boundary between public and

private land also retreats landward. Construction of rock revetments and seawalls to protect private property fixes a boundary on the beach and prevents any current or future migration of the shoreline and mean high tide line landward, thus eliminating the distance between the high water mark and low water mark. As the distance between the high water mark and low water mark becomes obsolete the seawall effectively eliminates lateral access opportunities along the beach as the entire area below the fixed high tide line is inundated. The ultimate result of a fixed tide line boundary which would normally migrate and retreat landward, while maintaining a passable distance between the high water mark and low water mark overtime, is a reallocation of tideland ownership from the public to the private property owner.

As described in detail above, shoreline protective devices constructed along the sandy beach at the project site have the potential to adversely impact shoreline processes and public access. Additionally, construction of a shoreline protective device to protect the proposed development would be inconsistent with Sections 30235, 30253, and 30211 of the Coastal Act. Therefore, the Commission finds it necessary to ensure that the proposed project is consistent with Sections 30235, 30253, and 30211 of the Coastal Act, and to ensure that the proposed project does not result in future adverse effects to coastal processes and public access, **Special Condition No. Seven (7)** requires the applicant to record a deed restriction that would prohibit the applicant, or future land owner, from constructing a shoreline protective device for the purpose of protecting any of the development proposed as part of this application including the residence, garage, pool/spa, patios, septic system, etc.

The Commission must also consider whether a project affects any public right to use shorelands that exist independently of the public's ownership of tidelands. In addition to a new development's effects on tidelands and on public rights protected by the common law public trust doctrine, the Commission must consider whether the project will affect a public right to use beachfront property, independent of who owns the underlying land on which the public use takes place. Generally, there are three additional types of public uses identified as: (1) the public's recreational rights in navigable waters guaranteed to the public under the California Constitution and state common law, (2) any rights that the public might have acquired under the doctrine of implied dedication based on continuous public use over a five-year period; and (3) any additional rights that the public might have acquired through public purchase or offers to dedicate.

In the case of the proposed project, the State Lands Commission presently does not assert claims that the project would extend into an area that is subject to the public trust easement in navigable waters. Additionally, the extent of historic public use of the subject beach has not been established, therefore, staff currently has no substantiating evidence that the public has use rights acquired under the doctrine of implied dedication. It should be noted, however, that Broad Beach has some degree of historic public use by both members of the public who do not live along Broad Beach Road, as well as local residents. The public readily has access to this section of beach via a dedicated vertical public accessway located 1,300 ft. east of the subject site, in addition to at least one other vertical access easements providing access from Broad Beach Road to broad Beach and the adjacent downcoast Zuma Beach. Numerous lateral access easements also exist along the shoreline of Broad Beach. Observations by Commission Staff over the past two decades, in addition to the presence of signs posted on many of the beachfront residences indicating that the beach is a "private" beach, provide evidence of substantial public use of the public trust lands along Broad Beach. Thus, the Commission finds that the public's ability to achieve continued access on the subject beach must be protected consistent with the requirements of applicable policies of the Coastal Act.

The beaches of Malibu are extensively used by both local and non-local visitors. Most planning and demographic studies indicate that attendance of recreational sites in Southern California will continue to increase significantly over the coming years. The public has a right to use the shoreline under the public trust doctrine, the California Constitution and California common law. The Commission must protect public access rights by assuring that the proposed shoreline development does not interfere with those rights. In the case of the proposed project, there is a potential for loss of sandy beach used by the public as a result of a change in the beach profile, or steepening from potential scour and erosion effects caused by construction of a residential structure over the sandy beach.

