

CALIFORNIA COASTAL COMMISSION

SOUTH CENTRAL COAST AREA
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 Hearing Date: 10/12-15/99
 Commission Action:

STAFF REPORT: REGULAR CALENDAR

APPLICATION NO.: 4-98-214

**APPLICANT: Malibu Colony Beach Trust, AGENT: A. Thomas Torres, AIA
 Madison Graves, Trustee**

PROJECT LOCATION: 23910 Malibu Road, City of Malibu, Los Angeles County

PROJECT DESCRIPTION: Construct a 1,322 sq. ft. two story garage & studio to existing single family residence, new septic tank, and 'unpermitted' concrete underpinning of an existing vertical seawall/bulkhead, including a new offer to dedicate lateral public access.

Lot area:	34,455 sq. ft.
Building coverage:	3,530 sq. ft.
Pavement coverage:	3,954 sq. ft.
Landscape coverage:	2,100 sq. ft.
Parking spaces:	4 spaces
Ht abv fin grade:	25 ft.

SUMMARY OF STAFF RECOMMENDATION:

Staff is recommending approval, subject to eight Special Conditions, for the proposed residential addition on the landward side of an existing residence and the construction of an 'unpermitted' concrete underpinning to an existing 82 foot long vertical concrete bulkhead. Staff recommends that the seaward encroaching toe of the underpinning be removed by March 31, 2002 or sooner to allow the applicant to choose one of two winter seasons, after obtaining all permits, to complete the removal of the seaward encroachment of the underpinning.

The first and second floor additions to the residence will be located on the landward side of the residence within the stringline of adjoining properties. The subject site includes a two story residence remodeled and enlarged in 1986 with

a vertical concrete bulkhead constructed in 1987, as approved by the Coastal Commission.

Staff is recommending approval of the proposed project subject to the following Special Conditions which would bring the project into conformance with the Coastal Act: revised plans for removal of seaward encroachment of seawall underpinning and provisional term for shoreline protective structure and deed restriction; assumption of risk waiver of liability and indemnity; plans conforming to geology and engineering report recommendations; construction responsibilities and debris removal; seawall installation and future limitations, new offer to dedicate a lateral public access easement, sign restrictions; and condition compliance. The proposed project, as conditioned, will eliminate any adverse impacts on lateral public access.

STAFF NOTE:

This application must be acted on by the Commission by November 10, 1999 to meet the requirements of the Permit Streamlining Act. This time limit may be extended up to an additional 90 days, at the applicant's option, to allow additional time for the Commission to consider this application. Staff recommends that the Commission act on this application at the October 12 - 15, 1999 meeting, by approving this application with conditions and adopting the findings in this report.

LOCAL APPROVALS RECEIVED: City of Malibu Planning Department Approval in Concept, dated 7/17/98; City of Malibu Environmental Health Department Approval in Concept, dated May 26, 1998; City of Malibu Geology and Geotechnical Engineering Review, Approved in Concept, dated 6/24/98.

SUBSTANTIVE FILE DOCUMENTS: Certified Malibu/Santa Monica Mountains Land Use Plan; U. S. Army Corps of Engineers, Los Angeles District, Reconnaissance Report, dated April 1994; Moffatt & Nichol, Engineers, Opportunities and Constraints, dated June 30, 1992; California State Lands Commission letters dated November 5, 1997 and January 5, 1999; Update Geotechnical Engineering Report, West Coast Geotechnical, dated April 9, 1998; Update Engineering Geologic Report, Mountain Geology, Inc., dated March 24, 1998; Engineering Geologic Memorandum, Mountain Geology, Inc., dated June 7, 1998; Report on Observation of Construction of Underpinning of Existing Concrete Bulkhead Wall, David Weiss Structural Engineer & Associates, dated April 1, 1998; Coastal Engineering Report, David Weiss Structural Engineer & Associates, dated January 1, 1999; Response to Coastal Commission Request for Additional Information, David Weiss Structural Engineer & Associates, dated March 26, 1999; Response to Coastal Commission Request for Additional Information Regarding Feasibility of Relocating That Portion of the Existing Concrete Bulkhead Wall Underpinning Located Seaward of the Toe of the Existing Wall, David Weiss Structural Engineer & Associates, dated June 25,

1999; Underpinning of Existing Concrete Bulkhead Wall, David Weiss Structural Engineer & Associates, dated July 2, 1999; Coastal Development Permit No. 5-85-512, Irmas; Coastal Development Permit No. 5-85-512-A-1, Irmas; Coastal Development Permit No. 5-85-512-A-2, Irmas; Coastal Development Permit No. 4-98-085, Harris Family Trust; Coastal Development Permit No. 4-97-191, Kim; Coastal Development Permit No. 4-98-158, O'Conner; Coastal Development Permit No. 4-99-86, Greene; Coastal Development Permit No. 4-98-085, Algagem; Coastal Development Permit No. 4-99-086, Greene.

STAFF RECOMMENDATION:

The staff recommends that the Commission adopt the following resolution:

I. **Approval with Conditions.**

The Commission hereby grants, subject to the conditions below, a permit for the proposed development on the grounds that the development, as conditioned, will be in conformity with the provisions of Chapter 3 of the California Coastal Act of 1976, 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 of the Coastal Act, is located between the sea and first public road nearest the shoreline and is in conformance with the public access and public recreation policies of Chapter 3 of the Coastal Act, and will not have any significant adverse effects on the environment within the meaning of the California Environmental Quality Act.

II. **Standard Conditions**

1. **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. **Compliance.** All development must occur in strict compliance with the proposal as set forth below. Any deviation from the approved plans must be reviewed and approved by the staff and may require Commission approval.
4. **Interpretation.** Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.

5. Inspections. The Commission staff shall be allowed to inspect the site and the development during construction, subject to 24-hour advance notice.
6. 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.
7. 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. Revised Plans for Removal of Seaward Encroachment of Seawall Underpinning and Provisional Term for Shoreline Protective Structure: Deed Restriction
 - A. Prior to issuance of coastal development permit, the applicant shall submit for the review and approval of the Executive Director, revised project plans removing the portion of the 'unpermitted' concrete underpinning that encroaches seaward of the existing vertical concrete bulkhead. The revised plans shall be prepared and signed by a licensed engineer(s) with expertise in designing shoreline protective devices. The revised plans shall identify the entire length of the existing vertical bulkhead, the underpinning and the removal of the seaward encroachment of the underpinning located beneath the existing footing of the bulkhead. The revised plans shall indicate that the applicant or successors in interest shall complete the removal by the end of the winter season of the year 2002, or no later than March 31, 2002. The intent of this time frame is to allow the applicant or successors in interest two winter seasons when the beach may be naturally scoured to a cobble beach or thin sandy beach to complete the removal of the seaward portion of the underpinning.
 - B. The applicant or successors in interest shall complete the required removal of the seaward portion of the underpinning no later than March 31, 2002. The applicant or successors in interest shall also submit documentation for the review and approval of the Executive Director including photographs and 'as built' plans signed by a licensed engineer within 30 days of the completion of the removal or by April 30, 2002, whichever is sooner, indicating that the entire seaward portion of the underpinning is removed as measured from the seaward end of the supporting base of the existing vertical concrete seawall.
 - C. 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, reflecting the above

requirements and restrictions on development of the subject parcel. The deed restriction shall include both a legal description of the applicant's entire parcel, and an Exhibit drawn to scale depicting the existing shoreline protective development as of September 24, 1999. The drawing shall identify the portion of the underpinning which shall be removed on the revised plans. 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 an amendment to this coastal development permit approved by the Coastal Commission. This deed restriction may be removed at the request of the applicant or successor in interest after verification by the Executive Director that the revised plans noted above have been fully implemented.

2. Assumption of Risk, Waiver of Liability and Indemnity Agreement.

- A. By acceptance of this permit, the applicant acknowledges and agrees (i) that the site may be subject to hazards from liquefaction, storm waves, erosion or flooding (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 ANY CONVEYANCE OF THE PROPERTY THAT IS THE SUBJECT OF THIS 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 subsection (a) 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.
- C. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit a written agreement, in a form and content acceptable to the Executive Director, incorporating all of the above terms of this condition.

3. Plans Conforming to Geology and Engineering Report Recommendations

All recommendations contained in the Update Engineering Geologic Report and Engineering Geologic Memorandum, by Mountain Geology, dated March 24, 1998 and June 7, 1998, respectively shall be incorporated into all final design and construction plans, including all recommendations concerning temporary excavations, drainage, plan review, and site observation

Prior to issuance of the coastal development permit, the applicant shall submit evidence to the Executive Director of the consultant's review and approval of all final design and construction plans. The final plans approved by the consultant shall be in substantial conformance with the revised plans described above in Special Condition Number One (1) approved by the Commission relative to construction, grading and drainage. Any substantial changes in the proposed development approved by the Commission which may be required by the consultant shall require an amendment to the permit or a new coastal permit.

4. Construction Responsibilities and Debris Removal

The applicant shall, by accepting this permit, agree and ensure that the project contractor: a) not stockpile dirt on the beach; b) properly cover and sand-bag all stockpiling beyond the beach to prevent runoff and siltation; c) not store any construction materials or waste where it may be subject to wave erosion and dispersion; d) promptly remove any and all debris from the beach that results from construction or demolition materials to an appropriate disposal site; e) implement measures to control erosion at the end of each day's work; and f) not allow any mechanized equipment in the intertidal zone at any time.

5. Seawall Installation; Future Limitations

- A. The applicant agrees, on behalf of itself and all successors and assigns, that no future repair or maintenance, enhancement, reinforcement, or any other activity affecting the shoreline protective device approved pursuant to this permit shall be undertaken if such activity extends the seaward footprint of the subject shoreline protective device. By acceptance of this permit the applicant waives, on behalf of itself and all successors and assigns, any rights to such activity that may exist under Public Resources Code Section 30235.
- B. Prior to the issuance of Coastal Development Permit 4-98-214, the applicant as landowner shall execute and record a deed restriction, in a form and content acceptable to the Executive Director, which reflects the above restrictions on development of the subject parcel. The deed restriction shall include a legal description of the applicant's entire parcel and the following exhibits, including both full-sized and 8-1/2 by 11-inch

reductions, prepared for the review and approval of the Executive Director: (a) a site plan mapping to scale the applicant's parcel in accordance with the legal description, including the existing development and approved development pursuant to this permit (identify the underpinning to be removed as required by Special Condition one (1)) and (b) a cross section view lengthwise of item (a). Both Exhibits shall identify and map the exact distance between the seaward most component of the shoreline protective device and a fixed, baseline monument or landmark landward of the subject device found acceptable by the Executive Director. 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 Coastal Commission approved amendment to this coastal development permit.

6. New Offer to Dedicate Lateral Public Access Easement

In order to implement the applicant's proposal of a new 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, that supercedes and replaces the Irrevocable Offer to Dedicate Public Access Easement recorded on November 27, 1986, as instrument no. 86-1638442 in the County of Los Angeles, 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 mean high tide line landward to the face of the seawall/bulkhead as illustrated on the revised site plan prepared pursuant to Special Condition 1 above, and approved by the Executive Director.

The document shall contain the following language:

Privacy Buffer

The area ten (10) feet seaward from the face of the seawall/bulkhead as illustrated on the revised final project plans prepared pursuant to Special Condition 1 shall be identified as a privacy buffer. The privacy buffer shall be applicable only if and when it is located landward of the mean high tide line and shall be restricted to pass and repass only, and shall be available only when no other dry beach areas are available for lateral public access. The privacy buffer

does not affect public access should the mean high tide line move within the buffer area.

Passive Recreational Use

The remaining area shall be available for passive recreational use.

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 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. Sign Restrictions

No signs shall be posted on the property subject to this permit (and/or on immediately adjacent properties) which (a) explicitly or implicitly indicate that the portion of the beach on Assessor's Parcel Number (APN 4452-007-017) located seaward of the seawall/bulkhead underpinning approved by Coastal Development Permit 4-98-214 is private or (b) contain similar messages that attempt to prohibit public use of this portion of the beach. In no instance shall signs be posted which read "*Private Beach*" or "*Private Property*." To effectuate the above prohibitions, the permittee is required to submit to the Executive Director for review and approval prior to posting the content of any proposed signs.

8. Condition Compliance

Within ninety (90) days of Commission action on this CDP application, or within such additional time as the Executive Director may grant for good cause, the applicant shall satisfy all requirements specified in the conditions hereto that the applicant is required to satisfy prior to issuance of this permit. Failure to comply with this requirement may result in the institution of enforcement action under the provisions of Chapter 9 of the Coastal Act.

IV. Findings and Declarations.

A. Project Description, Location, and Background

The project site is located at 23910 Malibu Road, Malibu on a 34,455 sq. ft. lot along Amarillo Beach seaward of Malibu Road. (*Exhibits 1 and 2*) The applicant

proposes to construct a 1,322 sq. ft. two story garage and second floor studio addition to one wing, second floor closet and deck addition second wing, and minor interior remodeling to existing single family residence, a new access stairway to the existing basement, relocate existing septic tank, and an 'unpermitted' concrete underpinning of existing seawall/bulkhead. The underpinning is located beneath the concrete base along the entire eighty two (82) foot length of the existing vertical concrete seawall/bulkhead. The underpinning extends approximately two and one-half (2 1/2) to three and three-quarters (3 3/4) feet seaward of the existing toe of the wall. The addition to the residence is proposed to be located on the landward side of the residence (*Exhibits 1 - 9*). The applicant also proposes to offer to dedicate a new lateral public access easement from the mean high tide line to the face of the vertical bulkhead including a ten foot privacy buffer. This offer to dedicate will supercede and replace an existing offer to dedicate.

The subject lot includes an existing residence, basement and garage of about 7,713 sq. ft. with vertical concrete bulkhead and below grade rip-rap erosion barrier. In 1985, the Commission approved a coastal permit (No. 5-85-512) for a 1,500 sq. ft. addition to the first and second floors of an existing residential structure, a new teahouse, swimming pool, septic system, and a re-enforcement of an existing rip-rap erosion buffer below beach grade to the existing residence. The Commission approved this project, which essentially demolished the former structure to construct a new residence, with special conditions requiring an offer to dedicate lateral public access (*Exhibit 10*) and applicant's assumption of risk. In 1986, the Commission approved Permit Amendment No. 5-85-512-A-1 to change the architectural design, add 400 sq. ft., change the pool location, and reduce the size of the tea house. Shortly thereafter in 1987, the Commission approved a second Coastal Permit Amendment (No. 5-85-512-A-2) to replace the existing sub-grade reinforced rock seawall with a vertical concrete bulkhead with a sub-grade rock erosion/wave protection barrier consistent with the stringline with adjacent and nearby seawalls/bulkheads (*Exhibit 11*).

The applicant submitted, on April 6, 1998, an application requesting an emergency coastal permit for the concrete underpinning to the vertical seawall. The Executive Director determined, in a letter dated April 30, 1998, that an emergency coastal permit was not appropriate since the project was completed between March 10 - 16, 1998. Staff requested that a regular application for a coastal permit be submitted for the 'unpermitted' repair work. The applicant submitted an application for the residential additions on August 3, 1998. Staff requested in a letter dated September 2, 1998 that the 'unpermitted' repair work be added to the project description in the pending application. On September 22, 1998 the applicant submitted addition information including amending the project description to include the repair work consisting of the underpinning.

Vertical public access to Armarillo Beach is located within about 400 ft. west of the subject site between 24314 and 24320 Malibu Road. This public accessway

has been operated and maintained by Los Angeles County since the late 1960's. To the northeast of the subject site along Malibu Road are commercial developments. The subject property includes a 1986 recorded Offer to Dedicate Lateral Public Access extending along the entire width of the property from the Mean High Tide line to the dripline of the deck, including a ten foot wide privacy buffer (*Exhibit 10*). A review of the Offer to Dedicate Lateral Public Access area and the site plan indicates that the existing approved vertical bulkhead is located within this easement (*Exhibit 11*). This issue is discussed further below.

