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CALIFORNIA COASTAL COMMISSION
CENTRAL COAST AREA
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Staff:	J Johnson
Staff Report:	1/22/03
Hearing Date:	2/6/03
Commission Action:	

STAFF REPORT: REGULAR CALENDAR

APPLICATION NO.: 4-02-166

APPLICANT: LAS Investments

AGENT: John Staff, AIA

PROJECT LOCATION: 24166 Malibu Road, City of Malibu

PROJECT DESCRIPTION: Proposal to demolish retaining wall, and construct 2-story 4,871 sq. ft. single-family home, 742 sq.ft. garages, bulkhead retaining wall, concrete piles, alternative septic system, below-grade slide retention structure, 291 cu.yds. of grading, and no landscaping.

Lot area	7,930 sq. ft.
Building Coverage	3,207 sq. ft.
Pavement Coverage	880 sq. ft.
Landscape coverage	0 sq. ft.
Height Above Finished Grade	28 ft.
Parking Spaces	3

LOCAL APPROVALS RECEIVED: City of Malibu Planning Department, Approval in Concept, 8/16/02; City of Malibu Environmental Health, Approval in Concept, April 14, 2002; City of Malibu Fire Department Review 6/26/02; City of Malibu Geology and Geotechnical Engineering Review, Approved in concept, dated 10/9/01; County of Los Angeles Fire Department, Final Fuel Modification Plan Approved 6/22/02.

SUBSTANTIVE FILE DOCUMENTS: Certified Malibu Local Coastal Program; Coastal Development Permit 4-97-102 (Campbell); Coastal Permit 4-02-118 (Johnson); Coastal Permit 4-99-239 (Sol Brothers); Update Engineering Geological Report by Mountain Geologic, Inc. dated April 23, 2001; Update Geotechnical Engineering Investigation Report, by Coastline Geotechnical Consultants, dated May 16, 2001; Wave Uprush Study by Pacific Engineering Group, dated January 18, 2000; Public access dedication recorded February 4, 1976.

Summary of Staff Recommendation

Staff recommends ***approval*** of the proposed project with **eleven (11) special conditions** addressing (1) geologic, engineering, and geotechnical recommendations, (2) assumption of risk/shoreline protection, (3) generic deed restriction, (4) construction responsibilities and debris removal, (5) provisional term for shoreline protective structure, (6) sign restriction, (7) exterior lighting restriction, (8) erosion control, drainage and polluted runoff control plans, (9) on-site wastewater treatment system requirements, (10) revised plans, and (11) public view corridor.

Staff Note
Due to Permit Streamlining Act Requirements the Commission must act on this permit application at the February 2003 Commission meeting.

I. Staff Recommendation

MOTION: ***I move that the Commission approve Coastal Development Permit No. 4-02-166 pursuant to the staff recommendation.***

Staff Recommendation of Approval:

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

Resolution to Approve the Permit:

The Commission hereby approves a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the Malibu Local Coastal Program. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. Standard Conditions

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. **Interpretation.** Any questions of intent or interpretation of any term or condition will be resolved by the Executive Director or the Commission.

4. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

5. **Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

III. Special Conditions

1. Plans Conforming to Geologic, Engineering, and Geotechnical Consultants' Recommendations

All recommendations contained in the Update Engineering Geological Report by Mountain Geologic, Inc. dated April 23, 2001; Update Geotechnical Engineering Investigation Report, by Coastline Geotechnical Consultants, dated May 16, 2001; Wave Uprush Study by Pacific Engineering Group, dated January 18, 2000 shall be incorporated into all final design and construction including *grading and retaining walls, foundation setback, temporary excavations, sewage disposal, drainage, piles, slabs, and finished floor elevation*. Final plans must be reviewed and approved by the project's consulting engineer, geotechnical engineer and geologist. **Prior to issuance of the coastal development permit**, the applicant shall submit, for review and approval by the Executive Director, two sets of plans with evidence of the consultant's review and approval of all project plans.

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

2. Assumption of Risk/Shoreline Protection

By acceptance of this permit, the applicant acknowledges and agrees to the following:

1. The applicant acknowledges and agrees that the site may be subject to hazards from liquefaction, storm waves, surges, erosion, landslide, flooding, and wildfire.

2. The applicant acknowledges and agrees 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.

3. The applicant unconditionally waives any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards.

4. The applicant agrees 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.

5. No future repair or maintenance, enhancement, reinforcement, or any other activity affecting the shoreline protective device approved pursuant to Coastal Development Permit 4-02-166 shall be undertaken if such activity extends the seaward footprint of the subject shoreline protective device. By acceptance of this permit, the applicant hereby waives, on behalf of itself and all successors and assigns, any rights to such activity that may exist under Public Resources Code section 30235.

3. Generic Deed Restriction

Prior to the Issuance of the Coastal Development Permit, the applicant shall submit to the Executive Director for review and approval documentation demonstrating that the applicant has executed and recorded against the parcel(s) governed by this permit a deed restriction, in a form and content acceptable to the Executive Director: (1) indicating that, pursuant to this permit, the California Coastal Commission has authorized development on the subject property, subject to terms and conditions that restrict the use and enjoyment of that property; and (2) imposing the Special Conditions of this permit as covenants, conditions and restrictions on the use and enjoyment of the Property. The deed restriction shall include a legal description of the entire parcel or parcels governed by this permit. The deed restriction shall also indicate that, in the event of an extinguishment or termination of the deed restriction for any reason, the terms and conditions of this permit shall continue to restrict the use and enjoyment of the subject property so long as either this permit or the development it authorizes, or any part, modification, or amendment thereof, remains in existence on or with respect to the subject property.

4. Construction Responsibilities and Debris Removal

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

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

5. Provisional Term for Shoreline Protective Structure

Coastal Development Permit No. 4-02-166, in full or in part, authorizes the construction of the shoreline protective device generally depicted in attached Exhibits 3, 17 - 19. By acceptance of this permit, the applicant acknowledges that the purpose of the subject shoreline protective device is solely to protect the existing structures located on site, in their present condition and locations, including the sewage disposal system. If any of

the activities listed below are undertaken, the shoreline protective device authorized by this permit shall be removed unless the Coastal Commission issues a new coastal development permit authorizing the shoreline protective device, or unless the Executive Director determines that a new permit is unnecessary because such activities are minor in nature or otherwise do not affect the need for the shoreline protective device.

1. Changes to the foundation of any structure on the subject site including repairs or replacement of support piles or caissons;
2. Upgrade, relocation or abandonment of the septic disposal system;
3. Remodel of the primary structure or residence on the subject site involving the demolition of more than 50 percent of exterior walls or an addition to the primary structure or residence resulting in an increase of more than 10 percent of structural size;
4. Construction of a new structure on the subject parcel;
5. Relocation and/or complete removal of any or all of the structures existing on site shown on the exhibit required pursuant to paragraph above.

The applicant or successor-in-interest shall contact the Executive Director if any of the above activities are contemplated so that a determination as to the necessity of applying for a new permit can be made. If an application for a new coastal development permit is required pursuant to this condition, and the Commission determines that the proposed project is not consistent with the Coastal Act, the Commission may deny the permit application and may take any other action authorized by law.

6. Sign Restriction

No signs shall be posted on the property subject to this permit, except for those on the landward face or elevation of the structure identifying the occupant/owners' name and street address number, unless they are authorized by a coastal development permit or an amendment to this coastal development permit.

7. Exterior Lighting Restriction

By acceptance of this permit, the applicant acknowledges and agrees only exterior, night lighting that is allowed on the site is the following:

1) The minimum necessary to light walkways used for entry and exit to the structures, including parking areas, on the site. This lighting shall be limited to fixtures that are directed downward, and use bulbs that do not exceed 60 watts, or the equivalent, unless a higher wattage is authorized by the Executive Director.

2) Security lighting attached to the residence that is controlled by motion detectors and is limited to 60 watts, or the equivalent.

3) The minimum lighting necessary for safe vehicular use of the driveway. The lighting shall be limited to 60 watts, or the equivalent.

No light source will be directly visible from public viewing areas such as Malibu Road or the beach and ocean area and that no lighting around the perimeter of the site, the beach area or for aesthetic purposes shall be allowed.

8. Erosion Control, Drainage and Polluted Runoff Control Plans

Prior to the Issuance of the Coastal Development Permit, the applicant shall submit for the review and approval of the Executive Director; a) **a *Local Storm Water Pollution Prevention (SWPPP) Plan*** to control erosion and contain polluted runoff during the construction phase of the project; and b) **a *Water Quality Mitigation Plan (WQMP)*** for the management and treatment of post-construction storm water and polluted runoff. The plans shall be certified by a California Registered Civil Engineer or Licensed Architect and approved by the City's Department of Public Works, and include the information and measures outlined below.

a) ***Local Storm Water Pollution Prevention Plan***, for the construction phase of the project shall include at a minimum the following:

- Property limits, prior-to-grading contours, and details of terrain and area drainage
- Locations of any buildings or structures on the property where the work is to be performed and the location of any building or structures of adjacent owners that are within 15 ft of the property or that may be affected by the proposed grading operations
- Locations and cross sections of all proposed temporary and permanent cut-and-fill slopes, retaining structures, buttresses, etc., that will result in an alteration to existing site topography (identify benches, surface/subsurface drainage, etc.)
- Area (square feet) and volume (cubic yards) of all grading (identify cut, fill, import, export volumes separately), and the locations where sediment will be stockpiled or disposed
- Elevation of finished contours to be achieved by the grading, proposed drainage channels, and related construction.
- Details pertaining to the protection of existing vegetation from damage from construction equipment, for example: (a) grading areas should be minimized to protect vegetation; (b) areas with sensitive or endangered species should be demarcated and fenced off; and (c) native trees that are located close to the construction site should be protected by wrapping trunks with protective materials, avoiding placing fill of any type against the base of trunks, and avoiding an increase in soil depth at the feeding zone or drip line of the retained trees.
- Information on potential flow paths where erosion may occur during construction
- Proposed erosion and sediment prevention and control BMPs, both structural and non-structural, for implementation during construction, such as:
    - Stabilize disturbed areas with vegetation, mulch, geotextiles, or similar method.

- Trap sediment on site using fiber rolls, silt fencing, sediment basin, or similar method.
- Ensure vehicles on site are parked on areas free from mud; monitor site entrance for mud tracked off-site.
- Prevent blowing dust from exposed soils.

- Proposed BMPs to provide adequate sanitary and waste disposal facilities and prevent contamination of runoff by construction chemicals and materials, such as:
  - Control the storage, application and disposal of pesticides, petroleum and other construction and chemical materials.
  - Site washout areas more than fifty feet from a storm drain, open ditch or surface water and ensure that runoff flows from such activities do not enter receiving water bodies.
  - Provide sanitary facilities for construction workers.
  - Provide adequate disposal facilities for solid waste produced during construction and recycle where possible.

b) ***Water Quality Management Plan***, for the management and treatment of post construction storm water and polluted runoff shall at a minimum include the following:

- Site design, source control and treatment control BMPs that will be implemented to minimize or prevent post-construction polluted runoff (see 17.5.1 of the Malibu LIP)
- Pre-development peak runoff rate and average volume
- Drainage improvements (e.g., locations of diversions/conveyances for upstream runoff)
- Potential flow paths where erosion may occur after construction
- Expected post-development peak runoff rate and average volume from the site with all proposed non-structural and structural BMPs
- Methods to accommodate onsite percolation, revegetation of disturbed portions of the site, address onsite and/or offsite impacts and construction of any necessary improvements
- Measures to treat, infiltrate, or filter runoff from impervious surfaces (e.g., roads, driveways, parking structures, building pads, roofs, patios, etc.) on the subject parcel(s) and to discharge the runoff in a manner that avoids erosion, gullying on or downslope of the subject parcel, ponding on building pads, discharge of pollutants (e.g., oil, heavy metals, toxics) to coastal waters, or other potentially adverse impacts. Such measures may include, but are not limited to, the use of structures (alone or in combination) such as on-site desilting basins, detention ponds, dry wells, biofilters, etc.
- A long-term plan and schedule for the monitoring and maintenance of all drainage-control devices. All structural BMPs shall be inspected, cleaned, and repaired when necessary prior to September 30th of each year. Owners of these devices will be responsible for insuring that they continue to function properly and additional inspections should occur after storms as needed throughout the rainy season. Repairs, modifications, installation of additional BMPs, repairs of eroded area, as needed, should be carried out prior to the next rainy season.

- Post-construction Treatment Control BMPs (or suites of BMPs) shall be designed to treat, infiltrate, or filter the amount of stormwater runoff produced by all storms up to and including the 85th percentile, 24-hour storm event for volume-based BMPs and/or the 85th percentile, 1-hour storm event (with an appropriate safety factor, i.e. 2 or greater) for flow-based BMPs.

9. On-Site Wastewater Treatment System Requirements

Prior to the Issuance of the Coastal Development Permit, the applicant shall submit for the review and approval of the Executive Director a report and plans verifying that the proposed OSTS complies with the policies and provisions in the Malibu LCP pertaining to the siting, design, installation, operation and maintenance requirements for OSTSs. The report and plans shall be prepared by a qualified professional and approved by the City's Environmental Health Department, and comply with sections 18.4, 18.7 and 18.9 of the Malibu LIP.

Prior to the receipt of the certificate of occupancy for the addition to the residence, the applicant shall submit for the review and approval of the Executive Director verification that they have obtained a valid Standard Operating Permit from the City for the proposed OSTS. This permit shall comply with all of the operation, maintenance and monitoring provisions applicable to OSTSs contained in policies 18.4 and 18.9 of the Malibu LIP.