In past permit actions, the Commission has required that all new development on a beach, including new single family residences, provide for lateral public access along the beach in order to minimize any adverse effects to public access. In order to conclude with absolute certainty what adverse effects would result from the proposed project in relation to shoreline processes, a historical shoreline analysis based on site-specific studies would be necessary. Although this level of analysis has not been submitted by the applicant, the Commission notes that because the applicant has proposed, as part of the project, an offer to dedicate a lateral public access easement along the southern portion of the lot, as measured from the mean high tide line landward to the ambulatory seawardmost limit of dune vegetation, it has not been necessary for Commission staff to engage in an extensive analysis as to whether imposition of an offer to dedicate would be required here absent the applicant's proposal. As such, **Special Condition No. Six (6)** has been required in order to ensure that the applicant's offer to dedicate a lateral public access easement is transmitted prior to the issuance of the coastal development permit.

In addition, the Commission notes that chronic unauthorized postings of signs illegally attempting to limit, or erroneously noticing restrictions on public access have occurred on beachfront private properties in the Malibu area. Many homes along this section of beach post signage, which indicates that at least a portion of the beach is "private". A majority of the signs indicate that the subject beach is private property up to the mean high tide line, which the signs define as a certain distance from the structure to the sea. No legal verification of the accuracy of the signs is available. These signs have an adverse effect on the ability of the public to access public trust lands as well as several public lateral access easements that exist along the beach. In fact, staff notes that more conflicts between private property owners and public beachgoers have been documented along Broad Beach than along any other beach in the Malibu area and that a "Private Beach Patrol" has been used by the Broad Beach Homeowner's Association in past years to patrol Broad Beach and enforce a "No Trespassing" policy. Staff has received numerous complaints, particularly during summer months, from beachgoers who have stated that private residents, or the Beach Patrol, have inhibited public access along Broad Beach. The Commission has determined, therefore, that to ensure that the applicant clearly understands that such postings are not permitted without a separate coastal development permit, it is necessary to impose Special Condition No. Nine (9) to ensure that similar signs are not posted on or near the proposed project site. Signs limiting public access within that portion of the site designated as environmentally sensitive dune habitat buffer may be allowed if a separate coastal development permit or amendment is obtained. Commission finds that if implemented, Special Condition No. Nine will protect the public's right of access to the sandy beach below the MHTL.

For the reasons set forth above, the Commission finds that as conditioned, the proposed project is consistent with Sections 30210, 30211, and 30212 of the Coastal Act.

E. ENVIRONMENTALLY SENSITIVE RESOURCES

Section 30240 states:

- (a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas.
- (b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade such areas, and shall be compatible with the continuance of such habitat areas.

Section 30240 of the Coastal Act states that environmentally sensitive habitat areas (ESHAs) must be protected against disruption of habitat values. To assist in the determination of whether a project is consistent with section 30240 of the Coastal Act, the Commission has, in past coastal development permit actions for new development in the Malibu area, looked to the previously certified County of Los Angeles Malibu/Santa Monica Mountains Land Use Plan (LUP) for guidance. The LUP has been found to be consistent with the Coastal Act and provides specific standards for development along the Malibu coast and within the Santa Monica Mountains. For instance, Policy 72 of the LUP provides that when new development is proposed adjacent to an environmentally sensitive habitat area, open space or conservation easements shall be required in order to protect resources within the ESHA. In addition, Policy 104 of the LUP provides that restoration of damaged sensitive habitat(s) shall be required as a condition of permit approval. Further, Policy 109 of the LUP provides that for all new development on Broad Beach, vegetation disturbance, including recreation or foot traffic on vegetated dunes, be minimized and where access through the dunes is necessary, well-defined footpaths shall be developed and used.

A vegetated dune system, designated as environmentally sensitive habitat area (ESHA) by the LUP, is located along the southern beachfront portion of the subject site. Although the dune system on the subject site has been highly disturbed from past residential development, the Commission has found in past permit actions that Broad Beach is unique in that it is the only area along the Malibu coastline where a system of vegetated sand dunes is found. Native plant species found on the dune system which are characteristic of dune habitat include: Silver beach bur (Ambrosia chamssonis), Pink sand verbena (Abronia umbellata), Beach salt bush (Atriplex leucophylla), and Beach evening primrose (Camissonia cheiranthifolia). The Commission further notes that the Broad Beach dunes have been classified as "Southern Foredunes" in the Holland community classification system by the California Department of Fish and Game and that such dune communities are listed as "very threatened" by the State of California.