The Los Angeles County Malibu Land Use Plan has designated the site as Residential III B, which allows 4 - 6 dwelling units per acre. The existing parcel size with about 34,455 sq. ft. is, therefore, considered conforming regarding parcel size according to the Land Use Plan.

B. Shoreline Protective Devices

The applicant proposed to construct an 'unpermitted' concrete underpinning of an existing bulkhead. Additional components of the proposed project include constructing a 1,322 sq. ft. two story garage & studio addition to an existing single family residence, an new access stairway to the existing basement, and a new septic tank. These additional residential components are located on the landward portion of the existing residence.

The project site is located on Amarillo Beach, a section of coastline characterized by a roadway and private residential development on a low bluff along a wide sandy beach.

After identifying the applicable Coastal Act sections and the Los Angeles County Land Use Plan (LUP) policies, the discussion of whether or not the proposed repair of the shoreline protective device (concrete vertical bulkhead) is necessary will proceed in the following manner. First, the staff report describes the physical characteristics of the Amarillo Beach shoreline. Second, the staff report analyzes the dynamics of the Amarillo Beach shoreline. Third, the staff report analyzes the location of the proposed repair (underpinning) of the concrete bulkhead in relation to wave action. Finally, the staff report analyzes whether a shoreline protective device¹ is needed.

As described in the discussion below, there is evidence that most developments along this section of Amarillo Beach may require a shoreline protective device that has the potential to impact the natural shoreline processes. Therefore, it is necessary to review the proposed project for its consistency with Sections 30235, 30250(a), and 30253 of the Coastal Act.

Section 30235 of the Coastal Act states:

¹ Shoreline Protective Device is also referred to in the findings as a bulkhead or seawall.

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 30250(a) of the Coastal Act states (in part):

New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources.

Section 30253 of the Coastal Act states (in part):

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.***

Coastal Act Section 30235 provides for two tests applicable to this project. The first test is whether or not the shoreline protective device is needed to protect either coastal dependent uses, existing structures, or public beaches in danger of erosion; the second test is whether or not the device is designed to eliminate or mitigate adverse impacts on shoreline sand supply.

Regarding Section 30250, the Coastal Act requires that new development be located in existing developed areas able to accommodate it, or other areas where it will not have significant adverse effects on coastal resources.

Section 30253 of the Coastal Act mandates that new development provide for geologic stability and integrity and minimize risks to life and property in areas of high geologic, flood, and fire hazard.

In addition, to assist in the determination of whether a project is consistent with Sections 30235, 30250(a), and 30253 of the Coastal Act, the Commission has, in past Malibu coastal development permit actions, looked to the certified Malibu/Santa Monica Mountains Land Use Plan (LUP) for guidance. The Malibu LUP has been found to be consistent with the Coastal Act and provides specific standards for development along the Malibu coast. For example, policies P166 and P167 provide, together with Coastal Act Section 30235, that revetments, seawalls, cliff retaining walls and other shoreline protective devices be permitted only when required to serve coastal-dependent uses, to protect existing structures or new structures which constitute infill development and only when such structures are designed and engineered to eliminate or mitigate significant adverse impacts on the shoreline and sand supply.

The subject property is developed with a residence, garage, tea house, pool, septic system and an existing concrete vertical bulkhead protecting the development seaward of Malibu Road. The project includes the construction of an 'unpermitted' underpinning of the existing concrete bulkhead. The proposed underpinning will protect existing residential structures on the subject property including the proposed addition to the same residence (*Exhibit 9*).

The project does not fall into two of the three categories in which a shoreline protective device must be permitted by the Commission under Section 30235. The proposed repair of the bulkhead does not protect a public beach nor would it serve a coastal-dependent use. Residential structures and garages are not coastal dependent developments or uses pursuant to Section 30101 of the Coastal Act. However, the proposed repair of the concrete vertical bulkhead does protect an existing residential structure in danger from erosion, therefore a shoreline protective device may be permitted. Therefore, the Commission finds that the proposed project meets the first test of Section 30235. The second test of Section 30235 will be discussed below.

Regarding Section 30250, the new development proposed in this project consists of the addition of 1,322 sq. ft. to the existing residence. The construction of the underpinning of the vertical concrete bulkhead is not considered new development. Because an existing residence already exists on site with adequate public services, (i.e. public road access, water, electricity, and telephone) and surrounding properties are already developed with residential development, the Commission finds that the new development proposed in this application will be located within an existing developed area able to accommodate it. Thus, the Commission finds that the proposed project meets Section 30250 of the Coastal Act.

Regarding Section 30253, the proposed development is located within an area of high geologic and flood hazard due to waves, storm waves, flooding, and erosion. This section of the Coastal Act mandates that new development provide for geologic stability and integrity and minimize risks to life and property in areas of high geologic, flood and fire hazard. The location of the proposed bulkhead underpinning is located within the ocean wave scour area, as determined by the applicant's engineer. These issues are further discussed below.

1. Proposed Project and Site Shoreline

The City of Malibu includes a 27 mile long narrow strip of coast that is backed by the steep Santa Monica Mountains. Unlike most of the California coast, the shoreline in Malibu runs from east to west and forms south-facing beaches. Amarillo Beach is located seaward of the intersection of Pacific Coast Highway and Malibu Canyon Road. Amarillo Beach is developed with single family residences. The majority of the residences on the eastern portion of Amarillo Beach are constructed on the sandy beach with seawall or bulkhead walls protecting the residences.

Amarillo Beach is located within the Dume Littoral Subcell, which geographically extends from approximately Point Dume to Redondo Beach. The Dume Subcell is part of the larger Santa Monica Littoral Cell. The fluvial sediment from Malibu Creek and Topanga Canyon Creek is the major contributing sediment source in this Subcell. Given that Amarillo Beach is upcoast from Malibu Creek and Topanga Canyon Creek, sediment to this beach is predominately derived from the upcoast Zuma Littoral Subcell, in which approximately 90% of the sediment continues downcoast bypassing the Dume Canyon Submarine Canyon. In contrast to the Dume Littoral Subcell, where the major sediment source is the large streams referenced above, 60% of the sediment from Zuma Cell's net total sediment is derived from beach/bluff erosion and only 40% is derived from the local streams.²

The main sources of sediment for bluff backed beaches are the bluffs themselves, as well as the material that has eroded from inland sources and is carried to the beach by small coastal streams. While beaches seaward of coastal bluffs follow similar seasonal and semiannual changes as other sandy beaches, they differ from a wide beach in that a narrow, bluff backed beach does not have enough material to maintain a dry sandy beach area during periods of high wave energy. Thus, unlike a wide sandy beach, a narrow, bluff backed beach may be scoured down during the winter months. In the case of Amarillo Beach, a road was constructed at the base of the bluff in the 1920's and has altered the natural process of shoreline nourishment in which beaches such as

² Army Corps of Engineers, Los Angeles District, Reconnaissance Study of the Malibu Coast. 1994.

Amarillo would expose the back of the bluff to frequent wave attack as the beach erodes. In a natural setting, this wave attack leads to eventual erosion and retreat of the lower portions of the bluff. The dynamic of bluff erosion and retreat results in landward movement of the beach's location and, in turn, eroded bluff material provides beach nourishment material to establish a new beach area. In the case of Amarillo Beach, the back of the beach has been fixed in part by Malibu Road and in part by shoreline protective devices that have been constructed on the sandy beach to protect single family residences.

2. Amarillo Beach is an Eroding Beach

This portion of Amarillo Beach is a sandy beach backed by bulkheads or seawalls and rock revetments protecting residences. Determining the overall beach erosion pattern is one of the key factors in determining the impact of the bulkhead on the shoreline. In general, beaches fit into one of three categories: 1) eroding; 2) equilibrium; or 3) accreting. The persistent analytical problem in dealing with shore processes in California is distinguishing long-term trends in shoreline change from the normal, seasonal variation.

Two studies regarding long-term trends in shoreline processes were reviewed. First, a U. S. Army Corps of Engineers 1994 Reconnaissance Report regarding the Malibu/Los Angeles County coastline concludes that Puerco Beach to Amarillo Beach is a narrow beach backed, by a high bluff and frontage road. The Army Corps forecasts long term retreat averaging less than one (1) foot per year for Amarillo Beach. However, this section of Amarillo Beach is a sandy beach with a low bluff.² Second, a report prepared for the City of Malibu by Moffatt and Nichol, Engineers dated June 30, 1992 was reviewed. This report confirms the Army Corps of Engineers review by concluding that this specific section of Amarillo Beach is retreating over the 1938 - 1988 time period; the estimated rate of erosion is between 1.0 and 1.5 feet per year. The Moffatt and Nichol report also indicates that the mean beach width (1960 - 1988) was about 75 feet wide.

The applicant has prepared a Coastal Engineering Report with three additional reports that discuss the proposed project relative to wave uprush and the shoreline processes: Coastal Engineering Report by David Weiss, Structural Engineer & Associates, dated January 1, 1999. The additional reports are: Report on Observation of Construction of Underpinning of Existing Concrete Bulkhead Wall, David Weiss Structural Engineer & Associates, dated April 1, 1998; Response to Coastal Commission Request for Additional Information, David Weiss Structural Engineer & Associates, dated March 26, 1999; Response to Coastal Commission Request for Additional Information Regarding Feasibility of Relocating That Portion of the Existing Concrete Bulkhead Wall Underpinning Located Seaward of the Toe of the Existing Wall, David Weiss Structural Engineer & Associates, dated June 25, 1999; and Underpinning of Existing Concrete Bulkhead Wall, David Weiss Structural Engineer & Associates, dated July 2, 1999

David Weiss, Structural Engineer & Associates, identified the design beach profile, wave uprush calculations, design waves, analyzed possible storm wave damage to existing and proposed structures, and provided coastal engineering recommendations for the design of the underpinning, and also designed the underpinning for the concrete vertical bulkhead on the subject site located along Amarillo Beach. This report discusses the above noted Army Corps of Engineers and Moffatt and Nichol reports addressing erosion. David Weiss does conclude that this section of beach is at least in equilibrium based on his observations and suggests that the beach is an oscillating beach. However, no site specific evidence is provided to justify these opinions regarding shoreline advancement or retreat along Amarillo Beach.

The Weiss report identifies the historical mean high tide line locations (1961 and 1966) on the subject site as about 305 and 355 feet, respectively, seaward from the landward property line along Malibu Road. The seaward extent of the subject concrete bulkhead is about between 150 and 160 feet seaward from the landward property line along Malibu Road. Therefore, the bulkhead is at least 145 feet landward from the 1961 mean high tide line, which is the most landward mean high tide line.

Staff reviewed the proposed project against the above cited shoreline data. The data presented indicates that this section of Amarillo Beach is an eroding beach. The applicant's consultant has provided no significant analysis to the contrary. The studies performed by the U. S. Army Corp of Engineers, indicate that Amarillo Beach is an eroding beach. More specifically, the Moffatt & Nichol Report confirms the information in the U. S. Army Corps report by identifying in detail this subject beach location as eroding between about 1.0 and 1.5 feet per year. In addition, the Moffatt & Nichol Report identifies this subject beach with a mean beach width (1960 - 1988) of about 75 feet wide. Therefore, the Commission finds that Amarillo Beach is an eroding beach.

3. 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 upon coastal processes, shoreline sand supply, and public views, the Commission has, in past permit actions, developed the "stringline" analytical method of evaluating the potential effects of shoreline development. 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 the stringline analysis to numerous past permits involving infill development on sandy beaches and has found the method to be an effective tool in identifying and preventing further encroachments onto sandy beaches.

In this case, the proposed 'unpermitted' underpinning of the existing vertical concrete bulkhead exceeds the applicable stringline setbacks of adjoining seawalls/bulkheads and would result in seaward encroachment of development on Amarillo Beach. In addition, the proposed addition to this residence is located on the landward side of the existing residence well beyond the stringline of the residence. Staff notes that the applicant's consultant has identified a potential project revision that would redesign and relocate these structures sufficiently to achieve the necessary alignment with the stringline. Special Condition Number One (1) sets forth these requirements to bring the project to a location within the stringline. This condition requires revised project plans identifying the removal of the seaward encroachment of the 'unpermitted' concrete underpinning located beneath the existing vertical concrete wall and footing. The revised plans must be prepared and signed by a licensed engineer(s) with expertise in designing shoreline protective devices and will identify the entire length of the existing vertical bulkhead, the underpinning and the removal of the seaward encroachment of the underpinning located beneath the existing footing of the bulkhead.

The revised plans will indicate that the applicant or successors in interest will complete the removal by the end of the winter season of the year 2002, or no later than March 31, 2002. The intent of this time frame is to allow the applicant or successors in interest a maximum of two winter seasons when the beach is usually naturally scoured to a cobble beach or thin sand beach to complete the removal of the seaward encroachment of the underpinning. During other seasons, the underpinning is covered by sand and removal would be difficult. Due to the depth of the underpinning, usually as deep as ten feet or more below sand level, the applicant has asked to have the option to remove the underpinning during the winter beach erosional period. A period of two winter seasons was requested. Due to delays in obtaining all necessary permits, the applicant has asked that two winter seasons be available for the removal of the underpinning, the applicant's choice of one season which would be proposed for the complete removal of the seaward encroachment. These two winter seasons would be the winter of 2000 - 2001 and 2001 - 2002.

The applicant or successors in interest shall agree that this required removal of the seaward portion of the underpinning will be completed no later than March 31, 2002. The applicant or successors in interest shall also agree to submit documentation including photographs and 'as built' plans signed by a licensed engineer within 30 days of the completion of the removal or by April 30, 2002, whichever is sooner, indicating that the entire seaward portion of the underpinning is removed as measured from the seaward end of the supporting base of the existing vertical concrete bulkhead. If all of the above is completed, as required by Special Condition Number one (1) this portion of the proposed project will be consistent with the stringline analytical standards set by the Commission over years of reviewing infill beach development in Malibu.

4. Effects of the Shoreline Protective Device on the Beach

The proposed concrete underpinning of the existing vertical concrete bulkhead is located seaward of an existing residence about 45 to 55 feet and about 153 to 162 feet seaward of the Malibu Road right-of-way (Exhibits 9 and 11). An engineered seawall is typically built along straight sand beaches or low coastal bluffs where fill can be placed landward of the seawall to support roadways, sewage disposal systems, and patios that are constructed on fill land. In this case, the vertical bulkhead supports fill land where a patio, decks, planters and a residence are located. Therefore, the bulkhead structure functions as both a retaining structure and as protection from wave attack and wave runup.

The proposed project involves a shoreline structure that, as a result of wave interaction, has the potential to affect the configuration of the shoreline and the beach profile and may have an adverse impact on the shoreline. Even though the precise impact of a shoreline structure on the beach is a persistent subject of debate within the discipline of coastal engineering, particularly between coastal engineers and marine geologists, it is generally agreed that a shoreline protective device will affect the configuration of the shoreline and beach profile whether it is a vertical bulkhead or a rock revetment. The main difference between a vertical seawall and rock revetment is their physical encroachment onto the beach. However, it has been well documented by coastal engineers and coastal geologists that shoreline protective devices or shoreline structures in the form of either a rock revetment or vertical bulkhead will adversely impact the shoreline as a result of beach scour (the beach areas at the end of the seawall), retain potential beach material behind the wall, fix the back beach, and interrupt longshore processes. In order to evaluate these potential impacts relative to the proposed structure and its location on Amarillo Beach, each of the identified effects will be evaluated below.

a. Encroachment on the Beach

Shoreline protective devices, such as seawalls, bulkheads, revetments, groins, etc., all are physical structures which occupy space. When a shoreline protective device is placed on a beach area, the underlying beach area cannot be used for other beach purposes, such as recreation. If the underlying beach area is public beach, the public will not be able to use the beach area in the way it had prior to the placement of the device. This area will be altered from the time the protective device is constructed and the extent or area occupied by the device will remain the same over time, until the device is removed or is moved from its initial location.