10. Revised Plans

Prior to issuance of the coastal development permit, the applicant shall submit, for the review and approval of the Executive Director, revised project plans which show that:

As consistent with Special Condition Eleven (11), proposed development (including a portion of the proposed residence, decks, fireplace, walls, trash enclosure) located within the continuous view corridor, as designated in Exhibit 3 on either the west side or east side of the subject parcel, is deleted to create a continuous 20% street frontage view corridor (Alternative 1 or 2 View Corridor, a total of 13 feet wide) completely open areas without structures, decks, fireplaces, walls, trash enclosures or roof overhangs. Fencing consisting of visually permeable designs and materials (e.g. wrought iron or non-tinted glass material) and low-lying (maximum two feet high from finished grade) vegetation may be allowed on the revised plans and or with a future coastal development permit or amendment. No vegetation is proposed by the applicant in this application.

11. Public View Corridor

By acceptance of this permit, the applicant acknowledges and agrees that:

a. No less than 20% of the lineal street frontage of the project site shall be maintained as a continuous public view corridor from Malibu Road to the Pacific Ocean.

b. As consistent with Special Condition Ten (10), no structures, vegetation, or obstacles which result in an obstruction of public views of the ocean from Pacific Coast Highway shall be permitted within the continuous public view corridor on either the west or east side of the proposed building as shown on Exhibit 3.

c. Fencing within the continuous public view corridor shall be limited to visually permeable designs and materials (e.g. wrought iron or non-tinted glass materials).

d. Vegetation within the continuous public view corridor shall be limited and maintained to be low-lying vegetation of no more than 2 ft. in height above finished grade.

IV. Findings and Declarations

The Commission hereby finds and declares:

A. Project Description and Background

The applicant is proposing to demolish retaining wall, and construct 2-story 4,871 sq.ft. single-family home, 742 sq.ft. garages, one two car the second a one car garage, bulkhead retaining wall, concrete piles, alternative septic system, below-grade slide retention structure, 291 cu.yds. of grading (25 cubic yards of cut and 266 cubic yards of fill, 242 cubic yards of imported fill), and no landscaping. (Exhibits 1-19).

The subject site is a vacant parcel on the south side of Malibu Road with a retaining wall, the remnant of a residence that burned in either 1968 or 1971 according to the information provided in the submitted Engineering Geologic report. The parcel located on Amarillo Beach includes a narrow bluff at the 24-foot above sea level along the shoulder of Malibu Road. The sandy beach is located at between the 8 to 12 feet above sea level below the bluff. The slope on site descends to the south at a gradient of 1:1 from Malibu Road. The site is located east of Malibu Bluff State Park Recreation Area and west of Malibu Colony Plaza.

The subject parcel includes a public access dedication of sandy beach fifteen feet landward from the mean high tideline across the width of the parcel, recorded in 1976 (Exhibits 20 and 21). Although the applicant is not proposing any landscaping on the site, the applicant has provided a final fuel modification plan approval by the Los Angeles County Fire Department.

On September 13, 2002, the Commission adopted the Malibu Local Coastal Program (LCP). The subject permit application was filed prior to the date the LCP was adopted and therefore remains under the jurisdiction of the Commission. Prior to the adoption of the LCP the standard of review for permit applications in Malibu were the chapter three policies Coastal Act. After the adoption of the LCP the standard of review for permit applications is the LCP.

B. Hazards and Geologic Stability

The proposed development is located on a beachfront parcel in Malibu, an area generally considered to be subject to an unusually high amount of natural hazards. Geologic hazards common to the Malibu include landslides, erosion, and flooding. In addition, fire is an inherent threat to the indigenous chaparral community of the coastal mountains. Wild fires often denude hillsides in the Santa Monica Mountains of all existing vegetation, thereby contributing to an increased potential for erosion and landslides on property.

The Malibu Local Coastal Program (LCP) contains the following development policies related to hazards and bluff top development that are applicable to the proposed development:

Section 30253 of the Coastal Act, which is incorporated as part of the Malibu LCP, states in pertinent part that new development shall:

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

In addition, the following LCP policies are applicable in this case:

> ***4.2. All new development shall be sized, designed and sited to minimize risks to life and property from geologic, flood, and fire hazard.***
>
> ***4.4. On ancient landslides, unstable slopes and other geologic hazard areas, new development shall only be permitted where an adequate factor of safety can be provided, consistent with the applicable provisions of Chapter 9 of the certified Local Implementation Plan.***
>
> ***4.5. Applications for new development, where applicable, shall include a geologic/soils/geotechnical study that identifies any geologic hazards affecting the proposed project site, any necessary mitigation measures, and contains a statement that the project site is suitable for the proposed development and that the development will be safe from geologic hazard. Such reports shall be signed by a licensed Certified Engineering Geologist (CEG) or Geotechnical Engineer (GE) and subject to review and approval by the City Geologist.***
>
> ***4.10. New development shall provide adequate drainage and erosion control facilities that convey site drainage in a non-erosive manner in order to minimize hazards resulting from increased runoff, erosion and other hydrologic impacts to streams.***
>
> ***4.11 New development involving a structure dependent on a wastewater disposal system shall utilize secondary treatment, at a minimum, and evapotranspiration waste disposal systems or other innovative measures, where feasible.***
>
> ***4.22 Siting and design of new shoreline development and shoreline protective devices shall take into account anticipated future changes in sea level. In particular, an***

acceleration of the historic rate of sea level rise shall be considered. Development shall be set back a sufficient distance landward and elevated to a sufficient foundation height to eliminate or minimize to the maximum extent feasible hazards associated with anticipated sea level rise over the expected 100 year economic life of the structure.

4.23 New development on a beach or oceanfront bluff shall be sited outside areas subject to hazards (beach or bluff erosion, inundation, wave uprush) at any time during the full projected 100-year economic life of the development. If complete avoidance of hazard areas is not feasible, all new beach or oceanfront bluff development shall be elevated above the base Flood Elevation (as defined by FEMA) and setback as far landward as possible. All development shall be setback a minimum of 10 feet landward of the most landward surveyed mean high tide line. Whichever setback method is most restrictive shall apply. Development plans shall consider hazards currently affecting the property as well as hazards that can be anticipated over the life of the structure.

4.24 All proposed development on a beach or along the shoreline, including a shoreline protection structure, 1) must be reviewed and evaluated in writing by the State Lands Commission and 2) may not be permitted if the State Lands Commission determines that the proposed development is located on public tidelands or would adversely impact tidelands unless State Lands Commission approval is given in writing.

4.26 Development on or near sandy beach or bluffs, including the construction of a shoreline protection device, shall include measures to insure that:

- ***No stockpiling of dirt or construction materials shall occur on the beach;***
- ***All grading shall be properly covered and sandbags and/or ditches shall be used to prevent runoff and siltation;***
- ***Measures to control erosion shall be implemented at the end of each day's work;***
- ***No machinery shall be allowed in the intertidal zone at any time to the extent feasible;***
- ***All construction debris shall be removed from the beach.***

The project site is a rectangular beachfront parcel that includes a retaining wall remnant of a former residence burned in a fire. The applicant proposes to demolish this retaining wall and construct a 2-story 4,871 sq.ft. single-family home, 742 sq.ft. garages, bulkhead retaining wall, concrete piles, alternative septic system, below-grade slide retention structure, 291 cu.yds. of grading, and no landscaping. The subject parcel is located on Amarillo Beach east of Malibu Bluffs State Park.

By nature, coastal bluffs are subject to erosion from sheet flow across the top of the bluff and from wave action at the base of the bluff. According to the applicant's geology reports, the site is located in an area underlain by landslide debris and a landslide is located across Malibu Road to the north and east and another landslide is located about 150 feet to the west also across Malibu Road which are considered marginally stable to unstable.

The Malibu LCP requires that new development be sited and designed to minimize risks to life and property from geologic, flood, and fire hazard. In addition, the LCP requires a geologic/soils/geotechnical study that identifies any geologic hazards affecting the proposed project site, any necessary mitigation measures, and contains a statement

that the project site is suitable for the proposed development and that the development will be safe from geologic hazard. The Update Geotechnical Engineering Investigation Report, for the subject site, by Coastline Geotechnical Consultants, Inc dated May 16, 2001 states:

> ***Based on the findings summarized in this report, and provided the recommendations of this report are followed, and the designs, grading, and construction are properly and adequately executed, it is our opinion that construction within the building site would not be subject to geotechnical hazards from landslides, slippage, or excessive settlement. Further, it is our opinion that the proposed building and anticipated site grading would not adversely effect the stability of the site, or adjacent properties, with the same provisos listed above.***

As such, the Commission notes that the proposed project will serve to ensure general geologic and structural integrity on site. However, the Commission also notes that the submitted Update Engineering Geological Report by Mountain Geologic, Inc. dated April 23, 2001; Update Geotechnical Engineering Investigation Report, by Coastline Geotechnical Consultants, dated May 16, 2001; Wave Uprush Study by Pacific Engineering Group, dated January 18, 2000 includes a number of recommendations to ensure the geologic stability, geotechnical safety and foundation/structure safety relative to wave uprush on the site. To ensure that the recommendations of the geologic and geotechnical engineering consultants are incorporated into all new development, **Special Condition No. One (1)** requires the applicant to submit project plans certified by the consulting engineer, geologist, and geotechnical engineer as conforming to all geologic, engineering and geotechnical recommendations, as well as any new or additional recommendations by the consulting engineer, geologist and geotechnical engineer to ensure structural and site stability. The final plans approved by the consultants shall be in substantial conformance with the plans approved by the Commission relative to construction, foundations, grading, sewage disposal and drainage. Any substantial changes to the proposed development approved by the Commission which may be recommended by the consultants shall require an amendment to the permit or a new coastal permit.

As discussed above, the Commission notes that the applicant's engineering and geology consultants have indicated that the proposed development will serve to ensure relative geologic and structural stability on the subject site. The Update Engineering Geological Report by Mountain Geologic, Inc. dated April 23, 2001 and Update Geotechnical Engineering Investigation Report, by Coastline Geotechnical Consultants, dated May 16, 2001 indicate there are two landslides located landward of the subject site that are considered marginally stable to unstable. As a result, the Commission notes that there remains some inherent risk in building on sites located on an identified active landslide.

Further, the proposed development is located on a beachfront lot in the City of Malibu and will be subject to some inherent potential hazards. The Commission notes that the Malibu coast has historically been subject to substantial damage as the result of storm and flood occurrences--most recently, and perhaps most dramatically, during the 1998 severe El Nino winter storm season. The subject site is clearly susceptible to flooding

and/or wave damage from storm waves, storm surges and high tides. Past occurrences have caused property damage resulting in public costs through emergency responses and low-interest, publicly subsidized reconstruction loans in the millions of dollars in Malibu area alone from last year's storms.

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

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

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

In addition, the Commission notes vegetation in the coastal areas of the Santa Monica Mountains consists mostly of coastal sage scrub and chaparral. Many plant species common to these communities produce and store terpenes, which are highly flammable substances (Mooney in Barbour, Terrestrial Vegetation of California, 1988). Chaparral and sage scrub communities have evolved in concert with, and continue to produce the potential for frequent wild fires. The typical warm, dry summer conditions of the Mediterranean climate combine with the natural characteristics of the native vegetation to pose a risk of wild fire damage to development that cannot be completely avoided or mitigated. Due to the fact that the proposed project is located in an area subject to an extraordinary potential for damage or destruction from wild fire, the Commission can only approve the project if the applicants assumes the liability from these associated risks.

The Commission finds that due to the possibility of liquefaction, storm waves, surges, erosion, landslide, flooding, and wildfire, the applicant shall assume these risks as conditions of approval. Because this risk of harm cannot be completely eliminated, the Commission requires the applicant to waive any claim of liability against the Commission for damage to life or property that may occur as a result of the permitted

development. The applicant's assumption of risk, as required by **Special Condition No. Two,** when executed and recorded on the property deed as required by **Special Condition No. Three** which exist on the site, and that may adversely affect the stability or safety of the proposed development.

In addition, the Commission notes that the proposed development includes the demolition of an existing retaining wall and the construction of a new residence and bulkhead on the beach. The Commission further notes that construction/demolition activity on a sandy beach, such as the proposed project, will result in the potential generation of debris and or presence of equipment and materials that could be subject to tidal action. The presence of construction equipment, building materials, and excavated materials on the subject site could pose hazards to beachgoers or swimmers if construction site materials were discharged into the marine environment or left inappropriately/unsafely exposed on the project site. Further, such discharge to the marine environment would result in adverse effects to offshore habitat from increased turbidity caused by erosion and siltation of coastal waters. To ensure adverse effects to the marine environment are minimized, **Special Condition No. Four,** requires the applicant to ensure that stockpiling of dirt or materials shall not occur on the beach, that no machinery will be allowed in the intertidal zone at any time, all debris resulting from the construction period is promptly removed from the sandy beach area, and that sand bags and/or ditches shall be used to prevent runoff and siltation. Furthermore, to ensure that the demolition of the retaining wall and any construction material is disposed of off site so as not to contribute to the loss of any materials into the ocean, the Commission finds it necessary to require the applicant to dispose of the material at a appropriate disposal site or to a site that has been approved to accept fill material, as specified in **Special Condition No. Four.**

Therefore, for the reasons discussed above, the Commission finds that the proposed project, as conditioned, is consistent with the applicable policies of the Malibu LCP.

C. Shoreline Processes, Shoreline Protective Devices and Seaward Encroachment

The project site is a rectangular beachfront parcel that includes a retaining wall remnant of a former residence burned in a fire. The applicant proposes to demolish this retaining wall and construct a 2-story 4,871 sq.ft. single-family home, 742 sq.ft. garages, bulkhead retaining wall, concrete piles, alternative septic system, below-grade slide retention structure, 291 cu.yds. of grading, and no landscaping. The subject parcel is located on Amarillo Beach east of Malibu Bluffs State Park. The proposed project includes the construction of a 58-foot long wooden bulkhead supported by concrete caisson piles and two 32-foot long return walls all with a maximum height of approximately 18 feet above mean sea level. Along Malibu Road right of way, a below grade slide retention structure consisting of 12 concrete caisson piles will also be constructed. This structure will also support the road fill along the shoulder of Malibu Road. The seaward portion of the proposed bulkhead will be located approximately 32 feet seaward of the Malibu Road right-of-way/property line. The proposed bulkhead will be located entirely beneath the proposed residence from about 31 to 37 feet landward of the proposed deck dripline (Exhibits 3 and 17).