The Commission notes that the existing dune system on the subject site is highly degraded and has been partially colonized by invasive plant species as a result of past residential development along Broad Beach. In past permit actions, the Commission has found that new development located immediately adjacent to environmentally sensitive habitat areas, such as the dune system located along Broad Beach, results in potential adverse effects to those habitat areas. Specifically, the Commission has found that residential development on Broad Beach results in adverse effects to the existing dune system from increased erosion resulting from foot traffic to the beach through the dune system by homeowners, septic effluent infiltrating the dune system, and introduction of non-native and invasive plant species used for landscaping. The adverse effects to the existing dune system further cause loss of plant and

animal habitat and disturbance to wildlife. The proposed development will be located immediately landward of the existing dune vegetation habitat. In order to mitigate any potential adverse impacts to the dune vegetation habitat that result from the proposed development, Special Condition No. Three (3) requires, in part, that the applicant submit a dune habitat restoration program that would provide for the removal of all invasive and non-native plant species from the existing dune system on site and revegetation of the system with native plant species appropriate for dune habitat. Special Condition No. Three also requires the applicant to submit, on an annual basis for a period of five years, a written report, for the review and approval of the Executive Director, prepared by an environmental resource specialist, indicating the success or failure of the restoration project. At the end of a five year period, a final detailed report shall be submitted for the review and approval of the Executive Director. If the report indicates that the restoration project has in part, or in whole, been unsuccessful based on the approved performance standards, the applicant shall be required to submit a revised or supplemental program to compensate for those portions of the original program which were not successful. The revised or supplemental dune restoration program shall be processed as an amendment to this Coastal Development Permit.

In addition, the Commission notes that the use of non-native and/or invasive plant species for residential landscaping results in both direct and indirect adverse effects to native plants species indigenous to the Malibu/Santa Monica Mountains area. Direct adverse effects from such landscaping result from the direct occupation or displacement of native plant community habitat by new development and associated non-native landscaping. Indirect adverse effects include offsite migration and colonization of native plant species habitat by non-native/invasive plant species (which tend to outcompete native species) adjacent to new development. The Commission notes that the use of exotic plant species for residential landscaping has already resulted in significant adverse effects to native plant communities in the Malibu/Santa Monica Mountains area. Therefore, in order to minimize adverse effects to the indigenous plant communities of the Malibu/Santa Monica Mountains area and the adjacent environmentally sensitive dune habitat, Special Condition No. Three also requires that all landscaping consist primarily of native plant species and that invasive plant species shall not be used. Finally, Special Condition No. Three also requires that the existing invasive plant species located on the project site be removed.

Further, in order to ensure that adverse effects to the dune habitat on the project site from new development are minimized, **Special Condition No. Five (5)** requires that the applicant's proposal to record an open space deed restriction over the portion of the subject site between the deck/patio line and the ambulatory seawardmost limit of dune vegetation is implemented. It is recognized that the seaward limit of the dune system and dune vegetation on the subject site is ambulatory in nature and that, therefore, the seaward extent of the area subject to this deed restriction is also ambulatory in nature. Specifically, the Commission notes that the landward limit of the lateral public access easement required by Special Condition No. Six and the seaward limit of the open space easement required by Special Condition No. Five are both ambulatory and contiguous lines which will move in unison either seaward or landward of their current location in response to changing tidal or geomorphic conditions. This deed restriction shall in no way be interpreted to limit or restrict the area of beach available for lateral public access consistent with Special Condition No. Six.