The applicant proposes to construct an 'as built' and 'unpermitted' underpinning to a shoreline protective device that does encroach further seaward than the existing vertical bulkhead damaged by storm waves sometime between February

18, and March 2, 1998. The underpinning encroaches between two and a half (2 ½) to three and three quarters (3 ¾) feet seaward of the seaward toe of the base of the vertical bulkhead located along an approximate eighty-two (82) foot long seaward boundary. As a result, the actual physical displacement of sandy beach that is available for public recreation or access during beach scour periods is about 250 square feet in this case. As discussed below, the potential adverse effects to the beach profile resulting from scour effects of the bulkhead may affect public access and recreation on the beach.

b. Beach Scour

Scour is the removal of beach material from the base of a cliff, seawall or revetment due to wave action. The scouring of beaches caused by shoreline protective devices is a frequently observed occurrence. When waves impact on a hard surface such as a coastal bluff, rock revetment or vertical bulkhead, some of the energy from the wave will be absorbed, but much of it will be reflected back seaward. This reflected wave energy in combination with the incoming wave energy, will disturb the material at the base of the bulkhead and cause erosion to occur in front and down coast of the hard structure. This phenomenon has been recognized for many years and the literature acknowledges that seawalls have some effect on the supply of sand. The following quotation summarizes a generally accepted opinion within the discipline of coastal engineering that:

Seawalls usually cause accelerated erosion of the beaches fronting them and an increase in the transport rate of sand along them.³

Ninety-four experts in the field of coastal geology, who view beach processes from the perspective of geologic time, signed the following succinct statement of the adverse effects of seawalls:

These structures are fixed in space and represent considerable effort and expense to construct and maintain. They are designed for as long a life as possible and hence are not easily moved or replaced. They become permanent fixtures in our coastal scenery but their performance is poor in protecting community and municipalities from beach retreat and destruction. Even more damaging is the fact that these shoreline defense structures frequently enhance erosion by reducing beach width, steepening offshore gradients, and increasing wave heights. As a result, they seriously degrade the environment and eventually help to destroy the areas they were designed to protect.⁴

³ Saving the American Beach: A Position Paper by Concerned Coastal Geologists (March 1981, Skidaway Institute of Oceanography), pg. 4.

The above 1981 statement signed by 94 respected coastal geologists indicates that sandy beach areas available for public use can be harmed through the introduction of seawalls. Thus, in evaluating an individual project, the Commission assumes that the principles reflected in that statement are applicable. To do otherwise would be inconsistent with the Commission's responsibilities under the Coastal Act to protect the public's interest in shoreline resources. Specifically, to protect the public's access along the ocean and to the water, as discussed in more detail in the subsequent Section IV. D. titled; Public Access.

The impact of seawalls as they are related to sand removal on sandy beaches is further documented by the State Department of Boating and Waterways:

While seawalls may protect the upland, they do not hold or protect the beach which is the greatest asset of shoreline property. In some cases, the seawall may be detrimental to the beach in that the downward forces of water, created by the waves striking the wall rapidly remove sand from the beach. ⁴

Finally this observation was underscored more recently in 1987 by Robert G. Dean in "Coastal Sediment Processes: Toward Engineering Solutions."

Armoring can cause localized additional storm scour, both in front of and at the ends of the armoring Under normal wave and tide conditions, armoring can contribute to the downdrift deficit of sediment through decreasing the supply on an eroding coast and interruption of supply if the armoring projects into the active littoral zone. ⁵

Dr. Craig Everts found that on narrow beaches where the shoreline is not armored, the most important element of sustaining the beach width over a long period of time is the retreat of the backbeach and the beach itself. He concludes that:

Seawalls inhibit erosion that naturally occurs and sustains the beach. The two important aspects of beach behavior are changes in width and changes in the position of the beach. On narrow, natural beaches, the retreat of the back beach, and hence the beach itself, is the most important element in sustaining the width of the beach over a long time period. Narrow beaches, typical of most of the California coast, do not provide enough sacrificial sand during storms to provide protection

⁴ State Department of Boating and Waterways (formerly called Navigation and Ocean Development) Shore Protection in California (1976), page 30.

⁵ "Coastal Sediment Processes: toward Engineering Solutions", Coastal Sediments '87, Robert G. Dean.

against scour caused by breaking waves at the back beach line. This is the reason the back boundary of our beaches retreats during storms.⁶

Dr. Everts further concludes that armoring in the form of a seawall interrupts the natural process of beach retreat during a storm event and that:

A beach with a fixed landward boundary is not maintained on a recessional coast because the beach can no longer retreat.

The Commission has observed this phenomenon up and down California's coast, where a seawall has successfully halted the retreat of the shoreline, but only at the cost of usurping the beach. For example, at La Conchita Beach in Ventura County, placement of a rock revetment to protect an existing roadway has caused narrowing of the existing beach. Likewise, at City of Encinitas beaches in San Diego County, construction of vertical seawalls along the base of the bluffs to protect existing residential development above, has resulted in preventing the bluff's contribution of sand to the beaches, resulting in narrowing of the beach. Although this may occur slowly, the Commission concludes that it is the inevitable effect of constructing a seawall on an eroding shoreline. In such areas, even as erosion proceeds, a beach would be present in the absence of a seawall.

As set forth in the above discussion, Amarillo Beach is a narrow eroding beach with a mean beach width of about 75 feet during the period of time from 1960 to 1988. The applicant's coastal engineering consultant has indicated that the bulkhead and proposed underpinning will be acted upon by waves during storm conditions. The applicant's consultant, David Weiss and Associates, has stated that wave uprush will extend up to 112 feet of the Malibu Road right-of-way line and about 30 to 40 feet landward of the location of the existing bulkhead, if the property were not protected with a bulkhead. This estimate of wave runup does not take into account worst case severe storm events. The Coastal Engineering Report by David Weiss dated January 1, 1999 indicates that there is some potential for additional wave scour:

There may be some potential for a little additional scour at the base of the wall due to "reflected" wave forces. Maybe a better way to describe the phenomenon is a depression in front of the wall due to reflected wave forces. When a wave hits a vertical surface, some of the water is reflected up, some down. It is the downward deflection that causes the "depression". There is not additional sand scoured off of the beach. The sand that is scoured off the beach is still deposited just seaward of the site to form a sand bar to protect the backshore beach from the storm wave

⁶ Letter Report dated March 14, 1994 to Coastal Commission staff engineer Lesley Ewing from Dr. Craig Everts, Moffatt and Nichol Engineers

action. This depression is not permanent and is accounted for in the specification of the depth of the sheathing/structure.

Therefore, based on the report prepared by the Army Corp of Engineers, and confirmed in the 1994 Moffatt & Nichol Malibu study, and the analysis of David Weiss and Associates, the Commission finds that over time, the bulkhead would be acted upon more frequently during winter months. As a result, the Commission notes that the proposed bulkhead, over time, will result in potential adverse effects to the beach sand supply resulting in increased seasonal erosion of the beach and longer recovery periods.

The impacts of potential beach scour is important relative to beach use for two reasons. The first reason involves public access. As explained in the subsequent section relating to public access, Amarillo Beach has historically been used by the public. The subject property is located within about 400 feet from an existing vertical public accessway to the west that has been maintained and operated by Los Angeles County. If the beach scours at the base of the bulkhead, even minimal scouring in front of the 82 foot long wall will translate into a loss of beach sand available (i. e. erosion) at a more accelerated rate than would otherwise occur under a normal winter season if the beach were unaltered. The second impact relates to the potential turbulent ocean condition. Scour at the face of the bulkhead will result in greater interaction with the wall, and thus, make the ocean along Amarillo Beach more turbulent than it would along an unarmored beach area. Therefore, the Commission finds that the proposed underpinning of the bulkhead together with the existing bulkhead will cause greater erosion than under natural conditions and less rapid beach recovery through accretion.

As such, the Commission has ordinarily required that all development on a beach, including shoreline protection devices, be located as landward as possible in order to reduce adverse impacts from scour and erosion. In the case of this project, the Commission notes that the proposed underpinning of the vertical bulkhead, as conditioned, is as far landward as feasible. The proposed underpinning of the bulkhead will be located directly beneath the base of the existing bulkhead, and as required by Special Condition Number One, the seaward encroachment will be removed. Because the proposed underpinning is located directly beneath, and as conditioned no further seaward than the base, the Commission finds that no new adverse impacts on the beach will be created as a result. Therefore, the Commission finds, as conditioned, that the project will minimize the adverse impacts resulting from construction of the underpinning of the bulkhead and is consistent with the applicable Coastal Act sections and with past Commission action.

c. End Effects

End effects involve the changes to the beach profile adjacent to the bulkhead or seawall at either end. One of the more common end effects comes from the reflection of waves off the bulkhead in such a way that they add to the wave energy that is impacting the unprotected coastal areas on either end. Coastal engineers have compared the end effects impacts between revetments and bulkheads. In the case of a revetment, wave energy reflected back and to the ends that can cause erosion at the upcoast and downcoast ends of the revetment. In the case of a vertical bulkhead, return walls are typically constructed, and, thus, wave energy is also directed to the return walls causing end erosion effects.

With respect to the subject site, the adjacent properties upcoast to the west and downcoast two lots to the east are developed with residences and have similar concrete bulkheads which also protects their respective residences. The adjoining residence to the east is a smaller residence without an apparent seawall or bulkhead. These bulkheads are located in the same alignment as this subject bulkhead. The submitted plans indicate that the proposed concrete underpinning will be located, as conditioned, to conform to and connect to the existing bulkheads on the adjoining property to the west and to the east the property one lot away from the subject lot. The applicant's consultant, David Weiss a registered coastal engineer, has prepared, stamped, and signed the submitted plans.

The applicant's consultant, David Weiss and Associates, submitted information regarding the potential end effects of the proposed bulkhead. The Coastal Engineering Report, dated January 1, 1999 states:

It is my opinion that the underpinning will have no adverse effects on adjacent properties. This is an existing bulkhead that is just one bulkhead structure in a line of over 1 mile of bulkheads from a few lots just outside of the west end of the Malibu Colony to the east end of Malibu Colony.

The Commission notes that end effect erosion may be minimized by locating a proposed shoreline protection device as landward as possible in order to reduce the frequency that the seawall is subject to wave action. In the case of this project, the Commission further notes that the proposed underpinning, as conditioned, will be located as landward as feasible directly beneath the base of the vertical bulkhead and still be able to align with the existing bulkheads located on adjoining properties to the west and two lots to the east. The alignment of the proposed underpinning with the existing bulkheads to the west and east will also serve to minimize end effect erosion between the bulkhead and adjoining properties. As such, the proposed underpinning of the bulkhead is designed to minimize erosional end effects along both the western and eastern ends of the wall. Therefore, the proposed project, as conditioned, is consistent with the applicable Coastal Act sections and with past Commission action.

d. Retention of Potential Beach Material

A shoreline protective device's retention of potential beach material inherently impacts shoreline processes. One of the main functions of a bulkhead or revetment is upland stabilization; to keep the upland sediments from being carried to the beach by wave action and bluff retreat. In the case of Amarillo Beach, which is located in the Santa Monica Littoral Cell, the back of the beach is fixed along bulkheads located seaward of residences and Malibu Road. When the beach in front of the structure disappears over time, the natural shoreward migration of the beach is blocked by the structure. The National Academy of Sciences found that retention of material behind a shoreline protective device may be linked to increased loss of material in front of the wall. The net effect is documented in "Responding to Changes in Sea Level, Engineering Implications" which provides:

A common result of sea wall and bulkhead placement along the open coastline is the loss of beach fronting the structure. This phenomenon, however, is not well understood. It appears that during a storm the volume of sand eroded at the base of a seawall is nearly equivalent to the volume of upland erosion prevented by the sea wall. Thus, the offshore profile has a certain "demand" for sand and this is "satisfied" by erosion of the upland on a natural beach or as close as possible to the natural area of erosion on an armored shoreline ...⁷

As explained, the bulkhead will protect a residence, garage, pool, and deck, from continued loss of sediment. However, the result of this protection, particularly on an eroding beach, is loss of sediment on the sandy beach area that fronts the bulkhead. Furthermore, as explained previously, this loss of sediment from the active beach leads to a lower beach profile, seaward of the protective device, where the seawall will have greater exposure to wave attack.

As such, the Commission has ordinarily required that all new development on a beach, including shoreline protection devices, which may have adverse impacts on the beach sand supply to offer public lateral access easements in order to reduce any adverse impacts to public access. In past permit actions, the Commission has also required that all new development on a beach, including shoreline protection devices, provide for public lateral access along the beach in order to reduce any adverse impacts to public access. However, the applicant's proposed underpinning of an existing bulkhead will be located no further seaward than the existing bulkhead, as conditioned. As such the proposed project does not create any new adverse effects on public access along the beach. However, the Commission has approved Coastal Permit Amendment No. 5-85-214-A-2 which allowed the now existing bulkhead and an extension of

⁷ National Academy of Sciences, Responding to Changes in Sea Level: Engineering Implications National Academy Press, Washington D.C., 1987, page 74.

decks to be located within a recorded lateral access easement. A revision to the easement area is therefore needed. This issue is further discussed further in the section titled IV. D. Public Access, below. Therefore, as conditioned, the project will minimize the adverse effects resulting from construction of the underpinning of the bulkhead and is consistent with the applicable Coastal Act sections and with past Commission action.

5. Alternative Designs and Locations

There are numerous alternatives to consider ranging from alternative designs to alternative locations for a shoreline protective device. As an example, it has been found that the further landward the bulkhead is located, the less beach scour will result. In response to the second application submittal on September 22, 1998, which included the 'unpermitted' underpinning in the application, Staff requested, in a letter dated October 22, 1998, a wave uprush study prepared in accordance with the Commission guidelines, since one was not submitted. Staff requested that the wave uprush study include a discussion and analysis of project alternatives in accordance with our guidelines for information needed for shoreline protective devices.

The applicant's engineer, David Weiss and Associates, addressed alternatives in the Coastal Engineering Report dated January 1, 1999 by stating:

There was no alternative to underpinning the wall. The footings were undermined. The void under the existing foundation had to be filled to prevent the wall from tipping over.

In a letter dated February 19, 1999, staff reiterated potential alternatives identified in Staff's letter dated September 2, 1998. The list of alternatives provided included the following alternatives:

Remove the wall and underpinning and construct a new and or different design for a shoreline device in the same location; remove the wall and underpinning and construct a new shoreline protective device further landward, reconstruct the bulkhead without the seaward encroachment of the footing with and without protective rock placed at the base, and other design alternatives.

In response, David Weiss and Associates, in a letter dated March 26, 1999 discussed two alternatives:

1. Removing the Rock and Constructing a Different Shoreline Protective Device:

The existing protective device is a reinforced concrete bulkhead wall. The wall was constructed in 1987 or 1988. There is some rock on the beach, but on this site it is buried in the cobble layer. Remove the rock

and construct a **different** device, what? To demolish the wall and construct a rock revetment doesn't make sense and certainly would be much more intrusive on the coastal environment. Additionally, to maintain the same line as the wall, the revetment would extend much further out onto the beach and onto the adjacent property to the east. There is a timber bulkhead in line with the subject concrete bulkhead, on the property (to) the west.

2. Demolish the Existing Bulkhead, Footing, Rocks, etc. and Building a New Device Further Landward:

If my memory serves me correctly, starting at about 23940 Malibu Road eastward to the east end of the Malibu colony, there is a continuous series of bulkheads all on line. The only exception is one lot to the east of the subject lot and that has no bulkheads at all. The subject bulkhead is in alignment with all of bulkheads to the west and just about every bulkhead landward presents a problem to the property owner to the west who now would have to construct a new return wall. Moving this wall further landward would cause the applicant unreasonable expense. It would destroy the applicant's yard that has been improved with quarry stone and marble patio decks, counters, bar-b-Q's, not to mention extensive and expensive landscaping and fencing. The existing wall was constructed with a valid coastal permit. To make the owner move it back now would be unjust, costly, and not even make sense.