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

As described in the discussion below, there is evidence that the proposed development along this section of Amarillo Beach will require a shoreline protective device and that such development has the potential to adversely impact natural shoreline processes. Therefore, it is necessary to review the proposed project for its consistency with the City of Malibu LCP, Sections 30235, 30250(a), and 30253 of the Coastal Act and with past Commission action.

Sections 30235, 30250(a), and 30253 of the Coastal Act, which is incorporated as part of the Malibu LCP, states in pertinent part that:

Section 30235 of the Coastal Act states:

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

Section 30253 of the Coastal Act states 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 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.***

In addition, the following LCP policies are applicable in this case:

4.30 In existing developed areas where new beachfront development, excluding a shoreline protective device, is found to be infill (see definition) and is otherwise consistent with the policies of the LCP, a new residential structure shall not extend seaward of a stringline drawn between the nearest adjacent corners of the enclosed area of the nearest existing residential structures on either side of the subject lot. Similarly, a proposed new deck, patio, or other accessory structure shall not extend seaward of a stringline drawn between the nearest adjacent corners of the nearest deck, patio or accessory structure on either side. All infill development shall be setback a minimum of 10 feet landward from the most landward surveyed mean high tide line on the parcel. Whichever setback method is most restrictive shall apply. The stringline method shall apply only to infill development and where it will not result in development which would require a shoreline protection structure at any time during the life of the project.

4.31 "Infill Development" shall apply to a situation where construction of a single-family dwelling and/or a duplex in limited situations on a vacant lot or the demolition of an existing residential dwelling and construction of a new dwelling is proposed in an existing, geographically definable residential community which is largely developed or built out with similar structures. When applied to beachfront development this situation consists of an existing linear community of beach fronting residences where the vast majority of lots are developed with residential dwellings and relatively few vacant lots exist. Infill development can occur only in instances where roads and other services are already existing and available within the developed community or stretch of beach. Infill development shall not apply to the construction of a shoreline protection device.

4.33 All new beachfront and blufftop development shall be sized, sited and designed to minimize risk from wave run-up, flooding and beach and bluff erosion hazards without requiring a shoreline protection structure at any time during the life of the development.

4.35 All new beachfront development shall be required to utilize a foundation system adequate to protect the structure from wave and erosion hazard without necessitating the construction of a shoreline protection structure.

4.36 New development on or along the shoreline or a coastal bluff shall include, at a minimum, the use of secondary treatment waste disposal systems and shall site these new systems as far landward as possible in order to avoid the need for protective devices to the maximum extent feasible.

4.37 Shoreline and bluff protection structures shall not be permitted to protect new development, except when necessary to protect a new septic system and there is no feasible alternative that would allow residential development on the parcel. Septic systems shall be located as far landward as feasible. Shoreline and bluff protection structures may be permitted to protect existing structures that were legally constructed prior to the effective date of the Coastal Act, or that were permitted prior to certification of the LCP provided that the CDP did not contain a waiver of the right to a future shoreline or bluff protection structure and only when it can be demonstrated that said existing structures are at risk from identified hazards, that the proposed protective device is the least environmentally damaging alternative and is designed to eliminate or mitigate adverse impacts to local shoreline sand supply. Alternatives analysis shall include the relocation of existing development landward as well as the removal of portions of existing development. "Existing development" for

purposes of this policy shall consist only of a principle structure, e.g. residential dwelling, required garage, or second residential unit, and shall not include accessory or ancillary structures such as decks, patios, pools, tennis courts, cabanas, stairs, landscaping etc.

4.39 All shoreline protection structures shall be sited as far landward as feasible regardless of the location of protective devices on adjacent lots. In no circumstance shall a shoreline protection structure be permitted to be located further seaward than a stringline drawn between the nearest adjacent corners of protection structures on adjacent lots. A stringline shall be utilized only when such development is found to be infill and when it is demonstrated that locating the shoreline protection structure further landward is not feasible.

4.42 As a condition of approval of development on a beach or shoreline which is subject to wave action, erosion, flooding, landslides, or other hazards associated with development on a beach or bluff, the property owner shall be required to execute and record a deed restriction which acknowledges and assumes said risks and waives any future claims of damage or liability against the permitting agency and agrees to indemnify the permitting agency against any liability, claims, damages or expenses arising from any injury or damage due to such hazards.

4.44 As a condition of approval of new development on a vacant beachfront or blufftop lot, or where demolition and rebuilding is proposed, where geologic or engineering evaluations conclude that the development can be sited and designed to not require a shoreline protection structure as part of the proposed development or at any time during the life of the development, the property owner shall be required to record a deed restriction against the property that ensures that no shoreline protection structure shall be proposed or constructed to protect the development approved and which expressly waives any future right to construct such devices that may exist pursuant to Public Resources Code Section 30235.

To accurately determine what adverse effects to coastal processes may result from the proposed project, it is necessary to analyze the proposed project in relation to characteristics of the project site shoreline, location of the development on the beach, and wave action.

a. Site Shoreline Characteristics

The proposed project site is located on Amarillo Beach in the City of Malibu. Amarillo Beach is characterized as a relatively narrow beach that has been developed with numerous single family residences located to the east and west of the subject site. The Malibu/Los Angeles County Coastline Reconnaissance Study by the United States Army Corp of Engineers, dated April 1994, indicates that residential development on Amarillo Beach is exposed to recurring storm damage because of the absence of a sufficiently wide protective beach. The applicant's coastal engineering consultant has indicated that Amarillo Beach is an oscillating (equilibrium) beach that experiences seasonal erosion and recovery. The Wave Uprush Study by Pacific Engineering Group dated January 18, 2000 further indicates that the beach is a stable beach that oscillates seasonally between summer and winter.

b. Stringline

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

The proposed residential structure and deck meets this stringline policy as identified in Exhibit 20. As such, the Commission finds that the proposed project will not result in the seaward encroachment of development on Amarillo Beach and will serve to minimize adverse effects to coastal processes.

c. Location of Proposed Shoreline Protective Device in Relation to the Mean High Tide Line & Wave Action

The Commission notes that many studies performed on both equilibrium and eroding beaches have concluded that loss of beach occurs on both types of beaches where a shoreline protective device exists. In order to determine the impacts of the proposed seawall on the shoreline, the location of the proposed protective device in relationship to the expected wave runup, as calculated by the location of the Mean High Tide Line, must be analyzed.

1. Mean High Tide Line

The Wave Uprush Study prepared by Pacific Engineering Group represents that based on a list of historical mean high tide lines, the most landward known measurement of the ambulatory mean high tide line on the project site was approximately 108 feet seaward of the Malibu Road right-of-way line, on December 24, 1986. The seaward most extension of the proposed development (the dripline of the deck) will be located approximately 74 feet seaward of the Malibu Road right-of-way line which is approximately 34 foot landward of this 1986 surveyed mean high tide line. Based on the submitted information, the Commission notes that the proposed development will be located landward of the mean high tide line. Furthermore, the location of the mean high tide line is ambulatory in nature. Additionally, the California State Lands Commission states in their letter dated August 5, 2002:

> ***We do not at this time have sufficient information to determine whether this project will intrude upon state sovereign lands. Development sufficient to make such a determination would be expensive and time-consuming. We do not think such an expenditure of time, effort and money is warranted in this situation, given the limited resources of this agency and the circumstances set forth above.***

Thus, the State Lands Commission does not presently assert that the proposed project involves state property.

2. Wave Uprush

The residence will be located about 34 foot landward of the 1986 surveyed mean high tide line. Further, the Wave Uprush Study prepared by Pacific Engineering Group indicates that the maximum wave uprush at the subject site will occur approximately 11 feet landward of the Malibu Road right-of-way line (landward of the proposed residence). This wave uprush analysis was based on the use of +1.0 foot storm surge and a sea level rise of +0.2 feet (50-year projection) resulting in a still water line (SWL) at the elevation of +8 feet MLLW datum." The applicant's engineering consultant has recommended that the minimum finished floor elevations for the new residence should not be lower than +24.5 feet above Mean Sea Level for the seaward portion of the residence and +25 feet above MSL for the landward 25 foot portion of the residence. The applicant has provided proposed plans incorporating these design heights for the residence (Exhibit 4).

The proposed project includes the installation of a new alternative secondary treatment septic system, which uses a MicroFast secondary treatment tank with 2,500 gallon capacity with a minimum discharge area of 420 square feet to maintain a minimum of four feet of separation above mean sea level or any groundwater. The Commission notes that the proposed septic system is located as landward as feasible. However, the seaward extent of the septic system and leachfield (located as far as 27 feet seaward of the Malibu Road right-of-way line) will still be located within the wave uprush zone and will require a shoreline protection device to ensure the stability of the system. The Commission notes that due to the geologic constraints of the site, it is not possible to construct any type of septic system that would not be subject to periodic wave action without the construction of some form of shoreline protection as wave uprush extends onto Malibu road 11 feet landward of the right of way. Therefore, the Commission notes that the proposed bulkhead is necessary to protect the proposed septic system and discharge area from wave uprush and erosion.

Based on the above discussion, the Commission finds that the proposed bulkhead is required to protect the septic system for the proposed residential development. The Commission further finds that the proposed bulkhead, which will be located as far landward as feasible, will be subject to wave action during storm and high tide events. Therefore, the following discussion is intended to evaluate the impacts of the proposed bulkhead on the beach, based on the above information which identified the specific structural design, location of the structure, and shoreline geomorphology.

d. Effects of Shoreline Protective Device on Beach

It is important to accurately calculate the potential of wave runup and wave energy to which the shoreline protection device will be subjected to from waves. Dr. Douglas Inman, renowned authority on Southern California beaches finds that, "the likely detrimental effect of the seawall on the beach can usually be determined in advance by

competent analysis." Dr. Inman further explains the importance of a seawall's design and location as it relates to predicting the degree of erosion that will be caused by the shoreline protection device. He states:

> ***While natural sand beaches respond to wave forces by changing their configuration into a form that dissipates the energy of the waves forming them, seawalls are rigid and fixed, and at best can only be designed for a single wave condition. Thus, seawalls introduce a disequilibrium that usually results in the reflection of wave energy and increased erosion seaward of the wall. The degree of erosion caused by the seawall is mostly a function of its reflectivity, which depends upon its design and location.***[1]

In past permit actions, the Commission has found that one of the most critical factors controlling the impact of a shoreline protection device on the beach is its position on the beach profile relative to the surf zone. Generally, the further seaward that a shoreline protective device is located, the more frequently and more vigorously waves will interact with it. If a shoreline protective device is in fact necessary, the best location for it is at the back of the beach, where it may provide protection from the most severe storms. In contrast, a shoreline protective device constructed too close to the mean high tide line may constantly create problems related to frontal and end scour erosion, as well as upcoast sand impoundment.

Although the precise impacts of a structure located on the beach are a continual 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 seawall. The main difference between a vertical bulkhead and rock revetment seawall is their relative physical encroachment onto the beach. It has been well documented by coastal engineers and coastal geologists that shoreline protective devices and structures, in the form of either a rock revetment or vertical bulkhead, will adversely impact the shoreline as a result of beach scour, end scour (the beach areas at the end of the seawall), retention of potential beach material behind the wall, fixing of the back beach, and interruption of alongshore 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.

1. 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 as a result of seawalls is a frequently observed occurrence. When waves impact 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 conjunction with incoming wave energy, will disturb the material at the base of the seawall and cause erosion to occur in front and down coast of the hard structure. This phenomenon

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1 Letter from Dr. Douglas Inman to California Coastal Commission staff member and senior engineer, Lesley Ewing, February 25, 1991.

has been recognized for many years and the literature on the subject acknowledges that seawalls affect the supply of beach sand.

The Wave Uprush Study prepared by Pacific Engineering Group indicates that the proposed seawall will be located seaward of the maximum wave uprush limit and will, therefore, periodically be subject to wave action. In past permit actions, the Commission has found that shoreline protective devices that are subject to wave action tend to exacerbate or increase beach erosion. The following quotation summarizes a generally accepted opinion within the discipline of coastal engineering: "Seawalls usually cause accelerated erosion of the beaches fronting them and an increase in the transport rate of sand along them."[2] In addition, experts in the field of coastal geology, who view beach processes from the perspective of geologic time, signed the following succinct statement regarding the adverse effects of shoreline protective devices:

> ***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.***[3]

The above statement, which was made in 1981 and 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 and to protect the public's access along the ocean and to the water.

The impact of seawalls as they relate to sand removal on the sandy beaches is further documented by the State of California, Department of Boating and Waterways, which stated:

> ***While seawalls may protect the upland, they do not hold or protect the beach which is the greatest asset of shorefront 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, Robert G. Dean underscored this observation more recently in 1987 in "Coastal Sediment Processes: Toward Engineering Solutions:"

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2 "Saving the American Beach: A Position Paper by Concerned Coastal Geologists," Skidaway Institute of Oceanography, March 1981, page 4.

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

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

> ***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 back beach and of the beach itself. He concludes:

> ***Seawalls inhibit erosion that naturally occurs and sustains the beach. The two most 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 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 asserts that armoring in the form of a shoreline protection device 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 the California coast, where shoreline protection devices have successfully halted the retreat of the shoreline, 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 beaches in the City of Encinitas, in San Diego County, construction of vertical seawalls along the base of the bluffs to protect existing residential development at the top of the bluffs has resulted in preventing the bluffs' contribution of sand to the beaches. This has resulted in a narrowing of those beaches.