Finally, the Commission has found that night lighting of areas in the Malibu / Santa Monica Mountains area creates a visual impact to nearby scenic beaches, scenic roads, parks, and trails. In addition, night lighting may alter or disrupt feeding, nesting, and roosting activities of

native wildlife species. The subject site contains designated environmentally sensitive habitat area in the Malibu/Santa Monica Mountains Land Use Plan. Therefore, the Commission limits the nighttime lighting of the property and residence to that necessary for safety as outlined in **Special Condition No. Ten (10)**, which restricts night lighting of the site in general; limits lighting to the developed area of the site; and specifies that lighting be shielded downward.

The Commission finds that, as conditioned, the proposed project is consistent with Section 30240 of the Coastal Act.

F. WATER QUALITY

The Commission recognizes that new development in the Santa Monica Mountains has the potential to adversely impact coastal water quality through the removal of native vegetation, increase of impervious surfaces, increase of runoff, erosion, and sedimentation, and introduction of pollutants such as petroleum, cleaning products, pesticides, and other pollutant sources, as well as effluent from septic systems. Section 30231 of the Coastal Act states:

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, minimizing alteration of natural streams.

As described above, the proposed project includes the demolition of an existing residence and construction of a new single family residence and a new alternative sewage disposal system. Additionally, the development will include impervious structures such as a new driveway decks, and patios. Use of the site for residential purposes will introduce potential sources of pollutants such as petroleum, household cleaners and pesticides, as well as other accumulated pollutants from rooftops and other impervious surfaces.

The proposed development will result in an increase in impervious surface, which in turn decreases the infiltrative function and capacity of existing permeable land and beach on site. A reduction in permeable space therefore leads to an increase in the volume and velocity of stormwater runoff that can be expected to leave the site. Further, pollutants commonly found in runoff associated with residential use include petroleum hydrocarbons including oil and grease from vehicles; heavy metals; synthetic organic chemicals including paint and household cleaners; soap and dirt from washing vehicles; dirt and vegetation from yard maintenance; litter; fertilizers, herbicides, and pesticides; and bacteria and pathogens from animal waste. The discharge of these pollutants to coastal waters can cause cumulative impacts such as: eutrophication and anoxic conditions resulting in fish kills and diseases and the alteration of aquatic habitat, including adverse changes to species composition and size; excess nutrients causing algae blooms and sedimentation increasing turbidity which both reduce the penetration of sunlight needed by aquatic vegetation which provide food and cover for aquatic species; disruptions to the reproductive cycle of aquatic species; and acute and sublethal toxicity in marine organisms leading to adverse changes in reproduction and feeding behavior. These impacts reduce the biological productivity and the quality of coastal waters and reduce optimum populations of marine organisms and have adverse impacts on human health.

Therefore, in order to find the proposed development consistent with the water and marine resource policies of the Coastal Act, the Commission finds it necessary to require the incorporation of Best Management Practices designed to control the volume, velocity and pollutant load of stormwater leaving the proposed development area of site. Critical to the successful function of post-construction structural BMPs in removing pollutants in stormwater to the Maximum Extent Practicable (MEP), is the application of appropriate design standards for sizing BMPs. The majority of runoff is generated from small storms because most storms are small. Additionally, storm water runoff typically conveys a disproportionate amount of pollutants in the initial period that runoff is generated during a storm event. Designing BMPs for the small, more frequent storms, rather than for the large infrequent storms, results in improved BMP performance at lower cost.

The Commission finds that sizing post-construction structural BMPs to accommodate (infiltrate, filter or treat) the runoff from the 85th percentile storm runoff event, in this case, is equivalent to sizing BMPs based on the point of diminishing returns (i.e. the BMP capacity beyond which, insignificant increases in pollutants removal (and hence water quality protection) will occur, relative to the additional costs. Therefore, the Commission requires the selected post-construction structural BMPs be sized based on design criteria specified in **Special Condition No Two (2)**, and finds this will ensure the proposed development will be designed to minimize adverse impacts to coastal resources, in a manner consistent with the water and marine policies of the Coastal Act.

Finally, the applicant is requesting approval for installation of a new alternative sewage disposal system. The Commission notes that the new septic system is an upgraded septic system with secondary treatment that has received approval-in-concept from the City of Malibu Environmental Health Specialist as conforming with all minimum requirements of the Uniform Plumbing Code.