Mr. Weiss continued to explain the reason the underpinning was constructed beneath and seaward of the base of the bulkhead:

Presently, the top of the underpinning is at elevation +4.5 M.S.L., i.e. the elevation of the top of the wall footing. During and just after the El Nino storms, the elevation of the beach, in front of the wall was approximately +2.5 M.S.L. On October 20, 1998, the elevation of the beach had returned to its "normal" elevation in the vicinity of the wall. On that date, the elevation of the sand was at elevation +10.6 M.S.L., or six feet higher than the top of the underpinning. There is a good chance that this underpinning might never see daylight again, except under the most severe storm conditions. The reason the underpinning extends seaward of the toe of the wall is that it would have been impossible to underpin the toe of this wall from the back or landward side without destroying the applicant's yard, causing extensive damage and unreasonable expense.

Neither the wall nor the underpinning has any effect on any of the issues that are of concern to the Coastal Commission. The wall does not block the passage of littoral material along the beach. The buried underpinning will not block the flow of material along the beach. As a matter of fact, the underpinning is buried in the natural cobble layer. Neither the wall nor the

underpinning inhibits public access along the beach. The underpinning is not unsightly (nor is the wall for that matter). Neither the wall nor the underpinning will cause "narrowing" of the beach. Neither the wall nor the underpinning have any impact on the beach for the simple reason, the water almost never touches either one. There just is no reason to move the wall or the underpinning.

Based on the above information, it was and still is my professional opinion that there is no alternative to underpinning the wall.

Although the applicant's consulting engineer has concluded that there is no reason to move the wall or underpinning, Staff requested in a letter dated June 4, 1999 that another alternative be addressed. Staff requested an analysis of an alternative to reduce or eliminate the encroachment on the beach of the underpinning which is located within the lateral access easement area. Staff requested an analysis of an alternative to demolish the vertical bulkhead and reconstruct it in the same location without the seaward encroachment of the underpinning. Staff also asked for information as to whether or not this alternative was feasible and if not feasible for cost reasons, an estimate of the cost in comparison to the construction cost of the 'as built' underpinning.

Mr. Weiss, the applicant's consulting engineer, addressed the issue of alternatives to the seaward extension in a "Response to Coastal Commission Request for Additional Information Regarding Feasibility of Relocating That Portion of the Existing Concrete Bulkhead Wall Underpinning Located Seaward of the Toe of the Existing Wall at 23910 Malibu Road, Malibu, CA, dated June 25, 1999. This alternative involves two tasks discussed in detail in this report. The first task is to remove the existing encroaching underpinning which involves substantial excavation to a depth of about 12 below sand level to remove the concrete underpinning. The second task would be to underpin the existing bulkhead from the landside by removing the patio and excavating to a depth of about 15 feet below the patio level with adequate shoring. Toe reinforcing would be constructed on the landward side with concrete and rebar. The consulting engineer estimates that the total cost of removing the underpinning and constructing a new underpinning from the landslide is about \$ 124,000. As a comparison, the cost to install the "unpermitted" underpinning in March 1998 was \$ 57,000. Mr. Weiss concluded that:

In summary, I'd like to say:

1. All of the existing improvements on this site were permitted by the Coastal Commission in the late 1980's.
2. The top of the underpinning is located approximately 10' below the "normal" sand elevation and will be exposed only under the most severe storm conditions.

3. The underpinning extends only into the 10' privacy buffer, not into the dedicated lateral access. (staff note, this issue is discussed further below)
4. The underpinning will neither inhibit lateral access nor will it block littoral materials from moving down stream.
5. The purpose of the "emergency" repairs or other work is to quickly protect the endangered structure/property. If the emergency repairs adversely effect the neighboring properties or the beach environment, it should be changed or removed after the emergency. As pointed out, the underpinning has no negative effects. To have installed the underpinning from the rear would probably have put the adjacent property at risk.
6. The only result of the underpinning was to stabilize the existing bulkhead during a severe storm season. No other improvements were added. The owner derived no other benefit than to save the existing concrete bulkhead.

The applicant's engineer also provided a clarifying letter titled: Underpinning of Existing Concrete Bulkhead Wall at 23910 Malibu Road, dated July 2, 1999. This letter included a copy of the original plans for the concrete bulkhead approved by the Commission in 1987. The original design specified that the toe of the footing would extend 1' 3" beyond the seaward face of the wall. Seaward of this footing, the 'unpermitted' underpinning extends about 2' 6" and 3' 9" seaward of the existing toe of the wall.

The issue of concern is that the underpinning extends seaward of the base of the existing bulkhead further seaward into the recorded lateral access easement. This issue is discussed further below.

6. Conclusion

Coastal Act sections 30235, 30253 and 30250(a) set forth the Commission's mandate relative to permitting shoreline protective devices and beachfront development. In order for the Commission to permit the proposed project, which includes an underpinning and an addition to the residence it must find the project consistent with the Chapter 3 policies of the Coastal Act.

Coastal Act Section 30235, cited above, states that shoreline protective devices such as revetments, bulkheads, and other construction that would alter natural shoreline processes shall be permitted when those structures are necessary to serve coastal-dependent uses or to protect existing structures or to protect public beaches in danger from erosion and when they are designed to eliminate or mitigate adverse impacts on local shoreline sand supply. In the case of this project, the proposed underpinning is necessary to protect the existing residence including the proposed addition. The underpinning, if the seaward encroachment is removed in accordance with Special Condition one (1) will be located at the

most landward location feasible. As conditioned, the proposed project would minimize adverse impacts on shoreline sand supply. The Commission notes that the applicant has constructed the bulkhead in a landward location as feasible in order to align the proposed bulkhead with the existing bulkhead to the west and to the bulkhead located on the second lot to the east of the applicant's project site. Alignment of the proposed underpinning of the existing bulkhead with the existing bulkhead to the west and the nearby bulkhead to the east will also minimize end effect scour and erosion between adjoining properties. Therefore, the Commission finds that the proposed project, as conditioned, meets the first and second tests of Section 30235.

Coastal Act section 30253, mandates that new development neither create nor contribute significantly to erosion, or contribute to 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 or cliffs. In past permit actions, the Commission has required that new shoreline protection devices be located as landward as possible to reduce adverse impacts to sand supply and public access resulting from the development. In the case of this project, the underpinning as revised by Special Condition one (1), will be located at the most landward location feasible.

Section 30250(a) of the Coastal Act states, in part, that new development not adversely affect, either individually or cumulatively, coastal resources. As explained in the preceding section regarding past Commission action on residential development, the proposed project is located on a fully developed stretch of beach and is considered to be infill development. The applicant proposes to construct an addition on the landward side of the existing residence. In addition, as conditioned the project minimizes adverse impacts resulting from the construction of the 'unpermitted' underpinning by ensuring that the structure is located as far landward as possible, in order to reduce adverse impacts to the sand supply and public access resulting from the development. The Commission finds that the underpinning, as conditioned to be located behind the stringline, will not have any adverse cumulative effects on coastal resources. In addition, the Commission finds that the underpinning and the residential addition is located within an existing developed area able to accommodate it and therefore meets Section 30250 of the Coastal Act. The Commission also finds that the proposed residential addition on the landward side of the existing residence, as conditioned, will minimize risks to life and property in areas of flood hazard and assure stability and structural integrity that will not require the construction of shoreline protective devices that would substantially alter natural landforms along the coast. Therefore, the Commission finds that the proposed project, as conditioned, is consistent with Sections 30235, 30250, and 30253 of the Coastal Act.

C. Hazards and Geologic Stability

Coastal Act Section 30253 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, 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.

Section 30253 of the Coastal Act mandates that new development provide for geologic stability and integrity and minimize risks to life and property in areas of high geologic, flood, and fire hazard. The proposed development would be located in the Santa Monica Mountains, an area that is generally considered to be subject to an unusually high amount of natural hazards. Geologic hazards common to the Santa Monica Mountains include landslides, erosion, and flooding. Beachfront sites are subject to flooding and erosion from storm waves. In addition to Section 30253 of the Coastal Act, the certified Malibu/Santa Monica Mountains LUP includes several policies and standards regarding hazards and geologic stability. These policies have been certified as consistent with the Coastal Act and used as guidance by the Commission in numerous past permit actions in evaluating a project's consistency with Section 30253 of the Coastal Act. For example, Policy 151 provides guidance to evaluate all new development for its impact on, and from, flood and mudflow hazard.

The Malibu coast has been subject to substantial damage as a result of storm and flood occurrences, geologic failures and firestorms. Therefore, it is necessary to review the proposed project and project site against the area's known hazards. The proposed project involves the construction of an 'unpermitted' underpinning to an existing vertical concrete bulkhead and an addition to the existing residence on the landward side of the residence. The underpinning, according to the applicant's consultant, was necessary in March 1998 to support the bulkhead and prevent it from toppling. The site is susceptible to flooding and or wave damage from storm waves and storm surge conditions.

The existing residence is a structure located on fill material over a sandy beach with a ground floor elevation of about 18 feet above Mean Sea Level (MSL). As proposed, the project consists of a one and two story addition on the landward side of the residence, the construction of a new stairway to the existing basement located at a finished floor elevation of nine feet above MSL, replacement of the existing septic tank and bulkhead underpinning.

The applicant's submittal included a Coastal Engineering Report addressing the underpinning of the existing vertical bulkhead. This Report was prepared by David Weiss and Associates dated January 1, 1999. This report concludes by recommending that the existing concrete bulkhead be underpinned to allow the bulkhead to continue to protect the existing hardscape, sewage disposal system, and foundations of the existing residence from being undermined by ocean wave action. This bulkhead will also protect the proposed residential addition to be located on the landward side of the residence.

During the winter season, the proposed underpinning of the bulkhead will extend into an area exposed to waves, storm waves, flooding, erosion, and liquefaction hazards that in the past have caused significant damage to development along the California coast, including the Malibu coastal zone and the beach area nearby the subject property. The Coastal Act recognizes that development, such as the proposed underpinning and residential addition, may involve the taking of some risk. Coastal Act policies require the Commission to establish the appropriate degree of risk acceptable for the proposed development and to determine who should assume the 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 his property.

The Commission finds that due to the unforeseen possibility of liquefaction, waves, storm waves, erosion, and flooding, the applicant shall assume these risks as a condition of approval. Because this risk of harm cannot be completely eliminated, the Commission is requiring the applicant to waive any claim of liability on the part of the Commission for damage to life or property which may occur as a result of the permitted development. The applicant's Assumption of Risk, Waiver of Liability and Indemnity, as required by Special Condition Number Two (2), when executed and recorded on the property deed, will show that the applicant is aware of and appreciated the nature of the hazards which exist on the site, and which may adversely affect the stability or safety of the proposed development.

The applicant has submitted a series of reports prepared by the consulting coastal engineer, a consulting engineering geologist, and a consulting engineer. These include: Update Geotechnical Engineering Report, West Coast Geotechnical, dated April 9, 1998; Update Engineering Geologic Report, Mountain Geology, Inc., dated March 24, 1998; Engineering Geologic Memorandum, Mountain Geology, Inc., dated June 7, 1998; Report on Observation of Construction of Underpinning of Existing Concrete Bulkhead Wall, David Weiss Structural Engineer & Associates, dated April 1, 1998; Coastal Engineering Report, David Weiss Structural Engineer & Associates, dated January 1, 1999; Response to Coastal Commission Request for Additional Information, David Weiss Structural Engineer & Associates, dated March 26, 1999; Response to Coastal Commission Request for Additional Information

Regarding Feasibility of Relocating That Portion of the Existing Concrete Bulkhead Wall Underpinning Located Seaward of the Toe of the Existing Wall, David Weiss Structural Engineer & Associates, dated June 25, 1999; Underpinning of Existing Concrete Bulkhead Wall, David Weiss Structural Engineer & Associates, dated July 2, 1999.

The consulting engineer in the Update Geotechnical Engineering Report dated April 9, 1998 by West Coast Geotechnical provided numerous recommendations concerning foundations, lateral design, foundation settlement, concrete slabs on grade, temporary excavations and shoring, drainage, and moisture protection. This consultant concludes that:

It is the opinion of West Coast Geotechnical that the proposed site improvements, as discussed in this report, will be safe against hazard from landslide, settlement or slippage, and that the proposed site improvements will not have an adverse affect on the stability of the subject site or immediate vicinity, provided our recommendations are made part of the development plans and are implemented during construction.

The project engineering geologists in the Update Engineering Geologic Report, dated March 24, 1998 by Mountain Geology also provided recommendations addressing temporary excavations and drainage. These consultants conclude that:

Based upon our exploration and experience with similar projects, construction of the proposed addition and deck is considered feasible from an engineering geologic standpoint provided the following recommendations are made a part of the plans and are implemented during construction.

As set forth in Section 30253 of the Coastal Act, new development shall assure structural integrity neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area. The Commission finds that the development consisting of the residential addition is consistent with Section 30253 of the Coastal Act so long as the engineering and geotechnical engineering consultants recommendations are incorporated into the project plans.

Based on the recommendations of the consulting engineer and geotechnical engineer, the Commission finds that the proposed development will minimize risks from geologic hazards, consistent with Section 30253 of the Coastal Act so long as the consultants' recommendations are incorporated into the project plans. Therefore, the Commission finds it necessary to require the applicant to submit project plans that have been certified in writing by the consultants as

conforming to their recommendations. This issue is address in Special Condition Number three (3).

Lastly, as noted above, the project involves some demolition and construction on a beachfront lot subject to tidal influence. The proposed development, with its limited excavation of sandy beach and terrace deposits with beach level construction activity, may result in disturbance of the offshore rocky intertidal and kelp bed habitat through erosion, siltation, and debris deposition. Construction equipment, materials and demolition debris could pose a significant hazard to beachgoers or swimmers if used or stored where subject to wave contact or situated in a manner that creates a hazard for beach users or marine life. Although the applicant has completed this proposed project on an emergency basis without the benefit of an Emergency Coastal Development Permit, the removal of the portion of the underpinning encroaching seaward is still a concern. As required by Special Condition Number One (1), this encroachment must be removed by March 31, 2002 and therefore, the applicant needs to ensure that the project contractor; (a) not store any construction/demotion materials or waste where it may be subject to wave erosion and dispersion; (b) not allow any machinery in the intertidal zone at any time; and (c) remove promptly from the beach any and all debris that results from the construction/demolition activities, as required by Special Condition Number Four (4). The Commission finds that the construction of the proposed project has minimized risks to life and property in this public beach area that is subject to wave hazards and the applicant has protected coastal resources during the removal of the encroachment.

The Commission finds, for the reasons set forth above, that the proposed development, as conditioned to conform to remove the seaward encroachment of the underpinning, plans conforming to the geologic and engineering recommendations, applicant's assumption of risk, and minimizing the impacts from construction debris, is consistent with Section 30253 of the Coastal Act.

D. Public Access and Visual Resources

One of the basic mandates of the Coastal Act is to maximize public access and recreational opportunities along the coast. The Coastal Act has several policies that address the issues of public access and recreation along the coast.

Section 30210 of the Coastal Act states:

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.

Section 30211 of the Coastal Act 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.

Section 30212 of the Coastal Act states (in part):

(a) Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where:

...

(2) adequate access exists nearby...

Section 30220 of the Coastal Act states:

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

1. Public Access

Coastal Act sections 30210 and 30211 mandate that maximum public access and recreational opportunities be provided and that development not interfere with the public's right to access the coast. Likewise, section 30212 of the Coastal Act requires that public access to the sea be provided, except where adequate access exists nearby. Section 30211 provides that development not interfere with the public's right of access to the sea including the use of dry sand and rocky coastal beaches. Section 30220 of the Coastal Act requires coastal areas suited for coastal recreational activities, that cannot be provided at inland water areas, be protected.