As set forth previously, the subject site is located on Amarillo Beach, a narrow, oscillating (equilibrium) beach that experiences seasonal erosion and recovery. The applicant's coastal engineering consultant has indicated that the propose bulkhead and return walls will be acted upon by waves during storm conditions. In addition, if a seasonal eroded beach condition occurs with greater frequency due to the placement of a bulkhead and return wall on the subject site, then the subject beach would also accrete at a slower rate. The Commission notes that many studies performed on both oscillating and eroding beaches have concluded that a loss of beach occurs on both types of beaches where a shoreline protective device exists. Therefore, the Commission notes that the proposed seawall, 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.

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5 "Coastal Sediment Processes: Toward Engineering Solutions," Robert G. Dean, 1987.
6 Letter Report from Dr. Craig Everts, Moffatt and Nichol Engineers, to California Coastal Commission staff member and senior engineer, Lesley Ewing, March 14, 1994.

In addition, the impacts of potential beach scour are important relative to beach use for two primary reasons. The first reason involves public access. The proposed project is located within approximately a quarter mile downcoast or east of the nearest open public vertical coastal accessway. If the beach scours at the base of the bulkhead, even minimal scouring in front of the 58 foot long bulkhead or along either of the 32 foot long return walls will translate into a loss of beach sand available through erosion than would otherwise occur under a normal winter season if the beach were unaltered. The second impact relates to the potential turbulent ocean condition that may be created. Scour at the face of a bulkhead will result in greater interaction with the wall and, thus, make the ocean along Amarillo Beach more turbulent than it would be normally be along an unarmored beach area. Thus, the Commission has ordinarily required that shoreline protection devices be located as far landward as possible, in order to reduce adverse effects from scour and erosion. In the case of this project, the Commission notes that the applicant has located the bulkhead as far landward as feasible in order to provide protection for the proposed septic system, which has also been located as far landward as feasible, in order to minimize adverse effects from scour and erosion.

As discussed above, the Commission notes that the new bulkhead and septic system will be located as far landward as possible. However, the Commission further notes that the purpose of the shoreline protective device authorized by this permit is solely to protect the septic system on site and that no shoreline protective device is required to protect the residence authorized by this permit. If the septic system approved under this permit were replaced or abandoned, however, then the seawall approved under this permit to protect the septic system might no longer be necessary and the adverse impacts of the shoreline protective device on public access could be eliminated through its removal or by locating the shoreline protective device further landward. Additionally, any future improvements to the proposed bulkhead that might result in the seaward extension of the shoreline protection device would result in increased adverse effects to shoreline sand supply and public access.

Therefore, to ensure that the proposed project does not result in new future adverse effects to shoreline sand supply and public access and that future impacts are reduced or eliminated, **Special Condition No. Five** requires the applicant to agree that a new coastal development permit for the shoreline protective device authorized this permit shall be required if the proposed septic system is replaced or abandoned for any reason, including the installation of a new sewer system along Malibu Road, and that if a new coastal development permit for the shoreline protective device is not obtained in the event of replacement or abandonment of the septic system, then the shoreline protective device authorized by this permit shall be removed. **Special Condition No. Two** also prohibits any future repair or maintenance, enhancement, reinforcement, or any other activity affecting the shoreline protective device approved pursuant to this permit, if such activity extends the seaward footprint of the subject shoreline protective device. This will prevent adverse impacts to shoreline processes from seaward extensions of the seawall.

In addition, in past permit actions, the Commission has required that new development on a beach, including the construction of new single family residences or shoreline

protection devices, provide for lateral public access along the beach in order to mitigate adverse effects to public access from increased beach erosion. In this case, the Commission notes that the subject property includes a public access dedication extending 15 feet landward of the mean high tide recorded in 1976 (Exhibits 20 and 21). The applicant is not proposing to voluntarily dedicate a lateral public access easement that would provide for public access along the entire beach under all tidal conditions, as measured seaward from the seaward most approved structure (i.e., deck dripline, bulkhead) as shown on Exhibit 20. The Commission notes that the lateral public access easement, which is recorded on the subject property, has provided for lateral access since 1976.

In order to conclude with absolute certainty what adverse effects would result from the proposed project in relation to shoreline processes, a historical shoreline analysis based on site specific studies would be necessary. Although this level of analysis has not been submitted by the applicant, the Commission notes that because the subject property includes a public access dedication along the entire southern portion of the parcel on the sandy beach from the mean high tide line to 15 feet landward of the mean high tide line, it has not been necessary for Commission staff to engage in an extensive analysis as to whether the imposition of an offer to dedicate would be required in this case.

2. End Effects

End scour effects involve the changes to the beach profile adjacent to the shoreline protection device at either end. One of the more common end effects comes from the reflection of waves off of the shoreline protection device in such a way that they add to the wave energy which is impacting the unprotected coastal areas on either end. In addition, the Commission notes that the literature on coastal engineering repeatedly warns that unprotected properties adjacent to any shoreline protective device may experience increased erosion. Field observations have verified this concern. Although it is difficult to quantify the exact loss of material due to end effects, in a paper written by Gerald G. Kuhn of the Scripps Institute of Oceanography, it is concluded that erosion on properties adjacent to a rock seawall is intensified when wave runup is high.[7]

An extensive literature search on the interaction of seawalls and beaches was performed by Nicholas Kraus in which he found that seawalls will have effects on narrow beaches or beaches eroded by storm activity. His research indicated that the form of the erosional response to storms that occurs on beaches without seawalls which are adjacent to beaches with seawalls is manifested as more localized toe scour, with end effects of flanking and impoundment at the seawall.[8] Dr. Kraus' key conclusions were that seawalls could be accountable for retention of sediment, increased local erosion and increased end erosion. Kraus states:

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7 "Coastal Erosion along Oceanside Littoral Cell, San Diego County, California," Gerald G. Kuhn, Scripps Institute of Oceanography, 1981.

8 "Effects of Seawalls on the Beach," Nicholas Kraus, Ph.D., Journal of Coastal Research, Special Issue #4, 1988.

> ***At the present time, three mechanisms can be firmly identified by which seawalls may contribute to erosion at the coast. The most obvious is retention of sediment behind the wall which would otherwise be released to the littoral system. The second mechanism, which could increase local erosion on downdrift beaches, is for the updrift side of the wall to act as a groin and impound sand. This effect appears to be primarily theoretical rather than actualized in the field, as a wall would probably fail if isolated in the surf zone. The third mechanism is flanking i.e. increased local erosion at the ends of walls.***

In addition, preliminary results of researchers investigating the length of shoreline affected by heightened erosion adjacent to seawalls concluded that:

> ***Results to date indicate that erosion at the ends of seawalls increases as the structure length increases. It was observed in both the experimental results and the field data of Walton and Sensabaugh (1978) that the depth of excess erosion is approximately 10% of the seawall length. The laboratory data also revealed that the along-coast length of excess erosion at each end of the structure is approximately 70% of the structure length.***[9]

A more comprehensive study was performed over several years by Gary Griggs, which concluded that beach profiles at the end of a seawall are further landward than natural profiles.[10] This effect appears to extend for a distance of about six-tenths of the length of the seawall and represents both a spatial and temporal loss of beach width directly attributable to seawall construction. These end effects would be expected only when the bulkhead was exposed to wave attack. Under equilibrium or accreting beach conditions, this scour will likely eventually disappear during post-storm recovery. The Commission notes that end effect erosion may be minimized by locating a proposed shoreline protection device as far 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 notes that the proposed seawall will be located as far landward as feasible in order to minimize adverse effects to shoreline sand supply from end effects.

3. 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, protecting upland sediments from being carried to the beach by wave action, and prevention of bluff retreat. In the case of Amarillo Beach, which is located in the Malibu-Santa Monica Cell, the back of the beach is fixed at Malibu Road. One of the main sources of sediment for beaches is the bluff themselves, as well as the material that has eroded from inland sources and is carried to the beach by coastal streams. 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 that device. The net effect is documented in "Responding to Changes in Sea Level, Engineering Implications," which provides:

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9 "Laboratory and Field Investigations of the Impact of Shoreline Stabilization Structures on Adjacent Properties," W. G. McDougal, M. A. Sturtevant, and P. D. Komar, Coastal Sediments, 1987.
10 "The Interaction of Seawalls and Beaches: Seven Years of Field Monitoring, Monterey Bay, California," G. Griggs, J. Tait, and W. Corona, Shore and Beach, Vol. 62, No. 3, July 1994.

> ***A common result of sea wall and bulkhead placement along the open coastline is the loss of the 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 sea wall 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...***[11]

As explained, the proposed bulkhead and return walls will protect the secondary treatment septic system from continued loss of sediment and damage. However, the result of this protection, particularly on a narrow beach, is a loss of sediment on the sandy beach area that fronts the seawall. 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 bulkhead will have greater exposure to wave attack.

In past permit actions, the Commission has required new development on a beach, including the construction of new single family residences or shoreline protection devices, provide for lateral public access along the beach in order to mitigate adverse effects to public access from increased beach erosion. The subject property includes a lateral public access dedication providing for public access along the entire beach under all tidal conditions as measured landward 15 feet from the mean high tideline, as illustrated on Exhibit 20.

As stated previously, in order to conclude with absolute certainty what adverse effects would result from the proposed project in relation to shoreline processes, a historical shoreline analysis based on site specific studies would be necessary. Although this level of analysis has not been submitted by the applicant, the Commission notes that because the subject property includes a lateral public access dedication providing for public access along the entire beach under all tidal conditions as measured landward from the mean high tideline, it has not been necessary for Commission staff to engage in an extensive analysis as to whether the imposition of an offer to dedicate would be required here absent the applicant's proposal.

e. Past Commission Actions on Residential Shoreline Development

Many portions of the Malibu coastline are intensely developed with single family residences. The eastern portion of the Malibu coastline, including Las Tunas, Big Rock, La Costa and Carbon beaches form an almost solid wall of residential development along a five mile stretch of the shoreline. This residential development extends over the sandy and rocky beach in many areas and most of the residences have shoreline protective devices such as rock revetments and concrete or timber seawalls. This residential development and their associated protective devices prevent access to the coast, obscure the views to the beach and water from Pacific Coast Highway, interrupt shoreline processes, and impact the fragile biological resources in these areas.

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

Given Malibu's close proximity to the Los Angeles metropolitan area, it is understandable why the Malibu coastline has experienced such intensive development of its coastline over the past 50 years. The vast majority of this development took place prior to the passage of Proposition 20, which established the Coastal Commission and the Coastal Act of 1976. As stated previously, Section 30235 of the Coastal requires the Commission to approve construction of protective devices if the device serves to protect coastal dependent uses, or to protect existing structures or public beaches in danger from erosion. The alternative septic system is necessary to support the existing and proposed residential development described above and requires some type of shoreline protective device in order to be developed, however. Therefore, it is safe to assume under this policy and the other resource protection policies of the Coastal Act, that this type of development along Malibu's coastline would either not have been approved or would be developed in a much different configuration or design than it is today.

f. Infill development

The Commission has previously permitted a number of new residential developments with protective devices on the Malibu coast, but only when that development was considered infill development. The developed portions of the Malibu coastline include a number of vacant parcels between existing structures. Typically, there are no more than one or two vacant lots between existing structures.

The term "infill development," as applied by the Commission in past permit decisions, refers to a situation where the construction of a single family residence (and in limited situations a duplex) on a vacant lot or the demolition of an existing single family residence and construction of a new single family residence is proposed in an existing geographically definable residential community which is already largely developed or built out with similar structures. When applied to beachfront development, this situation typically is applied to an existing linear community of beachfront residences where the majority of lots are developed with single family residences and relatively few vacant lots exist. In other words, within the linear stretch of developed beachfront lots, there is an occasional undeveloped lot or two that one may expect to be developed in a similar fashion. By nature of this description, an infill development situation can occur only in instances where roads and other services are already existing and available within the developed community or stretch of beach. Typically, the term infill development would not be applied to a large or long stretch of undeveloped beach (i.e., several lots or a large lot that is not similar in size and character to developed lots in the community or areas which do not contain existing roads and infrastructure).

Another characteristic of largely developed beachfront communities is that many, but not all, existing single family residences have some form of shoreline protective device. In Malibu, all beachfront homes utilize a septic system which, when determined to be subject to wave uprush by a coastal engineer, are required to have a shoreline protective device to protect the system. This requirement of assessing the wave uprush applies to all new development, extensive remodels, reconstruction, as well as any changes to an existing septic system or proposals for a new septic system.

In infill development situations only, as described above, the Commission has found in past permit actions in Malibu that, if it is consistent with Section 30253 of the Coastal Act, seawalls, revetments, or other types of shoreline protective devices can be permitted to protect existing structures or new structures which constitute infill development and when designed and engineered to eliminate or mitigate adverse impacts on the shoreline. The Commission has also found, in past permit actions in Malibu, that in beach areas largely committed to residential development having shoreline protective devices, the construction of shoreline protective devices should tie into adjacent seawalls where appropriate or possible.

The Commission recognized that the infilling of residential development between existing structures would not result in significant adverse effects to coastal resources within these existing developed shoreline areas. The Commission has approved infill development through permit actions on beachfront lots in Malibu. The Commission has found that infilling these gaps would not cause significant further impacts on shoreline processes or adverse impacts on other coastal resources given the prevailing development pattern along these sections of the Malibu coast.

The Commission notes that the area surrounding the subject site is characterized as a substantially developed beach. In the case of the proposed development, the remodel of existing structures, new septic system and new seawall tying into adjacent protective structures can clearly be considered as infill development within an existing developed area.

g. Conclusion

In past permit actions, the Commission has approved the construction of shoreline protection devices in conjunction with new development only when: (1) such development is consistent with the Commission's treatment of infill development, and (2) the shoreline protection device is required to protect a septic system (no feasible alternatives exist), and (3) the shoreline protection device is located as far landward as possible in order to minimize any adverse effects to shoreline sand supply and public access.