The Commission has found in past permit actions that compliance with the health and safety codes and recommendations set forth by consulting geologists will minimize any potential for wastewater discharge that could adversely impact coastal waters. Therefore, the Commission finds that the proposed project, as conditioned, is consistent with Section 30231 of the Coastal Act.

G. VISUAL RESOURCES

Section 30251 of the Coastal Act states that:

The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.

Section 30251 of the Coastal Act requires public views to and along the ocean and scenic coastal areas to be considered and protected when siting new development. The proposed project includes the construction of a new two story, 28 ft. high single family residence. As

previously mentioned, the proposed project is located on Broad Beach between Broad Beach Road and the ocean. The proposed project will be constructed at an elevation over 40 ft. below Pacific Coast Highway, therefore, the project will not obstruct scenic views from Pacific Coast Highway to and along the coastline. Additionally, the proposed project constitutes infill development in a built-out section of coastline in Malibu and all proposed development will be constructed landward of the appropriate building and deck stringlines established at the project site so as not to obstruct visual resources along the shoreline. Therefore, the Commission finds that the project, as proposed, will not significantly impact public views to or along the beach and is consistent with Section 30251 of the Coastal Act.

H. LOCAL COASTAL PROGRAM

Section 30604(a) of the Coastal Act states:

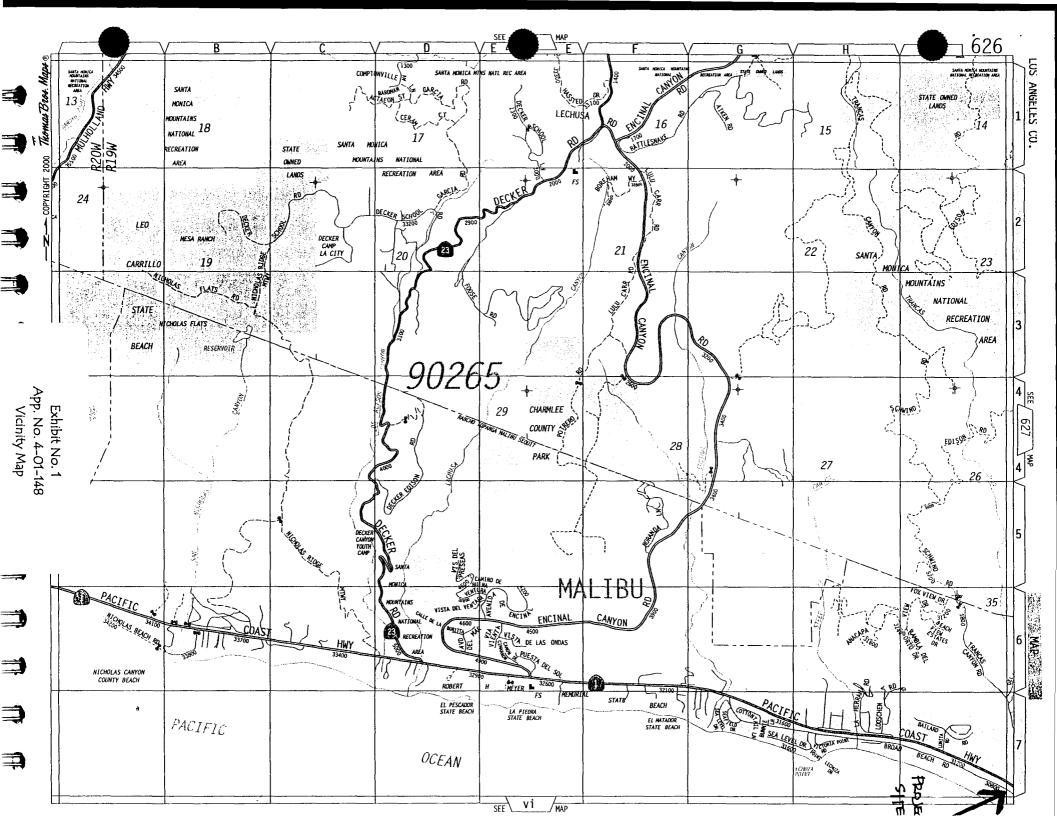
Prior to certification of the local coastal program, a coastal development permit shall be issued if the issuing agency, or the Commission on appeal, finds that the proposed development is in conformity with the provisions of Chapter 3 (commencing with Section 30200) of this division and that the permitted development will not prejudice the ability of the local government to prepare a local program that is in conformity with the provisions of Chapter 3 (commencing with Section 30200).