All beachfront projects requiring a Coastal Development Permit must be reviewed for compliance with the public access provisions of Chapter 3 of the Coastal Act. The Commission has required public access to and along the shoreline in new development projects and has required design changes in other projects to reduce interference with access to and along the shoreline. The major access issue in such permits is the occupation of sand area by a structure, in contradiction of Coastal Act policies 30210, 30211, and 30212. However, a conclusion that access may be mandated does not end the Commission's inquiry. As noted, Section 30210 imposes a duty on the Commission to administer the public access policies of the Coastal Act in a manner that is "consistent with ... the need to protect ... rights of private property owners...". The need to carefully review the potential impacts of a project when considering imposition of public access conditions was emphasized by the U.S. Supreme

Court's decision in the case of Nollan vs. California Coastal Commission. In that case, the court ruled that the Commission may legitimately require a lateral access easement where the proposed development has either individual or cumulative impacts which substantially impede the achievement of the State's legitimate interest in protecting access and where there is a connection, or nexus, between the impacts on access caused by the development and the easement the Commission is requiring to mitigate these impacts.

The Commission's experience in reviewing shoreline residential projects in Malibu indicates that individual and cumulative impacts on access from such projects can include among others: encroachment on lands subject to the public trust, thus, physically excluding the public; interference with natural shoreline processes which are necessary to maintain publicly-owned tidelands and other beach areas; overcrowding or congestion of such tideland or beach areas; and visual or psychological interference with the public's ability to use beach access and cause adverse impacts on public access.

As proposed by the applicants, the proposed 'unpermitted' underpinning extends two and one half to three and three quarters feet further seaward than the base of the existing vertical concrete bulkhead. As required by Special Condition Number One (1), this seaward encroachment of the underpinning will be removed by March 31, 2002. The construction of the residential addition, does constitute new development as it is an addition to the residence. The construction of the underpinning of the vertical bulkhead does not constitute new development as it is considered a repair.

The proposed project must be judged against the public access and recreation policies of the State Constitution, Sections 30210, 30211, 30212, and 30220 of the Coastal Act. Along the California coast, the line between land and ocean is complex and constantly moving. This dynamic environment has introduced uncertainty into questions about the location of public and private ownership as well as rights of public use. The dividing line between public tidelands and private uplands, or the tidal boundary, in California is the mean high tide line (MHTL), essentially the same as the ordinary high water mark or line.

As a practical matter the actual dividing line between sea and land moves constantly, and this gives rise to issues involving protection of public rights based on use, rather than ownership. These use rights arise 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 structures are of concern.

The beaches of Malibu are extensively used by visitors of both local and regional origin and most planning studies indicated that attendance of recreational sites will continue to significantly increase over the coming years. While the

Commission cannot determine if prescriptive rights exist on the subject property, it must protect those potential public rights by assuring that any proposed shoreline development does not interfere with or will only minimally interfere with those rights. Presently, this shoreline remains open and can be used by the public for access and general recreational activities.

Regarding vertical public access from Malibu Road to the beach, the project site is located about 400 feet east of a vertical public accessway (owned and operated by the County of Los Angeles since the 1960's) that has historically been used by the public to access Amarillo and Malibu Colony Beach. Malibu Colony Beach is located to the east of the subject site. Additionally, there are at least three other vertical accessways that lead from Malibu Road to Puerco and Amarillo Beaches further to the west of the subject site. In addition, there is a vertical accessway near Malibu Lagoon State Beach (Surfrider Beach) located about 1,000 feet to the east of the subject site. Therefore, vertical access to the beach exists nearby.

Regarding lateral public access and state tidelands ownership, the State Lands Commission, in a letter dated November 5, 1997, reviewed the proposed residential addition. In addition, this letter identified that the area waterward of the existing structure is subject to a public passive recreational easement with a 10' privacy buffer. The State Lands Commission staff noted that they do not have sufficient information to determine whether the project intrudes upon state sovereign lands or interferes with other public rights. In a subsequent letter, dated January 5, 1999, the State Lands Commission addressed "After the Fact Approval of Emergency Repairs to an Existing Seawall". This letter addressed the underpinning or reinforcing of the existing seawall at the bottom of the seawall foundation. The State Lands Commission staff again noted that they do not have sufficient information to determine whether the project intrudes upon state sovereign lands or interferes with other public rights. This second letter also noted that the SLC has no indication that the repair work would interfere with this easement. This issue is discussed further below.

The applicant's engineer, in the Coastal Engineering Report, has identified the Mean High Tide Line (MHTL) as of 1928 and 1969 to be located about 235 and 260 feet, respectively, seaward of the landward property boundary and the Malibu Road right-of-way (Exhibit 7). The engineer provided a more recent "projected" MHTL located at about 270 feet from the Malibu Road right-of-way for the date of October 20, 1998. This more recent "project" MHTL is not based on a survey. The existing bulkhead with the underpinning is located as far seaward as between 153 - 162 feet (within the bulkhead stringline) from the Malibu Road right-of-way (Exhibit 11). Assuming these MHTL's are accurate, there is between about 75 to 110 feet of beach until the Mean High Tide Line is reached. It is important to note that although the MHTL is ambulatory there is no evidence that the proposed underpinning will extend to the MHTL or onto state sovereign lands.

According to the Commission's access records, there is an existing offer to dedicate a lateral public access easement recorded in 1986 on the applicant's property. This access easement is the result of the applicant's compliance with a Special Condition to Coastal Permit No. 5-85-512. As a result the location of this recorded access area in relation to the proposed 'unpermitted' underpinning is an important issue to address. Staff requested in a letter, dated February 25, 1999, to the applicant's agent that a site plan be prepared identifying this easement area including the privacy buffer area along with the seawall and underpinning. Staff received on April 14, 1999, a site plan prepared by Michael Amoroso, Licensed Land Surveyor, indicating that the public access easement area was located immediately seaward of the existing seawall/bulkhead (Exhibit 12). This plan indicated that the underpinning extends seaward about five feet from the base of the vertical seawall. This plan located the seaward portion of the underpinning within this public access easement area, more specifically the ten foot privacy buffer area. As a result of staff's review of this site plan, staff requested additional information on an alternative to demolish the seaward extension of the underpinning and reconstruct it on the landward side in a letter dated June 4, 1999. The applicant's consulting engineer responded in a letter received July 6, 1999 that based on a review of the original design plans, dated 3-9-87 and the 'as built detail' plans that the seaward extension is actually between two and one half (2'6") and three and three quarters feet (3' 9") seaward of the existing toe of the wall, which includes the toe of the footing. The toe of the footing or base of the concrete bulkhead, as approved by the Commission in 1987 extends seaward about one and one quarter (1' 3") feet from the face of the vertical wall. As a result, the seaward encroachment of this extension beyond the toe of the approved footing is between 2'6" and 3' 9". Staff met with the applicant's architect on August 5, 1999 to discuss possible alternative solutions to remove the seaward encroachment. The applicant's architect offered to remove the seaward encroachment. However, due to the depth of the underpinning, usually as deep as ten feet or more below sand level, the applicant has asked to have the option to remove the underpinning during the winter beach erosional period. A period of two winter seasons was requested. Due to delays in obtaining all necessary permits, the applicant has asked that two winter seasons be available for the removal of the underpinning, the applicant's choice of one season which would be proposed for the complete removal of the seaward encroachment. These two winter seasons would be the winter of 2000 - 2001 and 2001 - 2002. As a result, staff proposed to add a recommended Special Condition to ensure that this removal would be completed prior to March 31, 2002. The applicant or successors in interest shall also submit documentation including photographs and 'as built' plans signed by a licensed engineer within 30 days of the completion of the removal or by April 30, 2002, whichever is sooner, indicating that the entire seaward portion of the underpinning is removed as measured from the seaward end of the supporting base of the existing vertical concrete seawall. Special Condition Number One (1) provides for the removal of this encroachment as noted above.

Staff continued to review this application as there appeared to be a discrepancy in the measurements on the numerous site plans submitted by the applicant. A discrepancy was discovered during the review of the site plan overlaid with the recorded lateral access easement as compared to a site plan with the approved vertical bulkhead. The discovery revealed that the vertical bulkhead and a portion of the deck are located within the recorded lateral access easement area (Exhibits 10 and 11). The Commission approved Permit Amendment No. 5-85-512-A-2 to replace the existing (in 1987) sub-grade riprap protection barrier with a vertical concrete bulkhead and a sub-grade rock erosion and wave barrier to be located approximately 35 feet landward of the existing sub-grade rock. The then proposed vertical bulkhead was to be located at the base of the proposed deck and tie in with the nearest adjacent vertical bulkheads consistent with the stringline. The result of this amendment was to allow the construction of the vertical bulkhead and an extension of the deck into the recorded lateral access area. A review of the plans indicates that the vertical bulkhead and deck expansion encroaches between 22 and 32 feet into the lateral access area, an area of about 2,214 sq. ft. (Exhibits 10 - 12). To resolve this situation, the applicant has offered to revise the language in the lateral access easement to note that it supercedes and replaces the previous offer to dedicate a lateral access easement that was recorded in 1986. The reason a new offer to dedicate is needed is because the Commission has approved development, although unintentionally, to be located within the easement area. Special Condition Number Six (6) requires that the applicant follow through with their voluntary offer to record the revised offer to dedicate that will supercede and replace the offer to dedicate (instrument # 86-1638442, recorded on November 26, 1986).

In past permit actions, the Commission has required that new shoreline protective devices be located as landward as possible to reduce adverse impacts to the sand supply and public access resulting from development. In the case of the proposed project, the applicant has demonstrated that the bulkhead underpinning revised pursuant to Special Condition One (1) is located as far landward as feasible, as discussed in greater detail above. In addition, to ensure that no future changes or improvements to the subject bulkhead result in seaward expansion of the bulkhead, the Commission finds it necessary to impose Special Condition Number Five (5), which requires the applicant to record a deed restriction acknowledging that no future seaward expansion of the subject bulkhead will be authorized. If implemented, Special Condition Number Five (5) ensures that the adverse impacts of the subject shoreline protective device, the underpinning, considered herein by the Commission at present specifically in light of the fact that the bulkhead underpinning constructed pursuant to the requirements of Special Condition 1 will be located as far landward as possible, are not compounded in the future by a seaward expansion of the bulkhead. Any future seaward encroachment of the bulkhead undercuts

the mitigation of the bulkhead's adverse effects on the shoreline achieved by ensuring that the bulkhead is constructed as far landward as possible.

The Commission further notes that unauthorized postings of private signs illegally attempting to limit, or erroneously noticing restrictions on, public access have occurred on many beachfront private properties in the Malibu area, particularly in the area of Broad Beach. These signs have a chilling effect on legitimate, protected public access to public trust lands. The Commission has determined, therefore, that to ensure that such postings are clearly understood by the applicants to be off limits until or unless a coastal development permit is obtained for such signage, it is necessary to impose Special Condition Number Seven (7) to ensure that similar signs are not posted on or near the proposed revetment or existing apartment structures. The Commission finds that if implemented, Special Condition Number Seven (7) will help to protect the public's right of access to the sandy beach below the MHTL.

2. Stringline Review and Visual Resources

Section 30251 of the Coastal Act states:

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.

Through Coastal Act Section 30251 noted above and Sections 30210, 30211, 30253 and in other sections of this report, the Commission has developed the "stringline" policy to control the seaward extent of buildout in past permit actions. As applied to beachfront development, the stringline limits extension of a structure to a line drawn between the nearest corners of adjacent structures, and limits decks and windscreens to a similar line drawn between the nearest corners of adjacent structures and decks.

The Commission has applied this policy to numerous past permits involving infill on sandy beaches and has found it to be an effective policy tool in preventing further encroachments onto sandy beaches. In addition, the Commission has found that restricting new development to buildings and decks is an effective means of controlling seaward encroachment to ensure maximum public access

as required by Sections 30210 and 30211 and to protect public views and scenic quality of the shoreline as required by Section 30251 of the Coastal Act.

The applicant has submitted a plan identifying the stringline by locating the vertical bulkhead in relation to the existing bulkheads on either side of the project site (Exhibit 11). The plan indicates that the bulkhead is located within the stringline of the adjacent bulkhead to the west and the bulkhead located one lot beyond the adjoining lot to the east. The adjoining lot and residence located to the east does not have a bulkhead or seawall. However, the underpinning as discussed above in this report does encroach further seaward beyond the toe of the base of the vertical seawall. Therefore, the Commission finds that the proposed "unpermitted" underpinning does not conform to this setback. As required by Special Condition Number One (1) the applicant is required to remove the seaward encroachment of the underpinning by March 31, 2002.

And lastly, pursuant to Section 30251 of the Coastal Act, the Commission reviews the publicly accessible locations along adjacent public roads and the sandy beach where the proposed development is visible to assess visual impacts to the public. The Commission examines the proposed construction site and the size of the proposed project. The existing residence and solid wall along Malibu Road already blocks public views from the highway to the beach and ocean. Although the proposed two story addition will be visible from Malibu Road, a public road, it will not be visible from the sandy beach. In addition, the underpinning is buried up to about ten feet deep by the sandy beach most of the year, but will be visible from the beach during a portion of the winter storm season on a limited basis. With the removal of the seaward encroachment as required by Special Condition Number One (1), the underpinning will be even less visible. However, the more scenic inland views of the Santa Monica Mountains as viewed from the beach and water are well above these existing and proposed developments. Thus, the proposed underpinning, as conditioned, and the residential addition will not adversely affect existing public views.

Therefore, the Commission finds that the proposed project, as conditioned, will have no individual or cumulative impacts on public access on the sandy beach seaward of the residence or public views to and along the coast, and is thus, consistent with Sections 30210, 30211, 30212, 30220, and 30251 of the Coastal Act.

E. Septic System

The proposed development includes the removal and installation of an on-site septic tank to provide sewage disposal. The Commission recognizes that the potential build-out of lots in the Santa Monica Mountains, and the resultant installation of septic systems, may contribute to adverse health effects and geologic hazards in the local area. Section 30231 of the Coastal Act states that:

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, and minimizing alteration of natural streams.

In addition, the Malibu/Santa Monica Mountains Land Use Plan, which the Commission has relied upon for guidance in past decisions, contains the following policies concerning sewage disposal:

P217 Wastewater management operations within the Malibu Coastal Zone shall not degrade streams or adjacent coastal waters or cause or aggravate public health problems.

The proposed development includes the removal and installation of a new on-site septic tank to continue serving the existing residence and the proposed residential addition. The applicant has submitted evidence of the City of Malibu Environmental Health Department's in-concept approval dated May 26, 1998 for the proposed septic system.

In addition, the applicant's consulting geotechnical engineering concluded that continued use of the private sewage disposal system would have no adverse effect upon the stability of the site or adjacent properties provided the recommendations of the Engineering Geologist and Geotechnical Engineer are complied with during construction. These recommendations are included in Special Condition number three (3). The City of Malibu's minimum health code standards for septic systems have been found protective of coastal resources and take into consideration the percolation capacity of soils along the coastline, depth to groundwater, etc. The Commission finds that as conditioned, therefore, the project is consistent with Section 30231 of the Coastal Act.

E. Violation

Although development has taken place prior to the filing of this permit application, consideration of the application by the Commission has been based solely upon the Chapter 3 policies of the Coastal Act. Review of this permit does not constitute a waiver of any legal action with regard to any violation of the Coastal Act that may have occurred.

The proposed 'as built' underpinning of the existing bulkhead all located on a sandy beach requires a coastal permit in order to be in conformance with the

Coastal Act. The Commission finds it necessary to require the applicant to fulfill all of the Special Conditions as a prerequisite to the issuance of this permit, as required by Special Condition Number Eight (8) within a reasonable period of time, within 90 days of Commission action. Only as conditioned is the proposed development consistent with the Coastal Act.

F. Local Coastal Program

Section 30604 of the Coastal Act states that:

a) 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 development will not create adverse impacts and is found to be consistent with the applicable policies contained in Chapter 3. 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 also consistent with the policies of Chapter 3 of the Coastal Act as required by Section 30604(a).