The Commission notes that the proposed project constitutes infill development as previously defined in the preceding sections. In addition, the applicant's engineering consultant has indicated that although the proposed residence will not require a shoreline protection device to ensure stability, a bulkhead and return wall will be required to protect the proposed septic system. The Commission notes that the proposed alternative treatment septic system has been designed to minimize both the size and seaward extent of the system. However, the seaward extent of the septic system and leachfield, located approximately 27 feet seaward of the Malibu Road right-of-way line, will still be located within the wave uprush limit and will require a shoreline protection device to ensure the stability of the system. Further, the Commission notes that it is infeasible to construct any type of septic system that would not be subject to periodic wave action without the construction of some form of shoreline protection.

Therefore, the Commission notes that the proposed bulkhead and return walls are necessary to protect the proposed septic system and leachfield from wave uprush and erosion as indicated in the Wave Uprush Study.

As discussed above, the Commission notes that the new bulkhead and septic system will be located as far landward as possible. However, the Commission further notes that the purpose of the bulkhead and return walls authorized by this permit is solely to protect the septic system on the subject site and that no shoreline protective device is required to protect the residence authorized by this permit. However, if the septic system approved under this permit were replaced or abandoned, then the bulkhead and return walls approved under this permit to protect the septic system might no longer be necessary and the adverse impacts of the shoreline protective device on public access could be eliminated through its removal or by locating it further landward. Additionally, any future improvements to the proposed bulkhead that might result in the seaward extension of the shoreline protection device would result in increased adverse effects to shoreline sand supply and public access.

Therefore, to ensure that the proposed project does not result in new future adverse effects on shoreline sand supply and public access and that future impacts are reduced or eliminated, **Special Condition No. Five** requires the applicant to agree that a new coastal development permit for the shoreline protective device authorized this permit shall be required if the proposed septic system is replaced or abandoned for any reason, including the installation of a new sewer system along Malibu Road, and that if a new coastal development permit for the shoreline protective device is not obtained in the event of replacement or abandonment of the septic system, then the shoreline protective device authorized by this permit shall be removed. Likewise, **Special Condition No. Two** prohibits any future repair or maintenance, enhancement, reinforcement, or any other activity affecting the shoreline protective device approved pursuant to this permit, if such activity extends the seaward footprint of the subject shoreline protective device.

As stated previously, the proposed project includes the removal of the existing retaining wall located on the subject site. Therefore, in addition, in order to ensure that the existing retaining wall and any construction debris are removed as proposed by the applicant in a timely manner, **Special Condition No. Four** requires the applicant to provide evidence of the disposal site and properly dispose of this material at that site. If the disposal site is located within the Coastal Zone, a coastal permit is required for the disposal.

Therefore, the Commission finds that the proposed project, as conditioned, is consistent with City of Malibu LCP.

D. Public Access and Recreation

The Malibu Local Coastal Program (LCP) mandates the provision of maximum public access and recreational opportunities along the coast. The Malibu LCP incorporates

Sections 30210, 30211, 30212, and 30220 of the Coastal Act applicable to new development along the beach.

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.***

Coastal Act Section 30211 states:

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

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

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

Section 30220 of the Coastal Act states:

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

The Malibu LCP contains the following development policies related to public access and recreation that are applicable to the proposed development:

2.5 ***New development shall be sited and designed to minimize impacts to public access and recreation along the shoreline and trails. If there is no feasible alternative that can eliminate or avoid all access impacts, then the alternative that would result in the least significant adverse impact shall be required. Impacts may be mitigated through the dedication of an access or trail easement where the project site encompasses an LCP mapped access or trail alignment, where the City, County, State, or other public agency has identified a trail used by the public, or where there is substantial evidence that prescriptive rights exist. Mitigation measures required for impacts to public access and recreational opportunities shall be implemented prior to or concurrent with construction of the approved development.***

2.40 ***For any project where the LCP requires an offer to dedicate an easement for a trail or for public beach access, a grant of easement may be recorded instead of an offer to dedicate***

an easement, if a government agency or private association is willing to accept the grant of easement and is willing to operate and maintain the trail or public beach accessway.

2.41 For all offers to dedicate an easement that are required as conditions of Coastal Development Permits approved by the City, the City has the authority to approve a private association that seeks to accept the offer. Any government agency may accept an offer to dedicate an easement if the agency is willing to operate and maintain the easement. The City shall approve any private association that submits a management plan that indicates that the association will open, operate, and maintain the easement in accordance with terms of the recorded offer to dedicate the easement.

2.63 Consistent with the policies below, maximum public access from the nearest public roadway to the shoreline and along the shoreline shall be provided in new development. Exceptions may occur only where (1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources; (2) adequate access exists nearby, or; (3) agriculture would be adversely affected. Such access can be lateral and/or vertical. Lateral access is defined as an accessway that provides for public access and use along the shoreline. Vertical access is defined as an accessway which extends to the shoreline, or perpendicular to the shoreline in order to provide access from the first public road to the shoreline.

2.64 An Offer to Dedicate (OTD) an easement for lateral public access shall be required for all new oceanfronting development causing or contributing to adverse public access impacts. Such easement shall extend from the mean high tide line landward to a point fixed at the most seaward extent of development i.e. intersection of sand with toe of revetment, vertical face of seawall, dripline of deck, or toe of bluff.

The Malibu LCP and Sections 30210 and 30211 of the Coastal Act 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 adequate public access to the sea be provided to allow use of dry sand and rocky coastal beaches.

All projects requiring a coastal development permit seaward of the first public road parallel the sea must be reviewed for compliance with the public access and recreation provisions of Chapter 3 of the Coastal Act in addition to the policies of the Malibu LCP. Based on the access, recreation and development sections of the Coastal Act, the Commission has required public access to and along the shoreline in new development projects and has required design changes in other projects to reduce interference with access to and along the shoreline.

The major access issue in this permit application is the occupation of sandy beach area by a structure and potential effects on shoreline sand supply and public access in contradiction of Coastal Act policies 30211 and 30221. As stated previously, no shoreline protective device is required, or proposed, to protect the proposed residence. The proposed project is located on Amarillo Beach, within about one quarter mile east or downcoast of the nearest open public vertical coastal accessway along Malibu Road. Further, there are several existing and potential lateral public access easements across several lots in the vicinity of the project site.

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

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

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

The Commission must consider a project's direct and indirect effect on public tidelands. To protect public tidelands when beachfront development is proposed, the Commission must consider (1) whether the development or some portion of it will encroach on public tidelands (i.e., will the development be located below the mean high tide line as it may exist at some point throughout the year) and (2) if not located on tidelands, whether the development will indirectly affect tidelands by causing physical impacts to tidelands. In the case of the proposed project, the State Lands Commission presently does not assert a claim that the project intrudes onto sovereign lands (Exhibit 22).

Even structures located above the mean high tide line, however, may have an adverse effect on shoreline processes as wave energy reflected by those structures contributes to erosion and steepening of the shore profile, and ultimately to the extent and availability of tidelands. That is why the Commission also must consider whether a project will have indirect effects on public ownership and public use of shorelands. The

applicants seek Commission approval to demolish a retaining wall and construct a new residence with a bulkhead among other improvements discussed above in detail. As previously discussed, although the proposed project will not include the construction of a shoreline protection device to protect the residence, the direct occupation of sandy area by the proposed residence, will result in potential adverse effects to public access along the sandy beach.

The Commission notes that a shoreline protective device is proposed as a part of this project to protect the proposed septic system. The Commission further notes that interference by a shoreline protective device has a number of adverse effects on the dynamic shoreline system and the public's beach ownership interests. First, changes in the shoreline profile, particularly changes in the slope of the profile, which results from reduced beach width, alter the usable area under public ownership. A beach that rests either temporarily or permanently at a steeper angle than under natural conditions will have less horizontal distance between the mean low water and mean high water lines. This reduces the actual area of public property available for public use. The second effect on access is through a progressive loss of sand as shore material is not available to nourish the bar. The lack of an effective bar can allow such high wave energy on the shoreline that materials may be lost far offshore where it is no longer available to nourish the beach. The effect of this on the public is again a loss of area between the mean high water line and the actual water. Third, shoreline protective devices such as revetments and bulkheads cumulatively affect public access by causing accelerated and increased erosion on adjacent public beaches. This effect may not become clear until such devices are constructed individually along a shoreline and they eventually affect the profile of a public beach. Fourth, if not sited landward in a location that insures that the revetment is only acted upon during severe storm events, beach scour during the winter season will be accelerated because there is less beach area to dissipate the wave' energy. Finally, revetments and bulkheads interfere directly with public access by their occupation of beach area that will not only be unavailable during high tide and severe storm events but also potentially throughout the winter season.

In past permit actions, the Commission has required new shoreline protection devices to be located as far landward as possible in order to reduce adverse effects on sand supply and public access from the development. In the case of this project, the Commission notes that the new seawall and septic system will be located as far landward as possible. However, the Commission further notes that any future improvements to the proposed seawall that might result in the seaward extension of the shoreline protection device would result in increased adverse effects to shoreline sand supply and public access. Therefore, to ensure that the proposed project does not result in new future adverse effects to public access, **Special Condition No. Two** requires the applicant to record a deed restriction that would prohibit any future repair or maintenance, enhancement, reinforcement, or any other activity affecting the shoreline protective device approved pursuant to this permit if such activity extends the seaward footprint of the subject shoreline protective device.

Likewise, the Commission further notes that the purpose of the shoreline protective device authorized by this permit is solely to protect the septic system on the subject site

and that no shoreline protective device is required to protect the residence authorized by this permit. If the septic system approved under this permit were replaced or abandoned, then the seawall approved under this permit to protect the septic system might no longer be necessary and the adverse impacts of the shoreline protective device on public access could be eliminated through its removal or by locating it further landward. As a result, **Special Condition No. Five** requires the applicant to agree that a new coastal development permit for the shoreline protective device authorized this permit shall be required if the proposed septic system is replaced or abandoned for any reason (including the installation of a new sewer system along Malibu Road) and that if a new coastal development permit for the shoreline protective device is not obtained in the event of replacement or abandonment of the septic system, then the shoreline protective device authorized by this permit shall be removed.

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

These use rights are implicated when the public walks on 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, which is why the effects of structures constructed on the beach are of particular concern.

The beaches of Malibu are extensively used by visitors of both local and regional origin and most planning studies indicate that attendance of recreational sites will continue to increase significantly in the future. The public has a right to use the shoreline under the public trust doctrine, the California Constitution, and State common law. The Commission must protect those public rights by assuring that any proposed shoreline development does not interfere with or will only minimally interfere with those rights. In the case of the proposed project, the potential for the permanent loss of sandy beach as a result of the change in the beach profile, steepening from potential scour effects, and presence of a residential structure out over the sandy beach do exist.

In past permit actions, the Commission has required that all new development on a beach, including the construction of new single family residences or shoreline protection devices, provide for lateral public access along the beach in order to mitigate adverse effects to public access from increased beach erosion. The subject property includes a lateral public access dedication providing for public access along the entire beach

under all tidal conditions as measured landward 15 feet from the mean high tideline, as illustrated on Exhibit 20.

In order to conclude with absolute certainty what adverse effects would result from the proposed project in relation to shoreline, a historical shoreline analysis based on site-specific studies would be necessary. Although the applicant has not submitted this level of analysis, the Commission notes that because the subject property includes a lateral public access dedication providing for public access along the entire beach under all tidal conditions as measured landward 15 feet from the mean high tideline, it has not been necessary for Commission staff to engage in an extensive analysis as to the adequacy of this dedication or whether the imposition of an offer to dedicate would be required.

In addition, the Commission notes that chronic unauthorized postings of signs illegally attempting to limit, or erroneously noticing restrictions on, public access have occurred on beachfront private properties in the Malibu area. These signs have an adverse effect on the ability of the public to access public trust lands. The Commission has determined that any sign, except for those located on the landward face or elevation of the residence identifying the occupant/owners name and street address, according to **Special Condition No. Six** would require a coastal development permit or amendment to this coastal development permit. **Special Condition No. Six** will also ensure that any other signs in addition to the one specifically described in this staff report are not posted on or near the proposed project site and that a coastal development permit or amendment to this coastal development permit shall be required prior to the posting of signs on the subject property. The Commission finds that if implemented, **Special Condition No. Six** will protect the public's right of access to the sandy beach below the mean high tide line.

In past permit actions regarding new development on the sandy beach, the Commission has typically allowed exterior lighting for the purpose of illuminating deck and other outdoor structural areas. However, the Commission notes that "beach lighting" flood lamps for the sole purpose of illuminating the sandy beach and not for illumination of the actual deck and flood lamps directed towards the public portion of the sandy beach from a private residence results in adverse effects to public views to beachgoers during evening hours. Further, the Commission also notes that flood lamp lighting intentionally directed towards the public portion of the sandy beach from a private residence also results in potential adverse effects to public access along the beach due to the creation of the appearance of an exclusive private use area seaward of the actual residence. Therefore, in order to ensure that adverse effects to public access along the beach are minimized, **Special Condition No. Seven** limits the location and intensity of exterior lighting near sandy beach areas on the subject site.

For all of these reasons, therefore, the Commission finds that, as conditioned, the proposed project is consistent with the Malibu LCP and the public access and recreation policies of the Coastal.