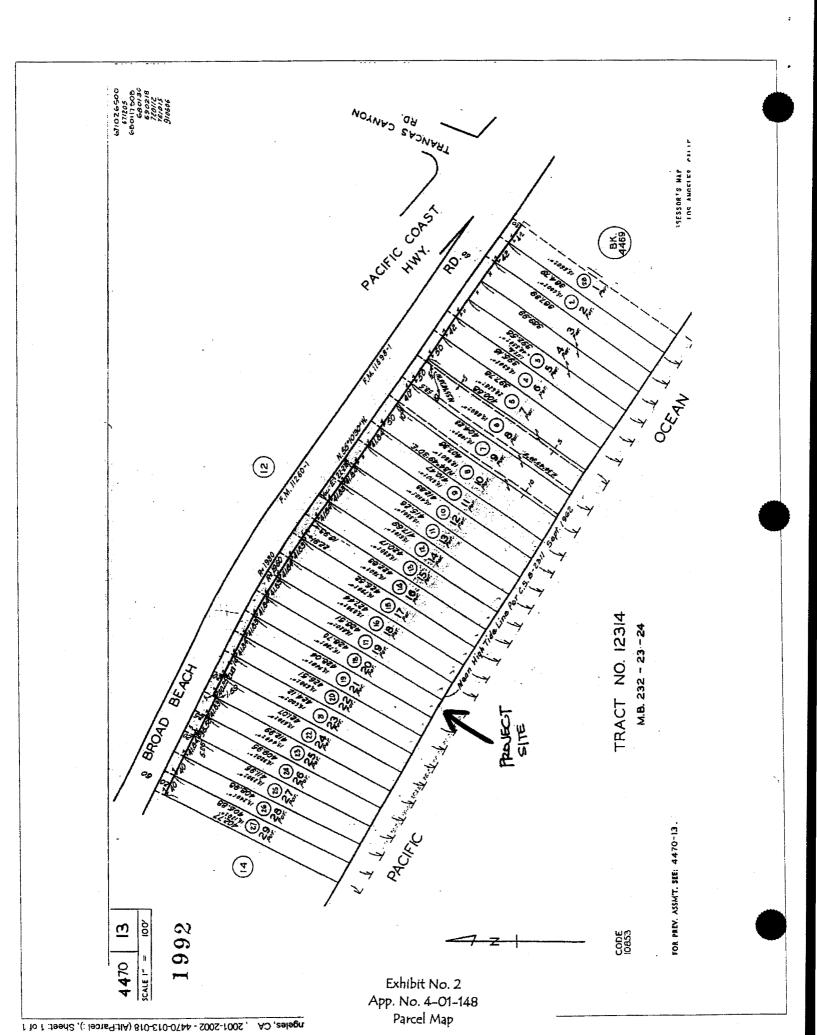
Section 30604(a) of the Coastal Act provides that the Commission shall issue a coastal permit only if the project will not prejudice the ability of the local government having jurisdiction to prepare a Local Coastal Program which conforms with Chapter 3 policies of the Coastal Act. The preceding sections provide findings that the proposed project will be in conformity with the provisions of Chapter 3 if certain conditions are incorporated into the project and accepted by the applicant. As conditioned, the proposed project will not create adverse impacts and is found to be consistent with the applicable policies contained in Chapter 3 of the Coastal Act. Therefore, the Commission finds that approval of the proposed development, as conditioned, will not prejudice the City's ability to prepare a Local Coastal Program for Malibu which is consistent with the policies of Chapter 3 of the Coastal Act as required by §30604(a).