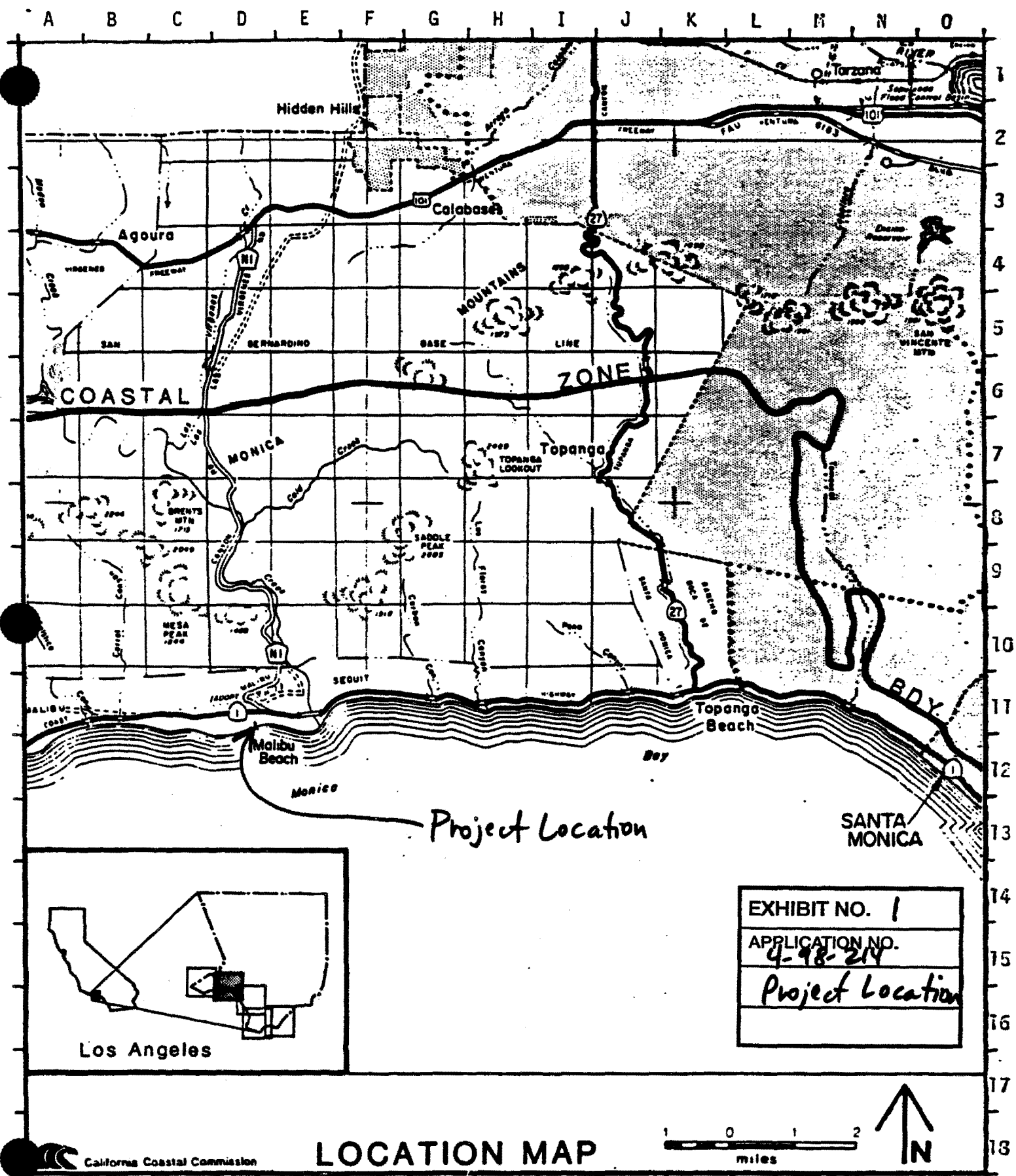
G. California Environmental Quality Act (CEQA)

Section 13096(a) of the Commission's administrative regulations requires Commission approval of 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 Environmental 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 which the activity may have on the environment.

The Commission finds that, the proposed project, as conditioned will not have significant adverse effects on the environment, within the meaning of the California Environmental Quality Act of 1970. Therefore, the proposed project,

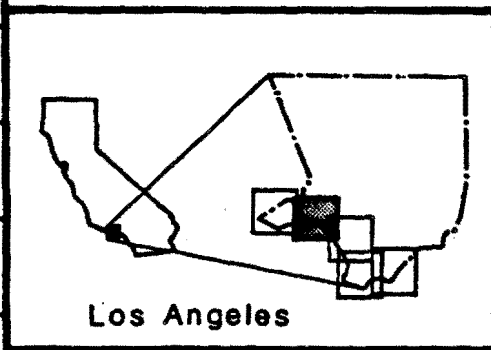
as conditioned, has been adequately mitigated and is determined to be consistent with CEQA and the policies of the Coastal Act.

498214malibucolonytrustreport



Project Location

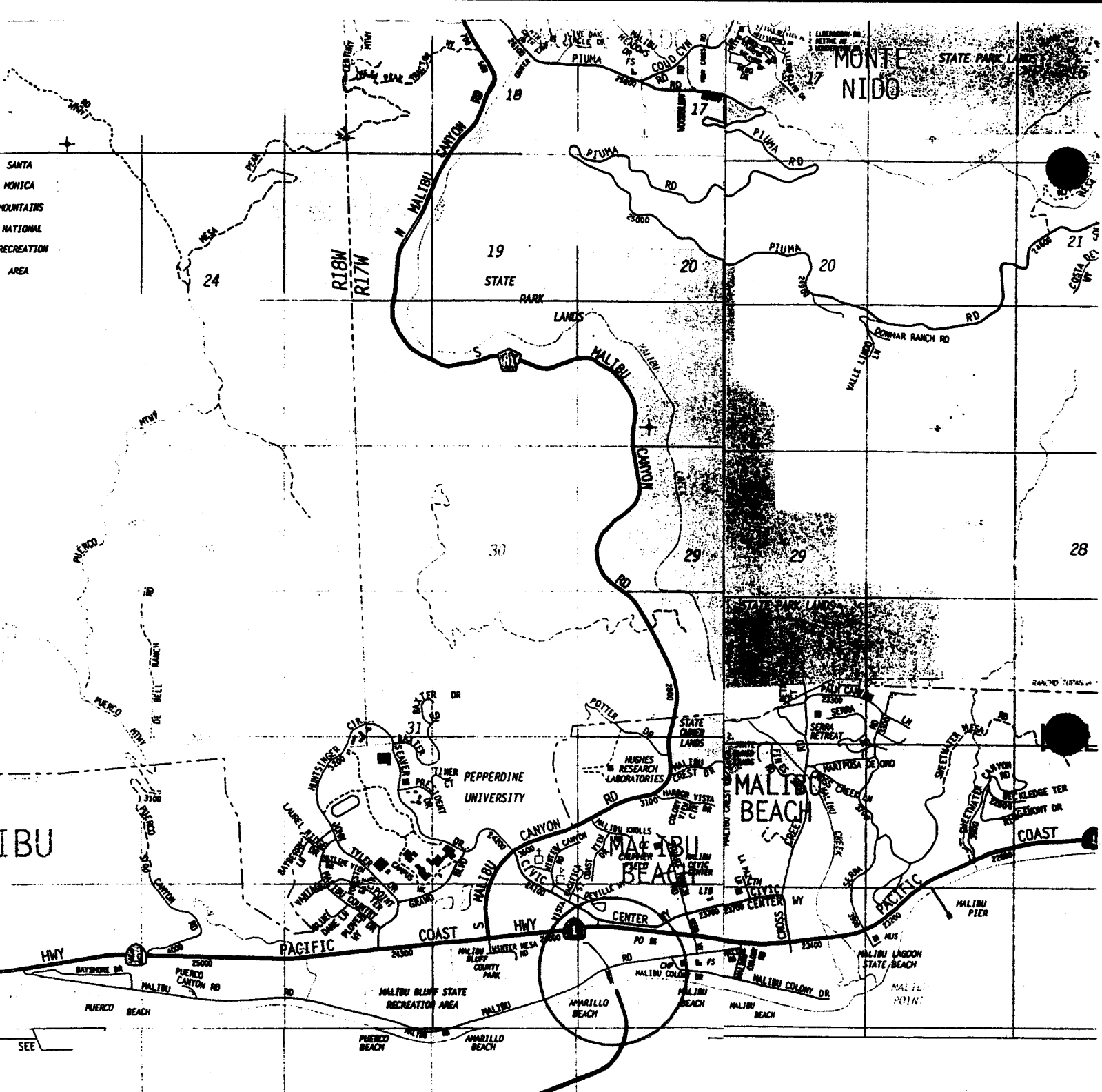
EXHIBIT NO. 1
APPLICATION NO. 4-98-214
Project Location



Los Angeles

LOCATION MAP





Project Site

RECEIVED

AUG 03 1998

CALIFORNIA
COASTAL COMMISSION
SOUTH CENTRAL COAST

EXHIBIT NO. 2
APPLICATION NO. 4-98-214
Project Site

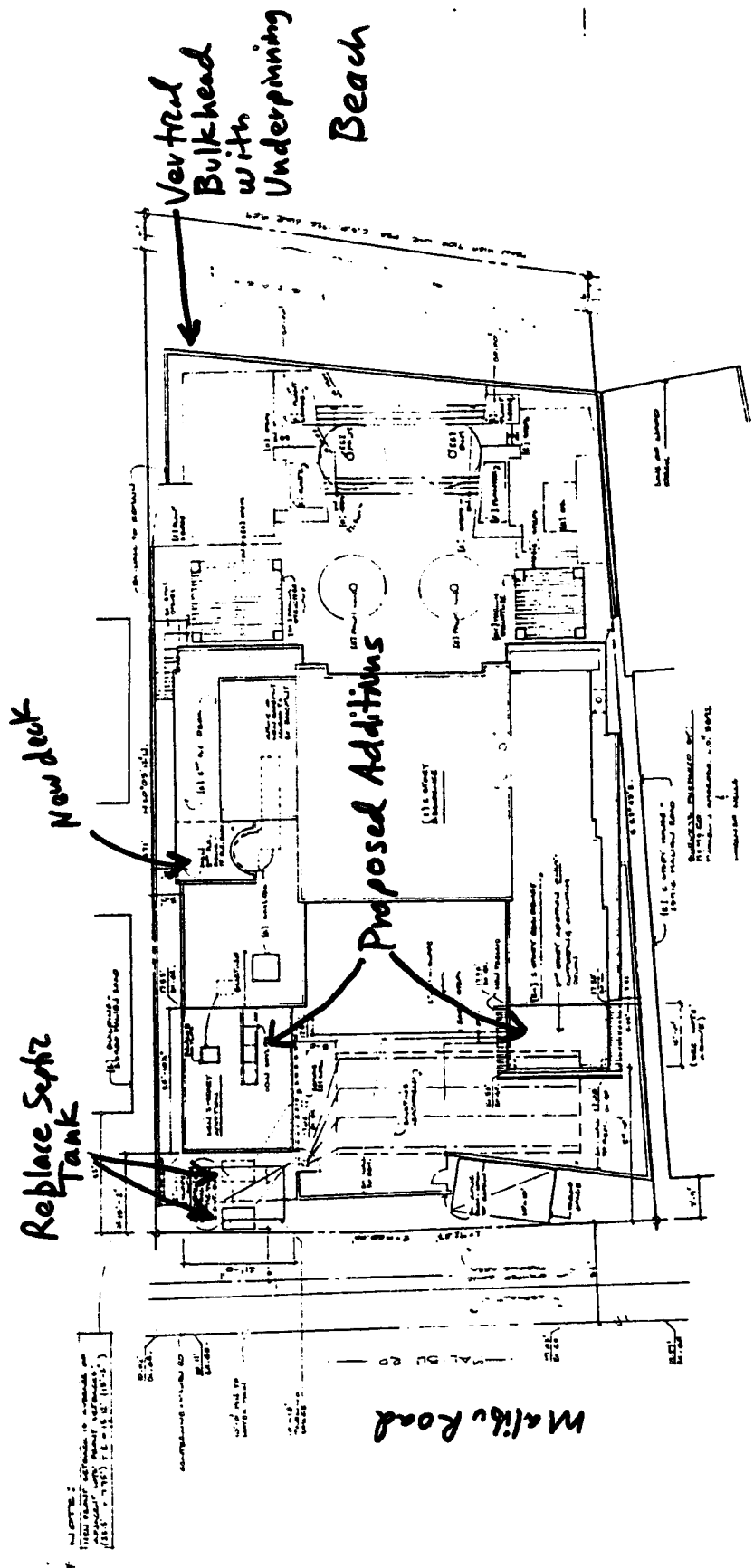
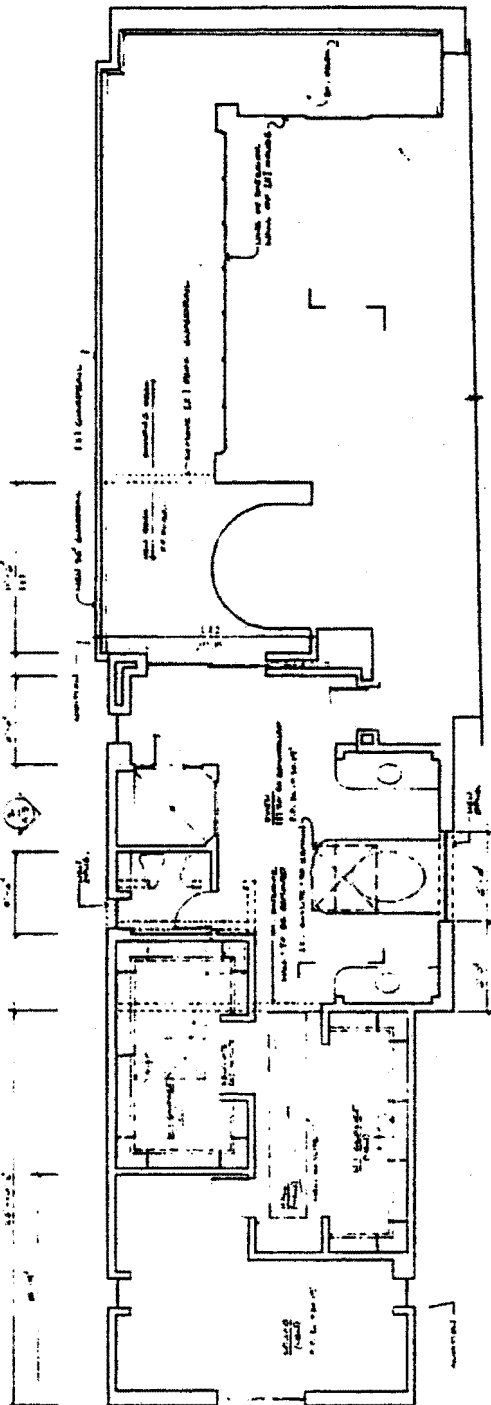
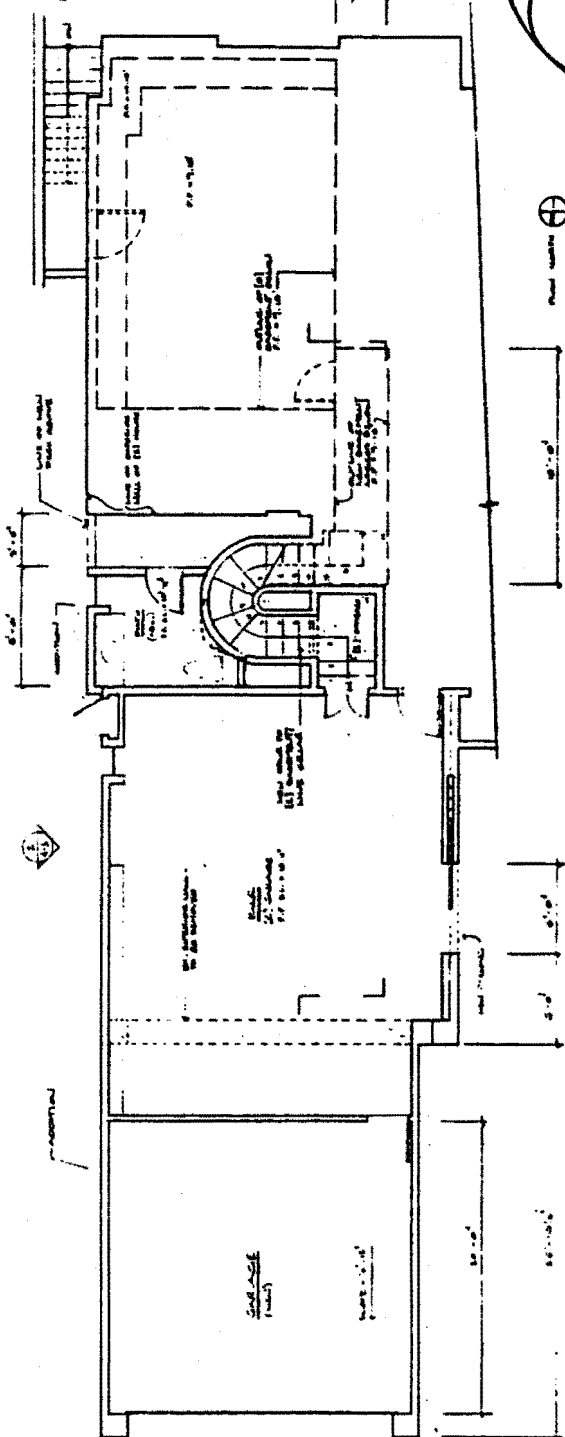