E. Water Quality

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

The Malibu LCP incorporated Section 30231 of the Coastal Act which states:

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

The Malibu LCP includes the following relevant policies in this case:

3.95 ***New development shall be sited and designed to protect water quality and minimize impacts to coastal waters by incorporating measures designed to ensure the following:***

- ***Protecting areas that provide important water quality benefits, areas necessary to maintain riparian and aquatic biota and/or that are susceptible to erosion and sediment loss.***
- ***Limiting increases of impervious surfaces.***
- ***Limiting land disturbance activities such as clearing and grading, and cut-and-fill to reduce erosion and sediment loss.***
- ***Limiting disturbance of natural drainage features and vegetation.***

3.96 ***New development shall not result in the degradation of the water quality of groundwater basins or coastal surface waters including the ocean, coastal streams, or wetlands. Urban runoff pollutants shall not be discharged or deposited such that they adversely impact groundwater, the ocean, coastal streams, or wetlands, consistent with the requirements of the Los Angeles Regional Quality Control Board's municipal stormwater permit and the California Ocean Plan.***

3.97 ***Development must be designed to minimize, to the maximum extent feasible, the introduction of pollutants of concern[12] that may result in significant impacts from site runoff from impervious areas. To meet the requirement to minimize "pollutants of concern," new development shall incorporate a Best Management Practice (BMP) or a combination of BMPs best suited to reduce pollutant loading to the maximum extent feasible.***

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[12] Pollutants of concern are defined in the Standard Urban Storm Water Mitigation Plan For Los Angeles County And Cities In Los Angeles County as consisting " of any pollutants that exhibit one or more of the following characteristics: current loadings or historic deposits of the pollutant are impacting the beneficial uses of a receiving water , elevated levels of the pollutant are found in sediments of a receiving water and/or have the potential to bioaccumulate in organisms therein, or the detectable inputs of the pollutant are at a concentrations or loads considered potentially toxic to humans and/or flora or fauna".

3.99 Post-development peak stormwater runoff discharge rates shall not exceed the estimated pre-development rate. Dry weather runoff from new development must not exceed the pre-development baseline flow rate to receiving waterbodies.

3.100 New development shall be sited and designed to minimize impacts to water quality from increased runoff volumes and nonpoint source pollution. All new development shall meet the requirements of the Los Angeles Regional Water Quality Control Board (RWQCB) in its the Standard Urban Storm Water Mitigation Plan For Los Angeles County And Cities In Los Angeles County (March 2000) (LA SUSMP) or subsequent versions of this plan.

3.102 Post-construction structural BMPs (or suites of BMPs) should be designed to treat, infiltrate, or filter the amount of stormwater runoff produced by all storms up to and including the 85th percentile, 24-hour storm event for volume-based BMPs and/or the 85th percentile, 1-hour storm event (with an appropriate safety factor, i.e. 2 or greater) for flow-based BMPs. This standard shall be consistent with the most recent Los Angeles Regional Water Quality Control Board municipal stormwater permit for the Malibu region or the most recent California Coastal Commission Plan for Controlling Polluted Runoff, whichever is more stringent.

3.110 New development shall include construction phase erosion control and polluted runoff control plans. These plans shall specify BMPs that will be implemented to minimize erosion and sedimentation, provide adequate sanitary and waste disposal facilities and prevent contamination of runoff by construction chemicals and materials.

3.111 New development shall include post-development phase drainage and polluted runoff control plans. These plans shall specify site design, source control and treatment control BMPs that will be implemented to minimize post-construction polluted runoff, and shall include the monitoring and maintenance plans for these BMPs.

3.115 Permits for new development shall be conditioned to require ongoing maintenance where maintenance is necessary for effective operation of required BMPS. Verification of maintenance shall include the permittee's signed statement accepting responsibility for all structural and treatment control BMP maintenance until such time as the property is transferred and another party takes responsibility.

3.116 The City, property owners, or homeowners associations, as applicable, shall be required to maintain any drainage device to insure it functions as designed and intended. All structural BMPs shall be inspected, cleaned, and repaired when necessary prior to September 30th of each year. Owners of these devices will be responsible for insuring that they continue to function properly and additional inspections should occur after storms as needed throughout the rainy season. Repairs, modifications, or installation of additional BMPs, as needed, should be carried out prior to the next rainy season.

3.118 Some BMPs for reducing the impacts of non-point source pollution may not be appropriate for development on steep slopes, on sites with low permeability soil conditions, or areas where saturated soils can lead to geologic instability. New development in these areas should incorporate BMPs that do not increase the degree of geologic instability.

3.119 New development that requires a grading permit or Local SWPPP shall include landscaping and re-vegetation of graded or disturbed areas, consistent with Policy 3.50. Any landscaping that is required to control erosion shall use native or drought-tolerant non-invasive plants to minimize the need for fertilizer, pesticides, herbicides, and excessive irrigation. Where irrigation is necessary, efficient irrigation practices shall be required.

3.120 ***New development shall protect the absorption, purifying, and retentive functions of natural systems that exist on the site. Where feasible, drainage plans shall be designed to complement and utilize existing drainage patterns and systems, conveying drainage from the developed area of the site in a non-erosive manner. Disturbed or degraded natural drainage systems shall be restored, where feasible, except where there are geologic or public safety concerns.***

3.125 ***Development involving onsite wastewater discharges shall be consistent with the rules and regulations of the L.A. Regional Water Quality Control Board, including Waste Discharge Requirements, revised waivers and other regulations that apply.***

3.126 ***Wastewater discharges shall minimize adverse impacts to the biological productivity and quality of coastal streams, wetlands, estuaries, and the ocean. On-site treatment systems (OSTSs) shall be sited, designed, installed, operated, and maintained to avoid contributing nutrients and pathogens to groundwater and/or surface waters.***

3.127 ***OSTSs shall be sited away from areas that have poorly or excessively drained soils, shallow water tables or high seasonal water tables that are within floodplains or where effluent cannot be adequately treated before it reaches streams or the ocean.***

3.128 ***New development shall be sited and designed to provide an area for a backup soil absorption field in the event of failure of the first field.***

3.130 ***Subsurface sewage effluent dispersal fields shall be designed, sited, installed, operated, and maintained in soils having acceptable absorption characteristics determined either by percolation testing, or by soils analysis, or by both. No subsurface sewage effluent disposal fields shall be allowed beneath nonporous paving or surface covering.***

3.131 ***New development shall include the installation of low-flow plumbing fixtures, including but not limited to flow-restricted showers and ultra-low flush toilets, and should avoid the use of garbage disposals to minimize hydraulic and/or organic overloading of the OSTS.***

3.132 ***New development may include a separate greywater dispersal system where approved by the Building Safety Department.***

3.133 ***New development shall include protective setbacks from surface waters, wetlands and floodplains for conventional or alternative OSTSs, as well as separation distances between OSTS system components, building components, property lines, and groundwater. Under no conditions shall the bottom of the effluent dispersal system be within five feet of groundwater.***

3.134 ***The construction of private sewage treatment systems shall be permitted only in full compliance with the building and plumbing codes and the requirements of the LA RWQCB. A coastal development permit shall not be approved unless the private sewage treatment system for the project is sized and designed to serve the proposed development and will not result in adverse individual or cumulative impacts to water quality for the life of the project.***

3.138 ***Applications for new development relying on an OSTS shall include a soils analysis and or percolation test report. Soils analysis shall be conducted by a California Registered Geotechnical Engineer or a California Registered Civil Engineer in the environmental/geotechnical field and the results expressed in United States Department of Agriculture classification terminology. Percolation tests shall be conducted by a California Registered Geologist, a California registered Geotechnical Engineer, a California Registered Civil Engineer, or a California Registered Environmental Health Specialist. The***

OSTS shall be designed, sited, installed, operated, and maintained in full compliance with the building and plumbing codes and the requirements of the LA RWQCB.

3.139 New septic systems shall be sited and designed to ensure that impacts to ESHA, including those impacts from grading and site disturbance and the introduction of increased amounts of groundwater, are minimized. Adequate setbacks and/or buffers shall be required to protect ESHA and other surface waters from lateral seepage from the sewage effluent dispersal systems.

3.141 Applications for a coastal development permit for OSTS installation and expansion, where groundwater, nearby surface drainages and slope stability are likely to be adversely impacted as a result of the projected effluent input to the subsurface, shall include a study prepared by a California Certified Engineering Geologist or Registered Geotechnical Engineer that analyzes the cumulative impact of the proposed OSTS on groundwater level, quality of nearby surface drainages, and slope stability. Where it is shown that the OSTS will negatively impact groundwater, nearby surface waters, or slope stability, the OSTS shall not be allowed.

The applicant is proposing to demolish retaining wall, and construct 2-story 4,871 sq.ft. single-family home, 742 sq.ft. garages, bulkhead retaining wall, concrete piles, alternative septic system, below-grade slide retention structure, 291 cu.yds. of grading, and no landscaping.

As such, the proposed project will result in an increase of impervious surface on site, which in turn decreases the infiltrative function and capacity of existing permeable land and sand on the project site. The Commission notes that this reduction in permeable surface leads to an increase in the volume and velocity of stormwater runoff that can be expected to leave the site. The cumulative effect of increased impervious surface is that the peak water discharge is increased and the peak occurs much sooner after precipitation events. Additionally, grading, excavations and disturbance of the site from construction activities and runoff from impervious surfaces can result in increased erosion of disturbed soils and in sedimentation of the ocean.

In addition, pollutants commonly found in runoff associated with new development include petroleum hydrocarbons including oil and grease from vehicles; heavy metals; synthetic organic chemicals including paint and household cleaners; soap and dirt from washing vehicles; dirt and vegetation from yard maintenance; litter and organic matter; fertilizers, herbicides, and pesticides from household gardening or more intensive agricultural land use; nutrients from wastewater discharge, animal waste and crop residue; and bacteria and pathogens from wastewater discharge and animal waste.. The discharge of these pollutants to coastal waters can cause cumulative impacts such as: eutrophication and anoxic conditions resulting in fish kills and diseases and the alteration of aquatic habitat including adverse changes to species composition and size; excess nutrients causing algae blooms and sedimentation increasing turbidity, which both reduce the penetration of sunlight needed by aquatic vegetation which provides food and cover for aquatic species; disruptions to the reproductive cycle of aquatic species; acute and sublethal toxicity in marine organisms leading to adverse changes in reproduction and feeding behavior; and human diseases such as hepatitis and dysentery. These impacts reduce the biological productivity and the quality of coastal

waters, streams, wetlands, estuaries, and lakes and reduce optimum populations of marine organisms and have adverse impacts on human health.

The LCP water quality policies cited above are designed to protect water quality and prevent pollution of surface, ground, and ocean waters. The Malibu LCP requires the preparation of a Storm Water Management Plan (SWMP) for all projects that require a coastal development permit or a Water Quality Mitigation Plan (WQMP) for new residential developments on beachfront parcels that involve result in the creation or addition or replacement of 2,500 sq. ft. or more of impervious surface. A SWMP illustrates how the project will use appropriate site design and source control best management practices (BMPs) to minimize or prevent adverse effects of the project on water quality. A WQMP requires treatment control (or structural) BMPs, in addition to site design and source control BMPs that are required for a SWMP, to minimize or prevent the discharge of polluted runoff from a project site . In this case, the project involves the construction of more than 2,500 sq. ft. of impervious surface area on a vacant beachfront site, a total of 4,087 sq. ft. for the proposed residence and driveway. Therefore, pursuant to the requirements of the Malibu LCP, and to ensure the proposed project will not adversely impact water quality or coastal resources, the Commission finds it necessary to require the preparation of a WQMP for the subject site, that utilizes site design, source control and treatment control BMPs, as specified in **Special Condition No. Eight.**

Furthermore, erosion control and storm water pollution prevention measures implemented during construction will serve to minimize the potential for adverse impacts to water quality resulting from runoff during construction. The Malibu LCP requires that a Local Storm Water Pollution Prevention Plan (SWPPP) be prepared for all development that requires a Coastal Development Permit and a grading or building permit, and it shall apply to the construction phase of the project. The SWPPP includes measures and BMPs to prevent erosion, sedimentation and pollution of surface and ocean waters from construction and grading activities. In this case, the proposed project does involve grading and construction that requires grading and building permits. Therefore, pursuant to the Malibu LCP and to ensure the proposed development does not adversely impact water quality or coastal resources during the construction phase of the project, the Commission finds it necessary to require the applicant to submit a Local SWPPP for the subject site, consistent with the requirements specified in **Special Condition No. Eight.**

Finally, the proposed development includes the upgrade of an on site wastewater treatment system (OSTS) to serve the residence. The applicant is proposing to construct a new 2,500 gallon tank with a effluent filter. The Malibu LCP includes a number of policies and standards relative to the design, siting, installation, operation and maintenance of OSTSs to ensure these systems do not adversely impact coastal waters. The proposed upgrades to the existing OSTS were previously reviewed and approved in concept by the City of Malibu Environmental Health Department, determining that the system meets the requirements of the plumbing code. However, with the recent adoption of the Malibu LCP, new more stringent standards regarding the siting, design, installation, operation and maintenance of OSTSs have been

established. Therefore, the Commission finds that it is necessary to require the applicant to submit a report and plans prepared by a qualified professional, that have been reviewed and approved by the City of Malibu Environmental Health Department, verifying the proposed septic system complies with the siting, design, installation, operation and maintenance requirements specified in **Special Condition No. Nine.**

In addition, in order to ensure the OSTS is maintained and monitored in the future to prevent system failures or inadequate system performance, the Malibu LCP includes policies and standards requiring the regular maintenance and monitoring of the OSTS. Therefore, the Commission finds that it is necessary to require the applicant to submit verification that they have obtained a monitoring, operation and maintenance permit from the City, as outlined in **Special Condition No. Nine.**

Finally, the City of Malibu Environmental Health Department has given in-concept approval of the proposed septic system, determining that the system meets the requirements of the plumbing code. The Commission has found that conformance with the provisions of the plumbing code is protective of resources.

The Commission finds that based on the above findings the proposed project, as conditioned, will not result in adverse impacts to water quality and is consistent with the applicable policies of the Malibu LCP.