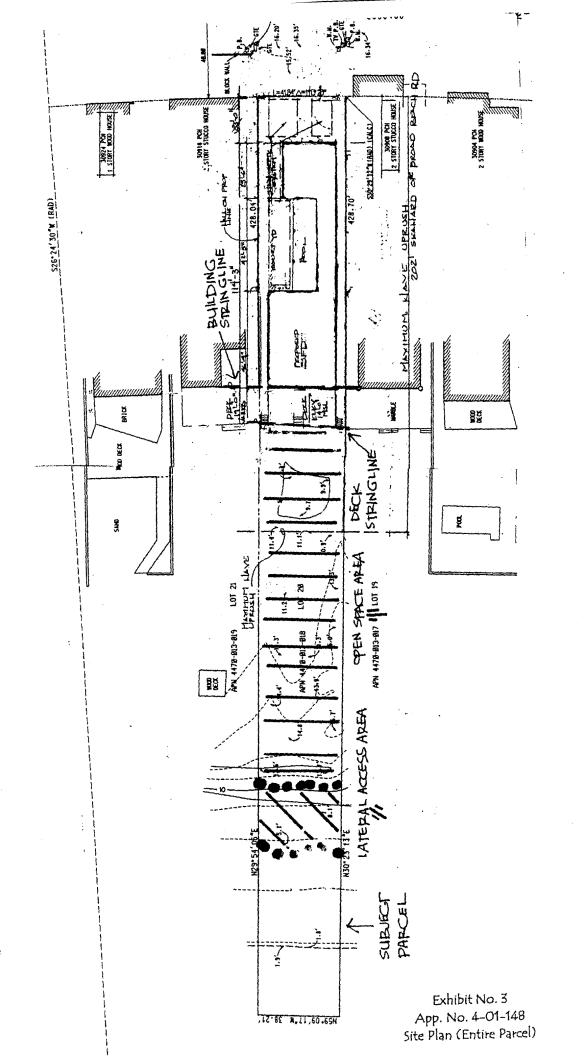
I. CALIFORNIA ENVIRONMENTAL QUALITY ACT

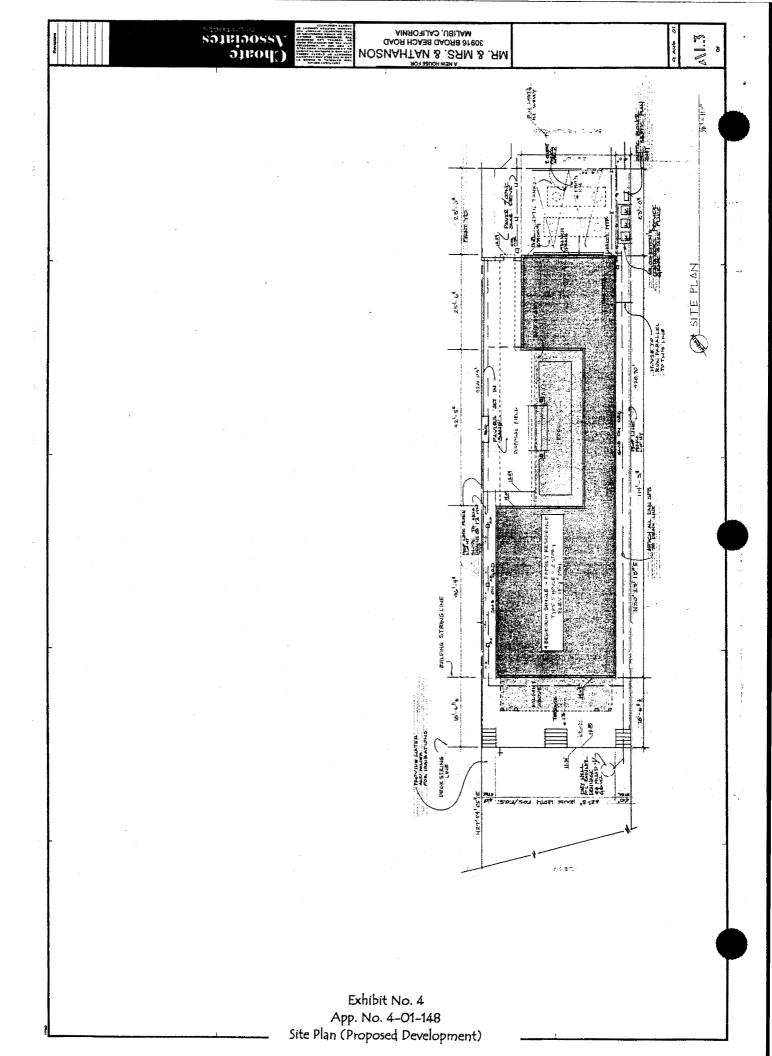
Section 13096(a) of the Commission's administrative regulations requires Commission approval of a Coastal Development Permit application to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California Environmentally Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect that the activity may have on the environment.