EXHIBIT NO. 3
APPLICATION NO. 9-98-214
Site Plan



PARTIAL SECOND FLOOR PLAN/EAST WING
11-1-78



PARTIAL FIRST FLOOR PLAN/EAST WING
11-1-78

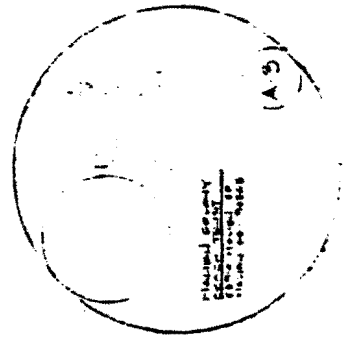
gtd
 A. Thomas Jones, III
 21543 Bunko Vale
 Malibu, California 90265

PLANNING CONSULTANT
 ARCHITECT
 20% CONTRACTOR
 10% CONTRACTOR

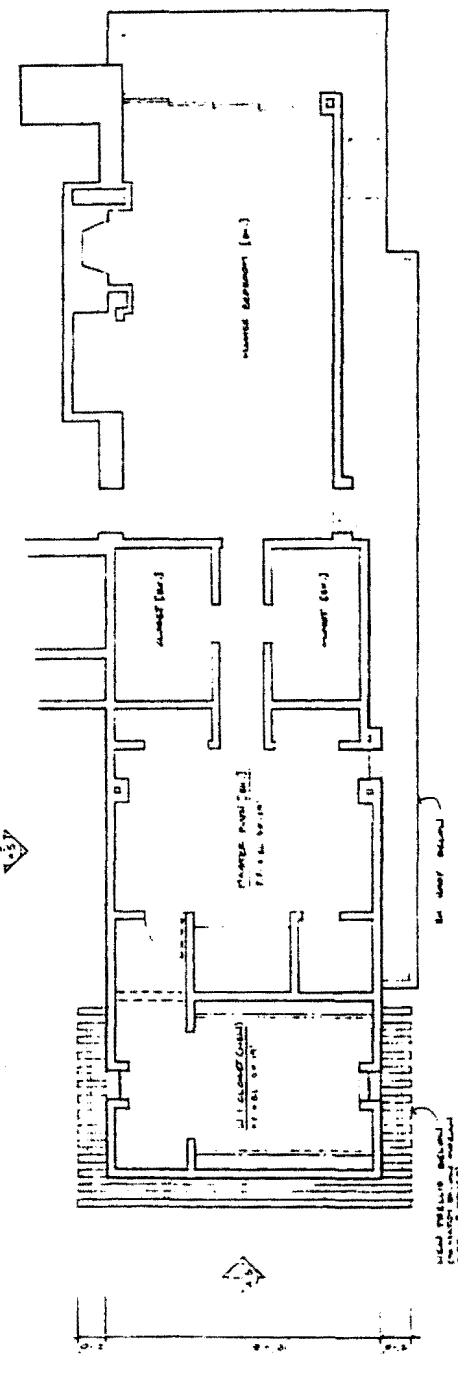
A-2

Legend:
 --- Structural
 --- to be retained
 --- to be removed
 --- new

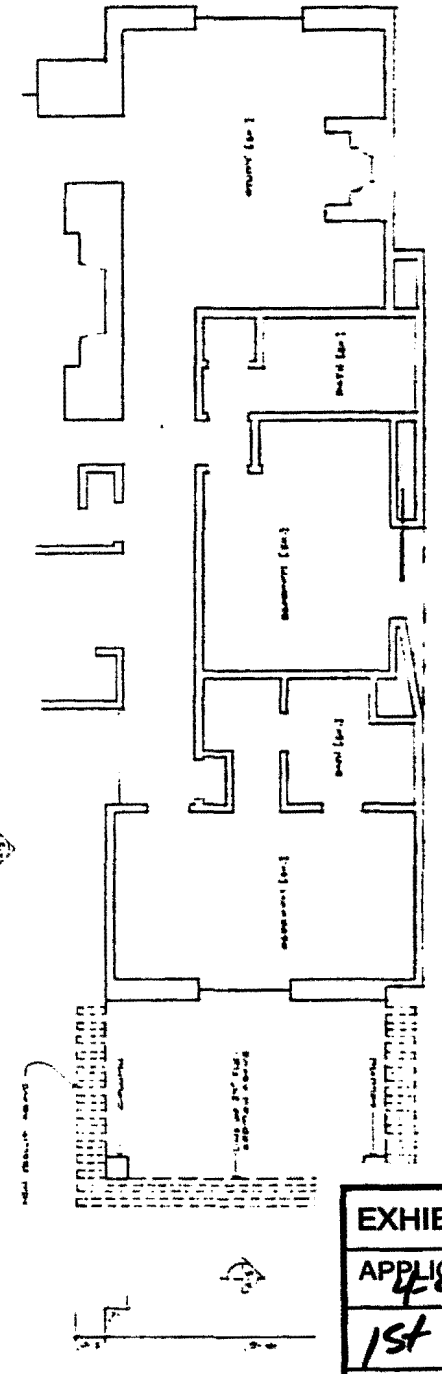
EXHIBIT NO. 4
 APPLICATION NO.
 4-98-214
 1st and 2nd
 Floor Additions



LEGEND
 ...
 ...
 ...
 ...
 ...



PARTIAL SECOND FLOOR PLAN (WEST)
 1/2" = 1'



PARTIAL FIRST FLOOR PLAN (WEST)
 1/2" = 1'

EXHIBIT NO. 5
APPLICATION NO. 498-219
1st & 2nd
Floors

EXHIBIT NO. 6

APPLICATION NO. 4-98-214

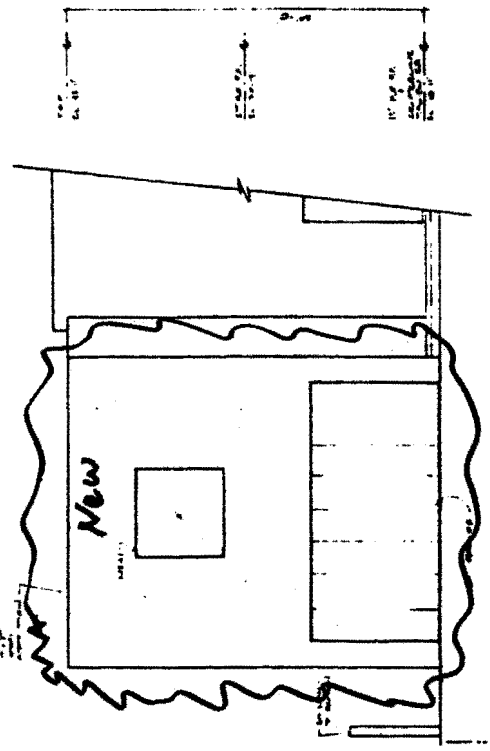
Elevations

GTE

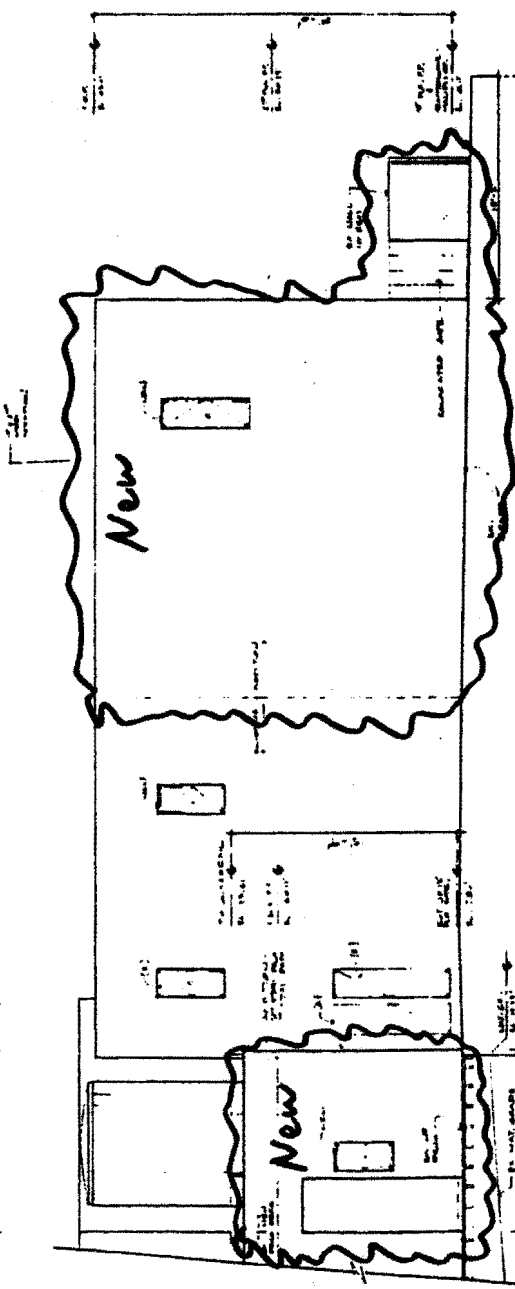
A. Thomas Torres, MA
21633 Ramble Walk
Holliston, California 90345

A-1

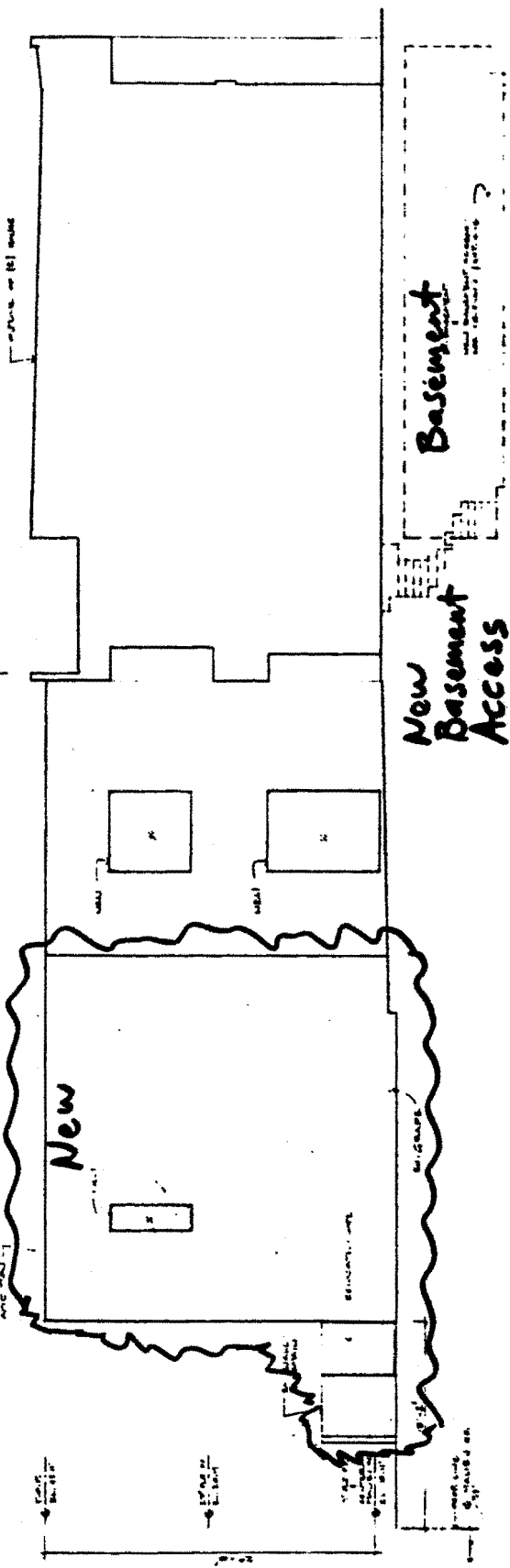
DATE: 11/11/98
DRAWN BY: [illegible]
CHECKED BY: [illegible]



1 NORTH ELEVATION/EAST WING



2 EAST ELEVATION/EAST WING



3 WEST ELEVATION/EAST WING

1. ALL NEW CONSTRUCTION SHALL BE SHOWN WITH A WAVE LINE.
2. ALL EXISTING CONSTRUCTION SHALL BE SHOWN WITH A DASH LINE.
3. ALL DIMENSIONS SHALL BE SHOWN WITH ARROWS AND DIMENSION LINES.
4. ALL DIMENSIONS SHALL BE IN FEET AND INCHES.
5. ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED.



CITY OF MALIBU
 PLANNING DEPARTMENT
 APPROVAL IN CONCEPT

SIGNATURE [Signature]
 DATE 3-10-98
 PLANNING REVIEW NO. _____

THIS IS NOT A PERMIT
 AND IS SUBJECT TO ANY
 CONDITIONS LISTED BELOW

THIS APPROVAL IS VALID FOR 1 YR FROM THE DATE STAMPED.

EXISTING REINFORCED CONCRETE RETAINING WALL & FTG TO REMAIN UNCHANGED

RECEIVED
 JAN 21 1999

CALIFORNIA
 COASTAL COMMISSION
 SOUTH CENTRAL COAST DISTRICT

Bulkhead

ALL REINF TO conform TO ASTM A313-680 G0 & SHALL BE EPOXY COATED PER ASTM STD A 715.