F. Scenic and Visual Resources

The Malibu LCP provides for the protection of scenic and visual resources, including views of the beach and ocean, views of mountains and canyons, and views of natural habitat areas. The LCP identifies Scenic Roads, which are those roads within the City that traverse or provide views of areas with outstanding scenic quality, that contain striking views of natural vegetation, geology, and other unique natural features, including the beach and ocean. The LCP policies require that new development not be visible from scenic roads or public viewing areas. Where this is not feasible, new development must minimize impacts through siting and design measures. In addition, development is required to preserve bluewater ocean views by limiting the overall height and siting of structures where feasible to maintain ocean views over the structures. Where it is not feasible to maintain views over the structure through siting and design alternatives, view corridors must be provided in order to maintain an ocean view through the project site.

Section 30251 of the Coastal Act, which is incorporated as a policy of the Malibu LCP, states that:

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

prepared by the Department of Parks and Recreation and by local government shall be subordinated to the character of its setting.

In addition, the following LCP policies are applicable in this case:

6.1 ***The Santa Monica Mountains, including the City, contain scenic areas of regional and national importance. The scenic and visual qualities of these areas shall be protected and, where feasible, enhanced.***

6.2 ***Places on and along public roads, trails, parklands, and beaches that offer scenic vistas are considered public viewing areas. Existing public roads where there are views of the ocean and other scenic areas are considered Scenic Roads. Public parklands and riding and hiking trails which contain public viewing areas are shown on the LUP Park Map. The LUP Public Access Map shows public beach parks and other beach areas accessible to the public that serve as public viewing areas.***

6.3 ***Roadways traversing or providing views of areas of outstanding scenic quality, containing striking views of natural vegetation, geology, and other unique natural features, including the ocean shall be considered Scenic Roads. The following roads within the City are considered Scenic Roads:***

- ***Pacific Coast Highway***
- ***Decker Canyon Road***
- ***Encinal Canyon Road***
- ***Kanan Dume Road***
- ***Latigo Canyon Road***
- ***Corral Canyon Road***
- ***Malibu Canyon Road***
- ***Tuna Canyon Road***

6.4 ***Places on, along, within, or visible from scenic roads, trails, beaches, parklands and state waters that offer scenic vistas of the beach and ocean, coastline, mountains, canyons and other unique natural features are considered Scenic Areas. Scenic Areas do not include inland areas that are largely developed or built out such as residential subdivisions along the coastal terrace, residential development inland of Birdview Avenue and Cliffside Drive on Point Dume, or existing commercial development within the Civic Center and along Pacific Coast Highway east of Malibu Canyon Road.***

6.5 ***New development shall be sited and designed to minimize adverse impacts on scenic areas visible from scenic roads or public viewing areas to the maximum feasible extent. If there is no feasible building site location on the proposed project site where development would not be visible, then the development shall be sited and designed to minimize impacts on scenic areas visible from scenic highways or public viewing areas, through measures including, but not limited to, siting development in the least visible portion of the site, breaking up the mass of new structures, designing structures to blend into the natural hillside setting, restricting the building maximum size, reducing maximum height standards,***

clustering development, minimizing grading, incorporating landscape elements, and where appropriate, berming.

6.6 *Avoidance of impacts to visual resources through site selection and design alternatives is the preferred method over landscape screening. Landscape screening, as mitigation of visual impacts shall not substitute for project alternatives including resiting, or reducing the height or bulk of structures.*

6.7 *The height of structures shall be limited to minimize impacts to visual resources. The maximum allowable height, except for beachfront lots, shall be 18 feet above existing or finished grade, whichever is lower. On beachfront lots, or where found appropriate through Site Plan Review, the maximum height shall be 24 feet (flat roofs) or 28 feet (pitched roofs) above existing or finished grade, whichever is lower. Chimneys and rooftop antennas may be permitted to extend above the permitted height of the structure.*

6.15 *Fences, walls, and landscaping shall not block views of scenic areas from scenic roads, parks, beaches, and other public viewing areas.*

6.16 *Blufftop development shall incorporate a setback from the edge of the bluff that avoids and minimizes visual impacts from the beach and ocean below. The blufftop setback necessary to protect visual resources may be in excess of the setback necessary to ensure that risk from geologic hazards are minimized for the life of the structure, as detailed in Policy 4.27.*

6.16 *Where parcels on the ocean side of and fronting Pacific Coast Highway, Malibu Road, Broad Beach Road, Birdview Avenue, or Cliffside Drive descend from the roadway, new development shall be sited and designed to preserve bluewater ocean views by:*

- *Allowing structures to extend no higher than the road grade adjacent to the project site, where feasible.*
- *Limiting structures to one story in height, if necessary, to ensure bluewater views are maintained over the entire site.*
- *Setting fences away from the road edge and limiting the height of fences or walls to no higher than adjacent road grade, with the exception of fences that are composed of visually permeable design and materials.*
- *Using native vegetation types with a maximum growth height and located such that landscaping will not extend above road grade.*

6.18 *For parcels on the ocean side of and fronting Pacific Coast Highway, Malibu Road, Broad Beach Road, Birdview Avenue, or Cliffside Drive where it is not feasible to design a structure located below road grade, new development shall provide a view corridor on the project site, that meets the following criteria:*

- *Buildings shall not occupy more than 80 percent maximum of the lineal frontage of the site.*
- *The remaining 20 percent of lineal frontage shall be maintained as one contiguous view corridor.*
- *No portion of any structure shall extend into the view corridor.*
- *Any fencing across the view corridor shall be visually permeable and any landscaping in this area shall include only low-growing species that will not obscure or block bluewater views.*
- *In the case of development that is proposed to include two or more parcels, a structure may occupy up to 100 percent of the lineal frontage of any parcel(s) provided that the development does not occupy more than 70 percent*

maximum of the total lineal frontage of the overall project site and that the remaining 30 percent is maintained as one contiguous view corridor.

6.23 ***Exterior lighting (except traffic lights, navigational lights, and other similar safety lighting) shall be minimized, restricted to low intensity fixtures, shielded, and concealed to the maximum feasible extent so that no light source is directly visible from public viewing areas. Night lighting for sports courts or other private recreational facilities in scenic areas designated for residential use shall be prohibited.***

The project site is located seaward of Malibu Road in central Malibu just east of Malibu Bluffs State Park (Exhibit 1). Accessed from Pacific Coast Highway, Malibu Road is a coastal access route, not only utilized by local residents, but also heavily used by tourists and visitors to access Amarillo and Puerco Beaches from four existing vertical public accessways. Public views of the ocean and water from Malibu Road have been substantially reduced, or completely blocked, in many areas by the construction of single family residences, privacy walls, fencing, landscaping, and other residential related development between Pacific Coast Highway and the ocean. Specifically, the Commission notes that when residential structures are located immediately adjacent to each other, or there is continuous large scale landscaping, such development creates a wall-like effect when viewed from Malibu Road. As such, the Commission notes that such development, when viewed on a regional basis, will result in potential cumulative adverse effects to public views and to the visual quality of coastal areas.

The Malibu LCP requires that new residential development on vacant bluff lots, where feasible, be sited and designed so as not to block views of the ocean as seen from Pacific Coast Highway. In this case, there is a vacant parcel where a residence once existed until it burned in either 1968 or 1971. Since that time the public has enjoyed a beach and ocean vista from Malibu Road across this subject parcel. The applicant proposes to construct a new two story 28 feet high maximum sloped roof across 57 feet of the subject 65 foot wide parcel (Exhibits 2-19). As a result the proposed building will occupy about 88% of the lineal frontage of this site. In addition, there is a three foot high trash enclosure proposed for the east side and a three foot high block wall proposed on the west side of the building. Malibu LCP policy 6.18 requires that buildings occupy no more than 80% of the maximum lineal frontage of a site and policy 6.15 requires that fences, walls and landscaping shall not block views of scenic areas from public viewing areas. To provide a continuous public view corridor at least 20% of the lineal frontage shall be maintained as one continuous view corridor. The proposed project does not provide for this required view corridor on either the west or east side, each side is partially blocked with either a solid wall or a walled trash enclosure (Exhibits 3, 13, 14). As proposed the view corridor above these three foot high walls is five feet wide on the east side and three feet wide on the west. The maximum proposed view corridor above the east trash enclosure wall is five feet wide or about 7.7% of the lineal frontage of this parcel. In order to bring the proposed project into conformance, **Special Condition No. 10** requires the applicant to submit revised project plans that provide for a 20 % (Alternative 1 or 2 View Corridor, 13 feet wide identified in Exhibit 3) continuous view corridor unobstructed by fences, fireplaces, walls, roof overhangs or landscaping. Visually permeable fencing may be proposed to

provide adequate security across this view corridor. **Special Condition No. 11** requires the applicant to agree to a continuous public view corridor consisting of 20% or 13 feet wide. The Commission notes that the revised project will still allow for the construction of a large single family residence and three car garages, although reduced in total interior square footage from the proposed 4,871 sq. ft. for the residence and possibly from the proposed 742 sq. ft. for the two garages with one one car garage the other a two car garage. The public view corridor, as required by **Special Condition No. Eleven**, when executed and recorded on the property deed as required by **Special Condition No. Three** will ensure that the proposed and any future development will maintain this continuous public view corridor in the future.

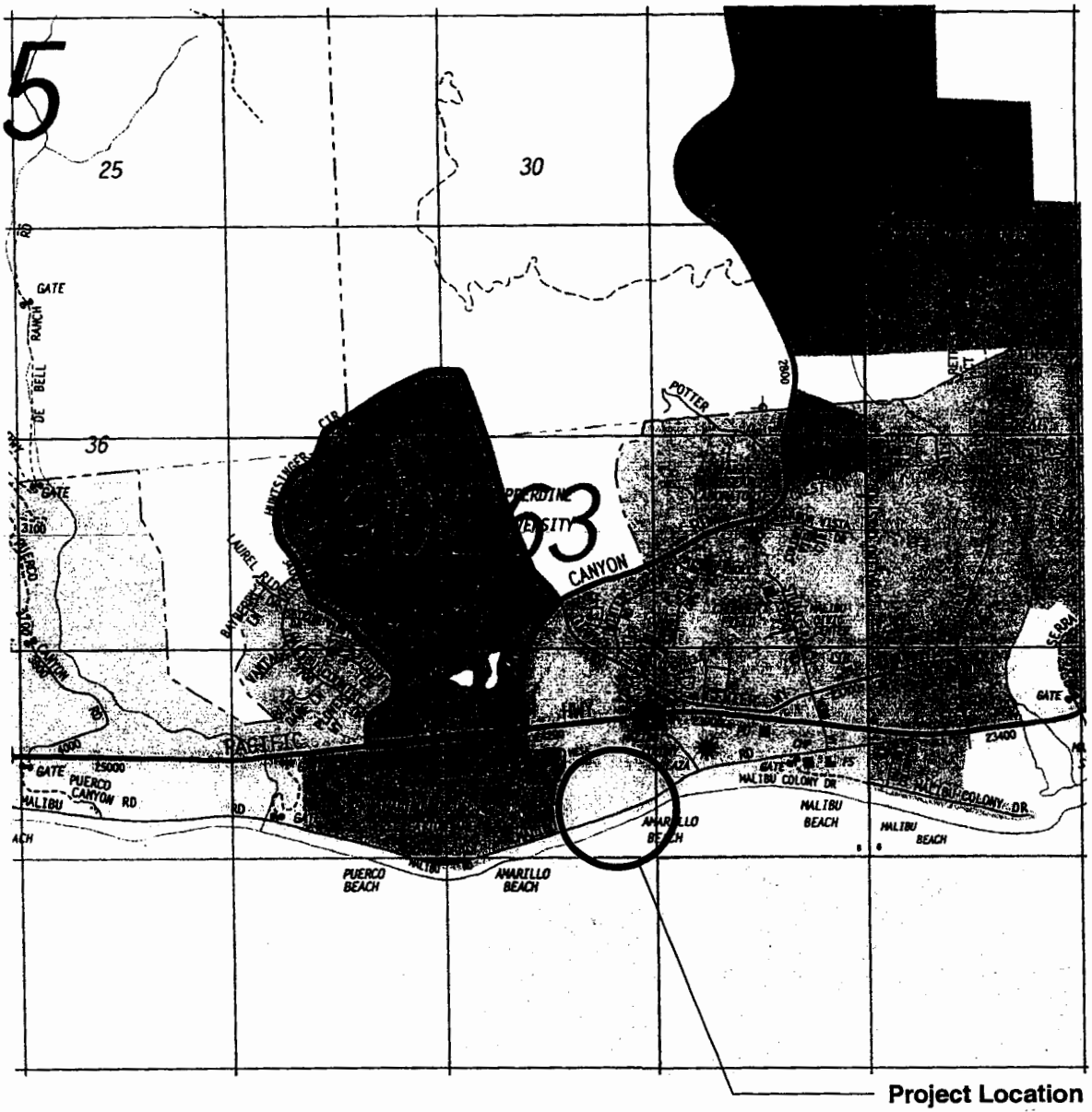
The Commission has found that night lighting of areas in the Malibu / Santa Monica Mountains area creates a visual impact to nearby scenic beaches, scenic roads, parks, and trails. In addition, night lighting may alter or disrupt feeding, nesting, and roosting activities of native wildlife species. Policy 6.23 of the Malibu LCP specifically restricts exterior lighting to be minimized and restricted to low intensity fixtures, shielded, and concealed to the maximum extent feasible so that no light source is directly visible from public viewing areas such as Malibu Road or the beach and ocean area in order to eliminate the adverse individual and cumulative visual impacts associated with the lighting of such areas visible from public areas. The applicant has proposed exterior lights on the north elevation (Exhibit 15) that appear to be directed downward and be shielded and no lights on the south elevation (Exhibit 16). In order to mitigate any potential future visual and environmental impacts of the proposed project, the Commission finds it necessary to require that exterior lighting to be minimized and restricted to low intensity fixtures, shielded, and concealed to the maximum extent feasible so that no light source is directly visible from public viewing areas such as Malibu Road or the beach and ocean area, as specified in **Special Condition No. Seven.**

In summary, the proposed project, as conditioned, will not result in a significant adverse impact to scenic public views or the character of the surrounding area in this portion of Malibu. In addition, the project, as conditioned is the least environmentally damaging alternative and there are no alternatives that would lessen any significant adverse impact on scenic and visual resources. Thus, the Commission finds that the proposed project is consistent, as conditioned, with applicable policies of the Malibu LCP.