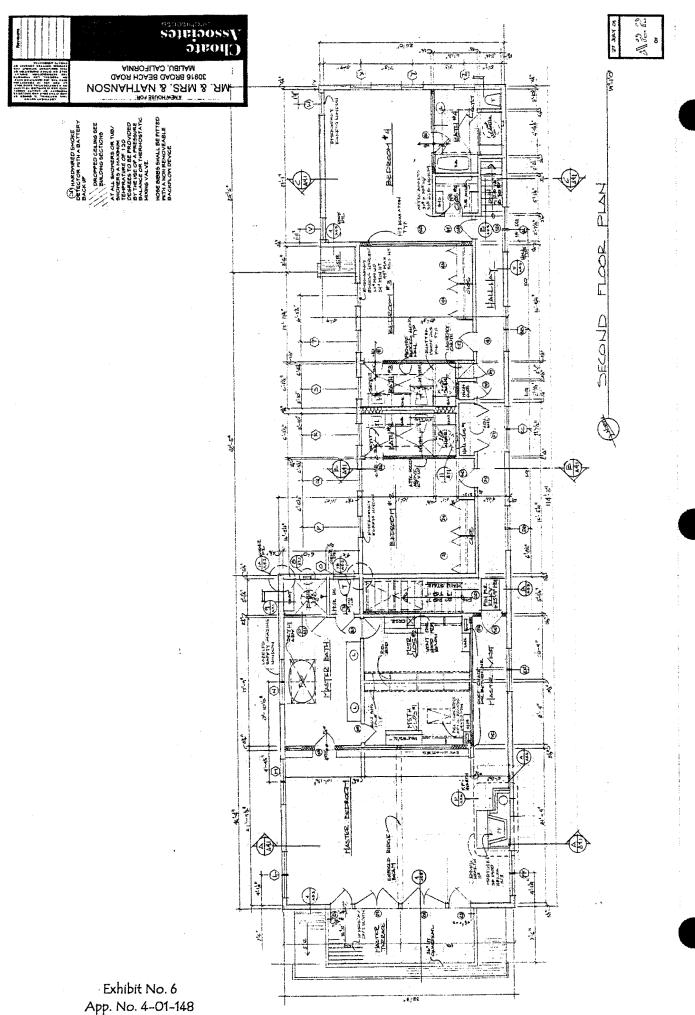
The Commission finds that, the proposed project, as conditioned, will not have any significant adverse effects on the environment, within the meaning of the California Environmental Quality Act of 1970. Therefore, the proposed project, as conditioned, has been adequately mitigated and is determined to be consistent with CEQA and the policies of the Coastal Act.











App. No. 4-01-148 Second Floor Plan