Dry race w/ pre-cast or equal

UNDERPIN TOE OF WALL W/ 2500 P.S.T. CONC. U/D CONT. IMP. DRED. USE "A", "B", "C" SLOT METHOD OF EXCAVATION W/ MAX 8' TOTAL SLOTS

REINFORCEM CAGES ARE TO BE EA. VAR. W/ 1/4" STRAIGHT TIE BARS TOP + BOT @ 1'-0"

1.0H.SL OR 1' INTO BEDROCK WITH MINOR 1.5 HIGHER

Underpinning
 Area to be Removed per Condition #1

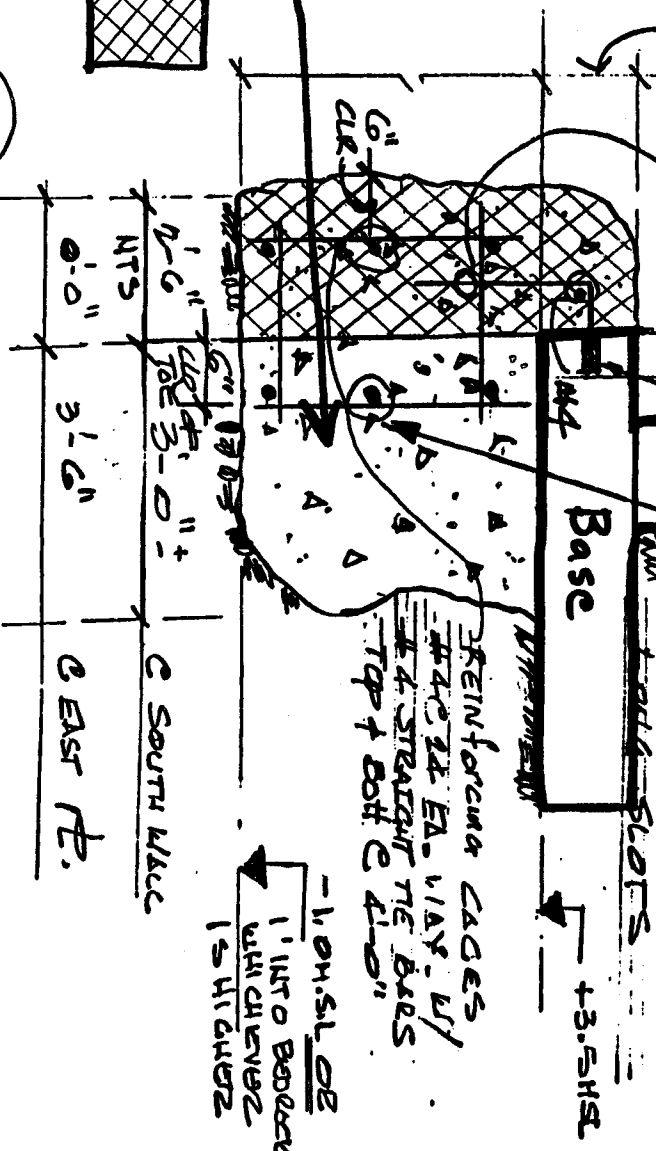
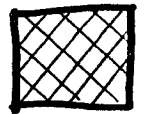


EXHIBIT NO. 9
APPLICATION # 219
Bulk head
Underpinning

1

EXISTING RETAINING WALL UNDERPINNING SECTION

PILMER RESIDENCE
 23910 Malibu Road
 Malibu, CA
 3-9-98

RECEIVED
 CFD 25 1998
 PLANNING DEPT.

POST TOP OF WALL + 13.5 H.S.L

41

EXHIBIT 1

South Coast District Office

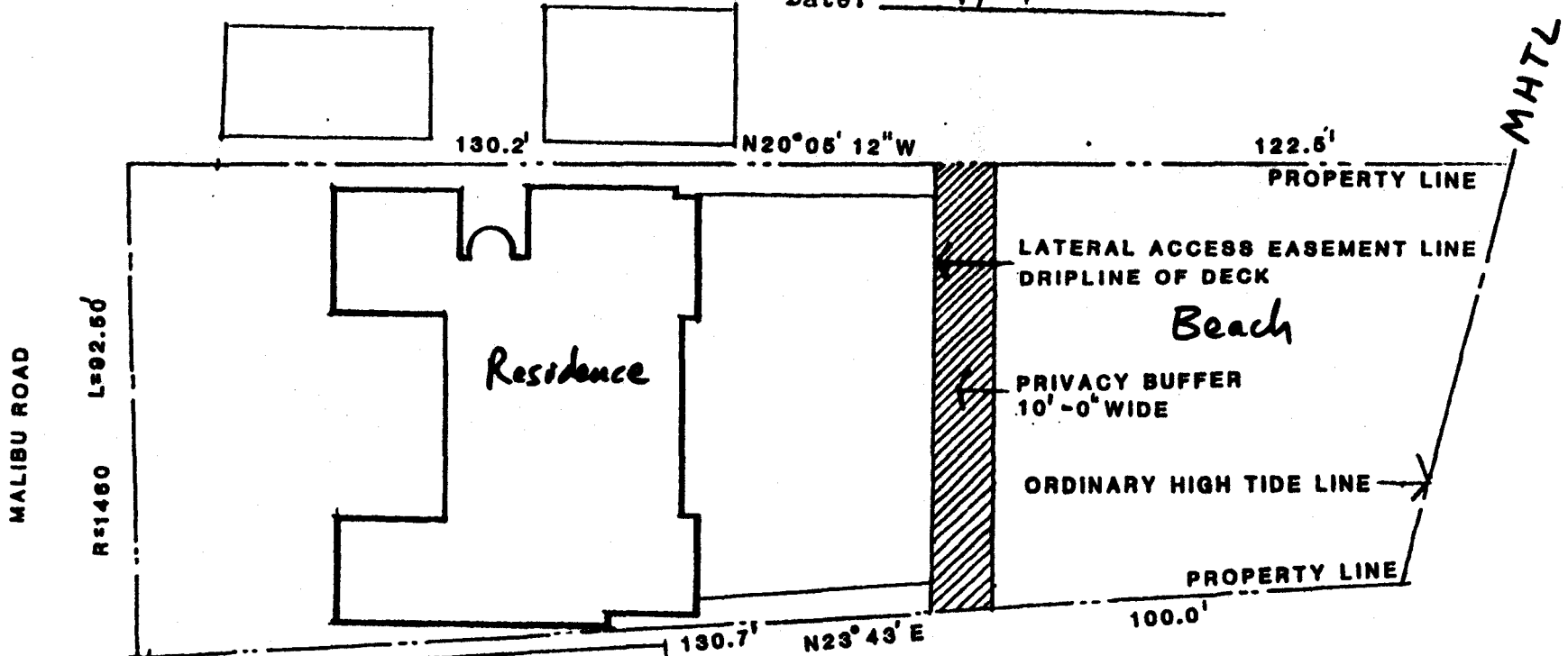
APPROVED
Permit No. 5-85-512

By: [Signature]

EFFECTIVE
Date: 8/20/85

**WARNER AND
GRAY INC.
ARCHITECTS**

1225 COAST VILLAGE ROAD
SANTA BARBARA CA. 93108
805 969 5071



Page 7 of 8

86 1638442

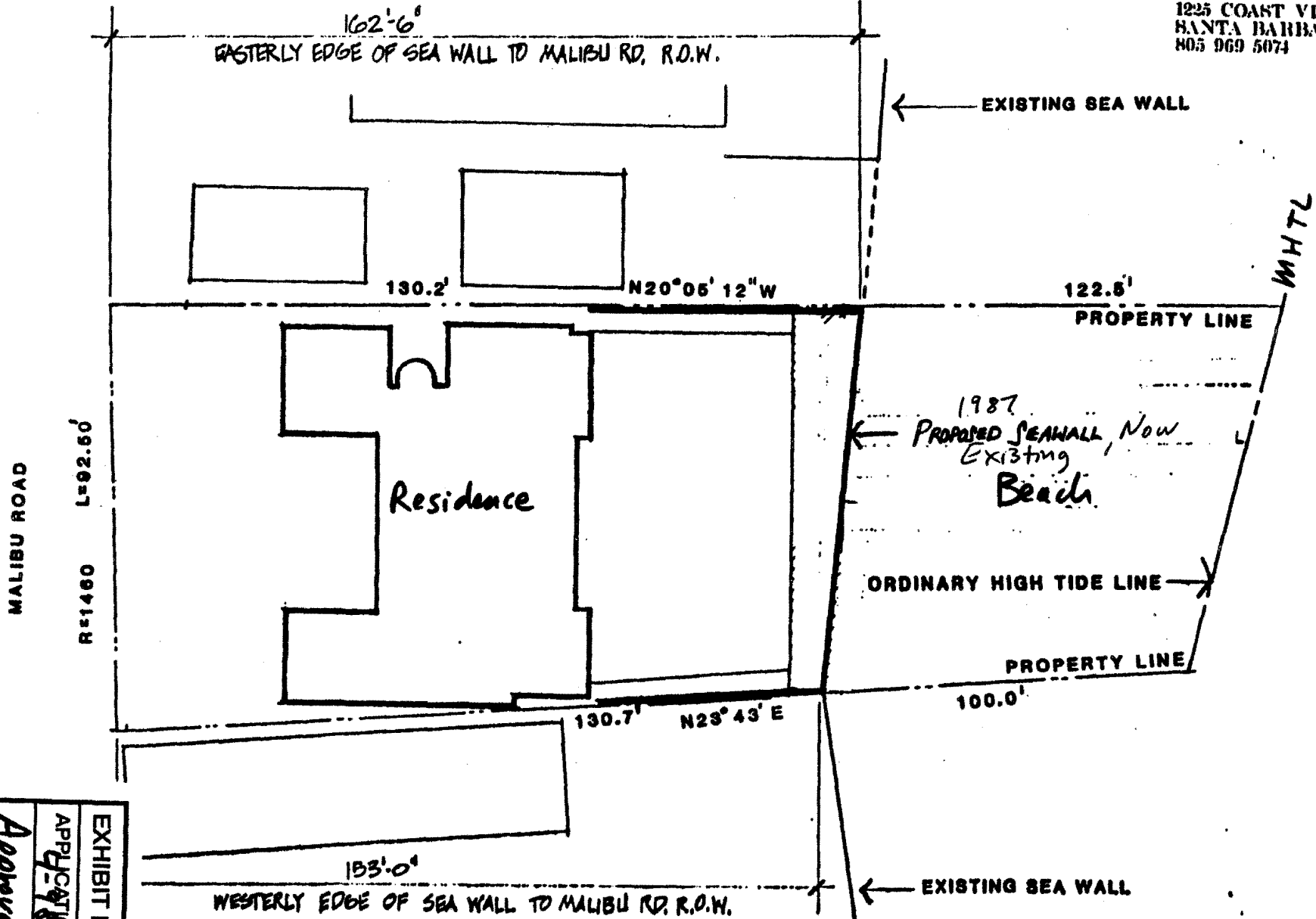
EXHIBIT NO. 1
APPLICATION NO. 5-85-512
Recorded Lateral Access Area

AUDREY and SYDNEY IRMAS
23910 Malibu Road
Malibu, California

AMENDED CONCRETE SEA WALL. 5-85-512-A 2

WARNER AND GRAY INC ARCHITECTS
 1225 COAST VILLAGE ROAD
 SANTA BARBARA CA. 93108
 NO 5 969 5074

852000

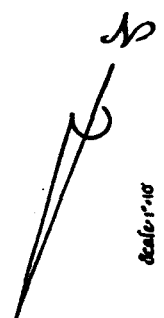
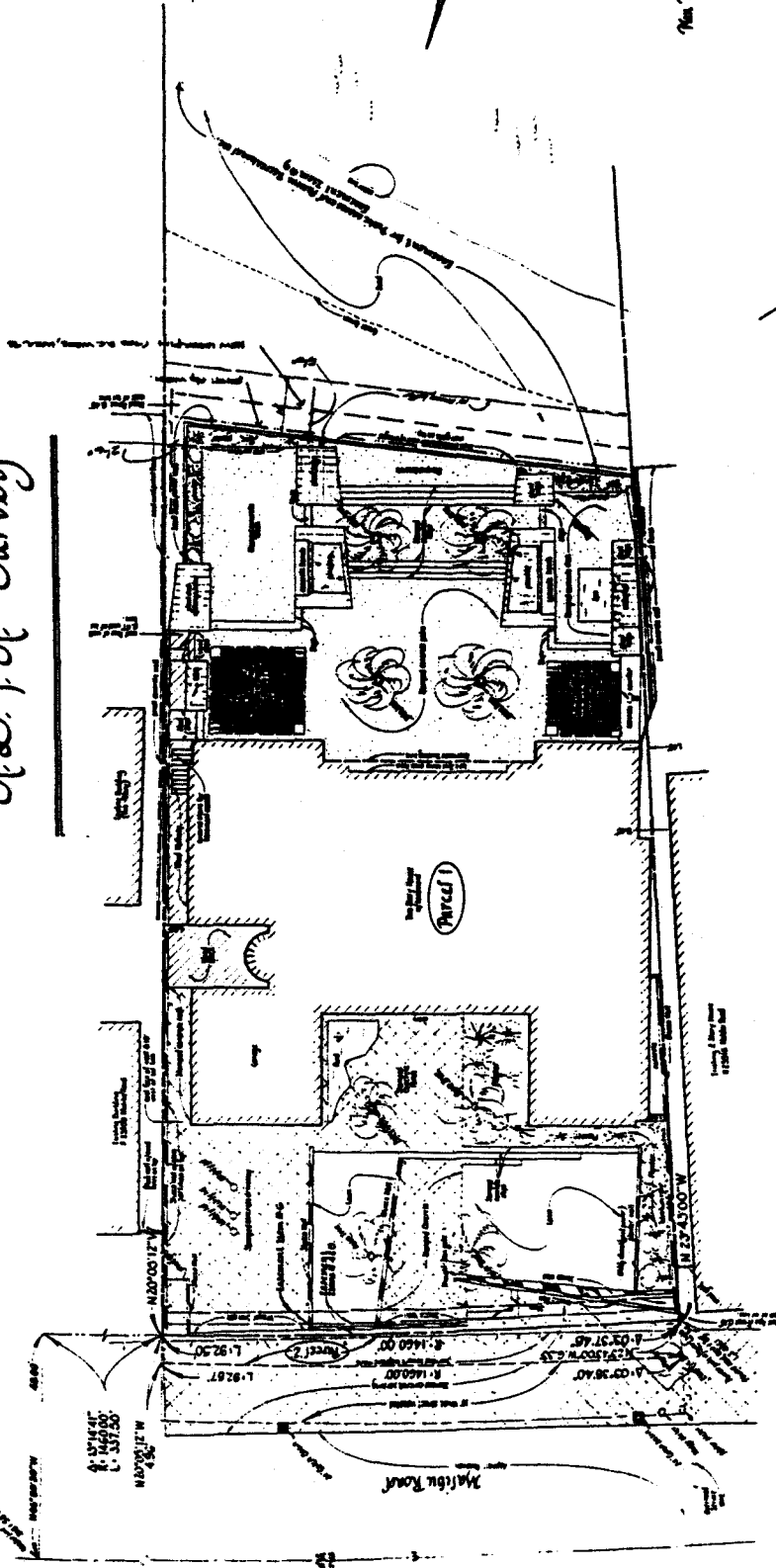


RECEIVED
 FEB 06 1987
 CALIFORNIA COASTAL COMMISSION
 SOUTH COAST DISTRICT

EXHIBIT NO. 11
 APPLICATION 1984
 Approved Seawall & Deck Expansion

AUDREY and SYDNEY IRMAS
 23910 Malibu Road
 Malibu, California

A.L.T.A. Survey



Map Prepared for **Madison D. Green, Trustee of the Malibu Colony Beach Trust, Malibu, California 90263**
 Date: **November 2, 1999**
 For: **West Shore Agency, and floor 4th Floor, 7th Street, Los Angeles, CA 90014**
 (310) 277-4444

Map Prepared by **J.C. & Co. Inc., 1000 Wilshire Blvd., Suite 1000, Los Angeles, CA 90017**
 (310) 277-4444

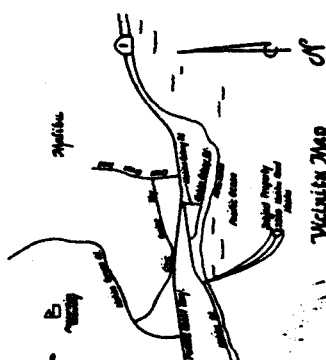


EXHIBIT NO. 12

APPLICATION NO. 612-89-B

Site Plan with New Access Offer

PREPARED FOR: Madison D. Green, Trustee of the Malibu Colony Beach Trust, Malibu, California 90263

DATE: November 2, 1999

FOR: West Shore Agency, and floor 4th Floor, 7th Street, Los Angeles, CA 90014

PREPARED BY: J.C. & Co. Inc., 1000 Wilshire Blvd., Suite 1000, Los Angeles, CA 90017



[Handwritten signature]