G. California Environmental Quality Act

Section 13096(a) of the Commission's administrative regulations requires Commission approval of a Coastal Development Permit application to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California Environmentally Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available, which would substantially lessen any significant adverse effect that the activity may have on the environment. The City of Malibu has determined that the proposed project is categorically exempt from CEQA on 8/16/02.

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



Project Location

1 Vicinity Map

Thomas Guide (page 628, H7)

EXHIBIT NO. 1
APPLICATION NO. 4-02-166
Vicinity Map

Sheet	Scale: N.T.S.	Malibu Road Residence 24166 Malibu Road Malibu, CA 90265	2148-C Federal Avenue Los Angeles, CA 90025 tel. (310) 477-9972 fax (310) 477-0535 ARCHITECTURE • INTERIORS • PLANNING STAFF ARCHITECT
SK-2	Date: 6/25/2002		
	Drawn: TBC		

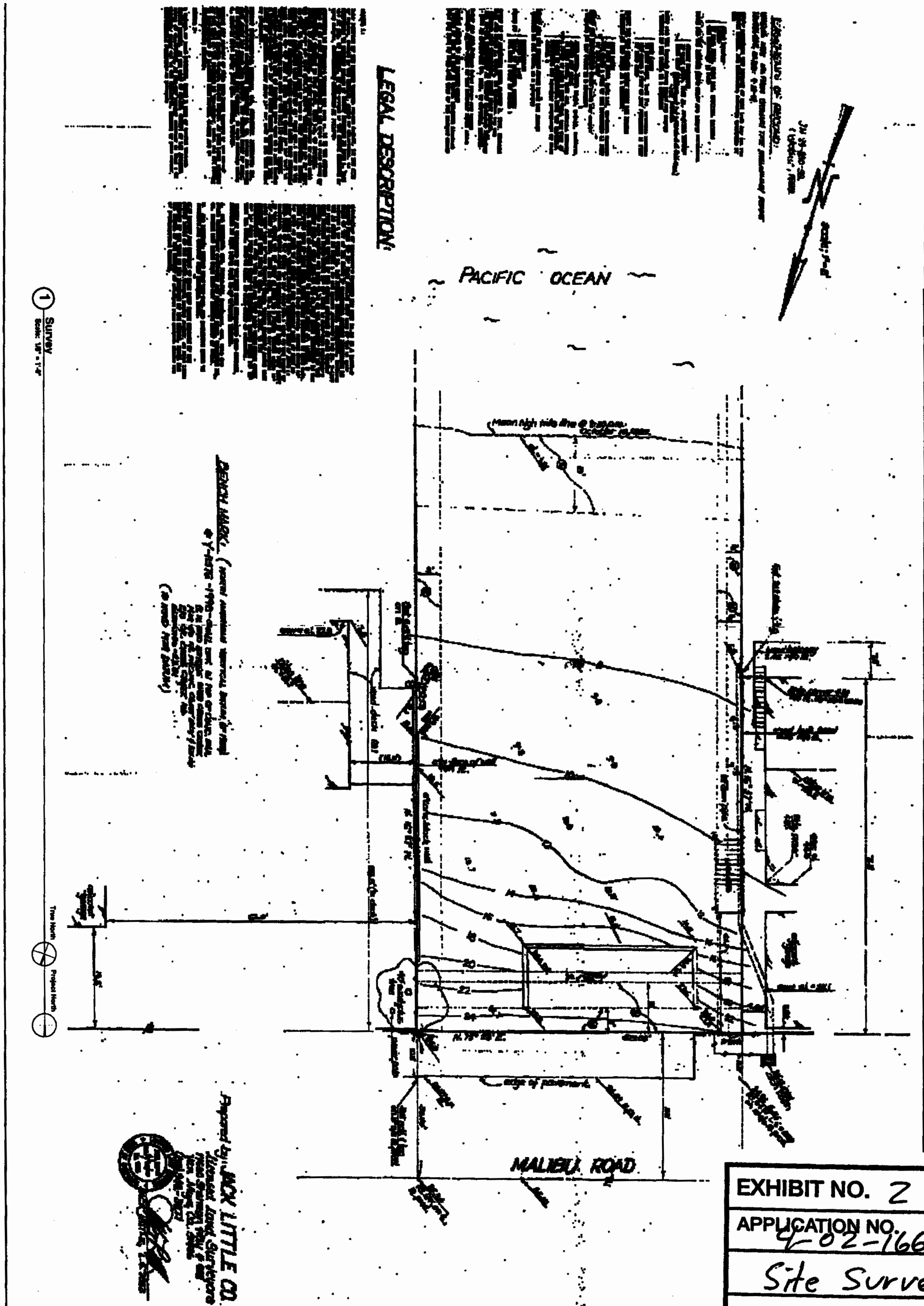


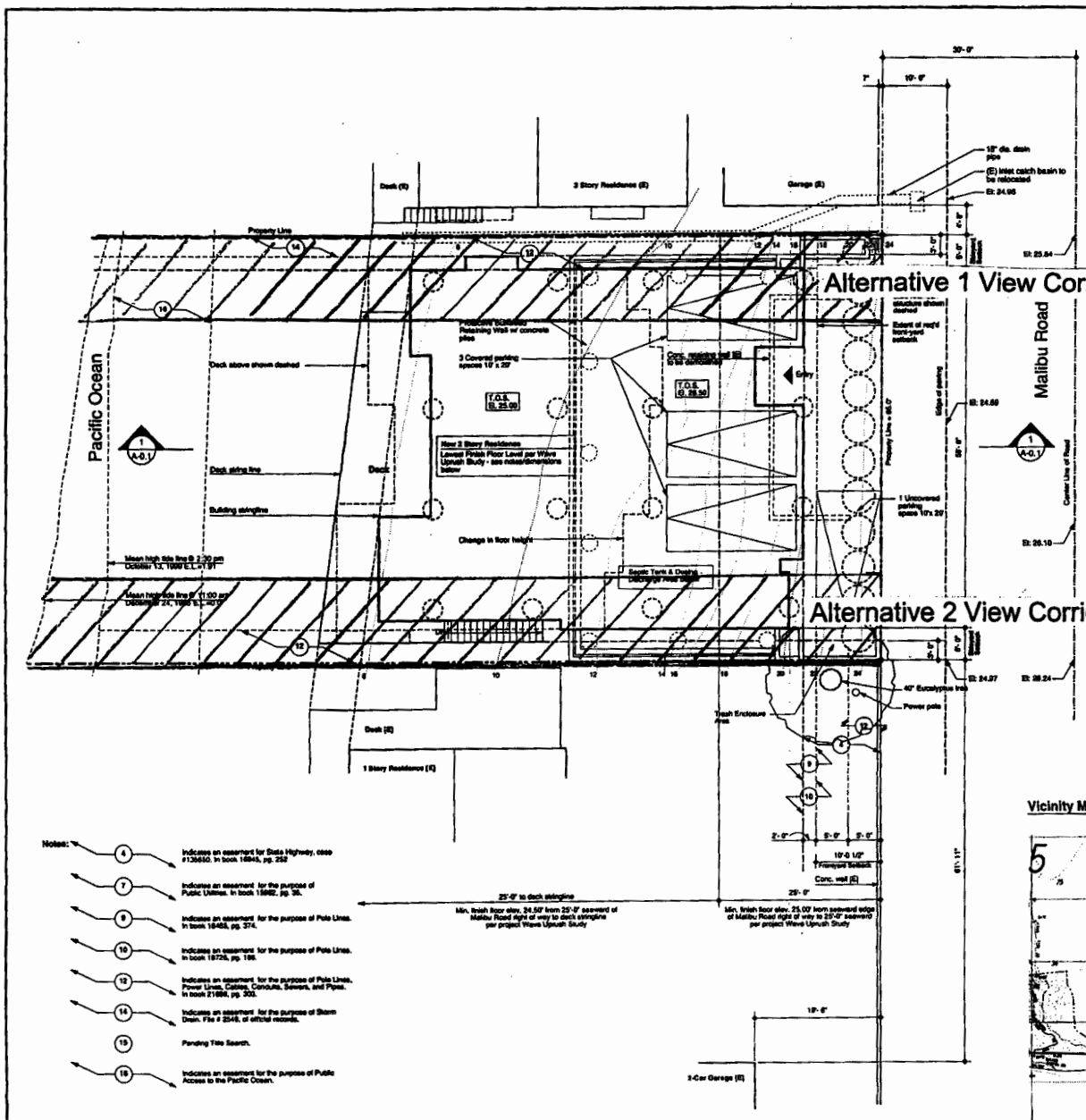
EXHIBIT NO. 2

APPLICATION NO. 4-02-166

Site Survey

Sheet: A-0.2	Survey	24166 Malibu Road Malibu, California 90265

EXHIBIT NO. 3
APPLICATION NO. 4-02-186
Site Plan & Alt View Corridors



Plot Plan Notes

All elevations called out in this set of architectural and structural plans and surveys are referenced to the 1929 NGVD (MSL) Datum as required by the wave uprush study dated January 18, 2000 and prepared by Pacific Engineering Group.

L.A. County Fire Department Notes

Assessment for Fuel Modification Plan - Beach Houses

1. Target trees are not allowed within ten feet of combustible structures.
2. Remove that portion of any tree that extends within ten feet of the outlet of any chimney. (F.C. 1117.2.2(d))
3. Maintain any adjacent trees to or overhanging any building free of dead wood. (F.C. 1117.2.2(5))
4. Maintain the roof of any structure free of leaves, needles, or other dead vegetative growth. (F.C. 1117.2.2(6))
5. Remove all dead and dying vegetation, all tree tuals reduced to three inches in height.
6. Any plants selected for planting will be chosen from the approved plant list.
7. Requires annual removal and/or thinning of undesirable combustible vegetation.
8. All grasses shall be maintained at a height not to exceed three inches.
9. Compliance with the fire code is a year round responsibility. Enforcement will occur following inspection by the Fire Department annually or as needed. Annual inspections are generally conducted following natural drying of fine fuels. This occurs between the months of April and June.
10. Maintain property as required by the local fire station.

s Roads

remove flammable growth for a minimum of ten feet on each side roads. (F.C. 1117.5D)
roads, driveways, and turnarounds shall be maintained in accordance with the Fire Code. Fire access roads shall have unobstructed vertical clearance to the sky. (F.C. 902.2.2.1)
5. Within the 10 foot clearance zone it is recommended that proposed surface fuels be appropriately spaced and maintained at a height not to exceed 18 inches.
4. Proposed trees shall be planted outside the 10 foot clearance zone.

Long Term Maintenance Agreement

The homeowner(s) agree to be responsible for the long term maintenance of the Fuel Modification Plan, as described herein.

Property Owner — Date

Project Data

Project Description:

Project Address:

Legal Description:

A.P.N.:

Zone:

Council District:

Height Limit:

Setbacks:
Front: [illegible] 7' + 10'-0 1/2" = 17'-0 1/2"
Rear: Determined by the stringline rule
Side: 10% of lot width on each side with a 3' min. and a 5' max.

Lot Size:
Width: 66.00'
Depth: ± 122.00'
Lot Area: ± 7,830 Square Feet

Proposed Residence Area:
Habitable Space: Ground Floor: 1,937 sq.ft. / Second Floor: 1,371 sq.ft. / Total: 3,308 sq.ft.
Non-habitable Space: 1 Car Garage 288 Square Feet / 2 Car Garage 272 Square Feet / Total: 748 sq. ft.

Lot Coverage Calculations: 3265 Sq. Ft. / 7830 Sq. Ft. = 41.17% < 45% (max. allowable)
Covered Parking Provided: 3
Uncovered Parking Provided: 1
Proposed # Of Stories: Two
Proposed Occupancy: R-3 Residence / U-1 Garage
Proposed Building Type: V-N
Proposed Fire Sprinklers: Fully Fire Sprinklered

Project Team

Owner
LAB Investments
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Los Angeles, CA 90025
(310) 477-0525

Architect
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(310) 441-2580 fax

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Van Nuys, CA 91406
(818) 342-3277

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(310) 217-1908 fax

Geologist
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(805) 583-1225 fax

Coastal Engineer
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Pacific Engineering Group
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West Hills, CA 91307
(818) 227-8080

Civil Engineer
Victor Dell
VPL Consulting Inc
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Sherman Oaks, CA 91403
(818)784-5110

Residential Waste Water Disposal System Consultant
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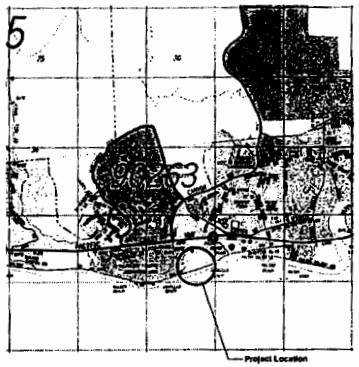
861 Rich Hill St.
Thousand Oaks, CA 91320
(805) 499-6620

Vicinity Map



Applicable Codes and Editions

1997 Uniform Building Code
1997 Uniform Plumbing Code
1997 Uniform Mechanical Code
1997 National Electrical Code

Index of Drawings

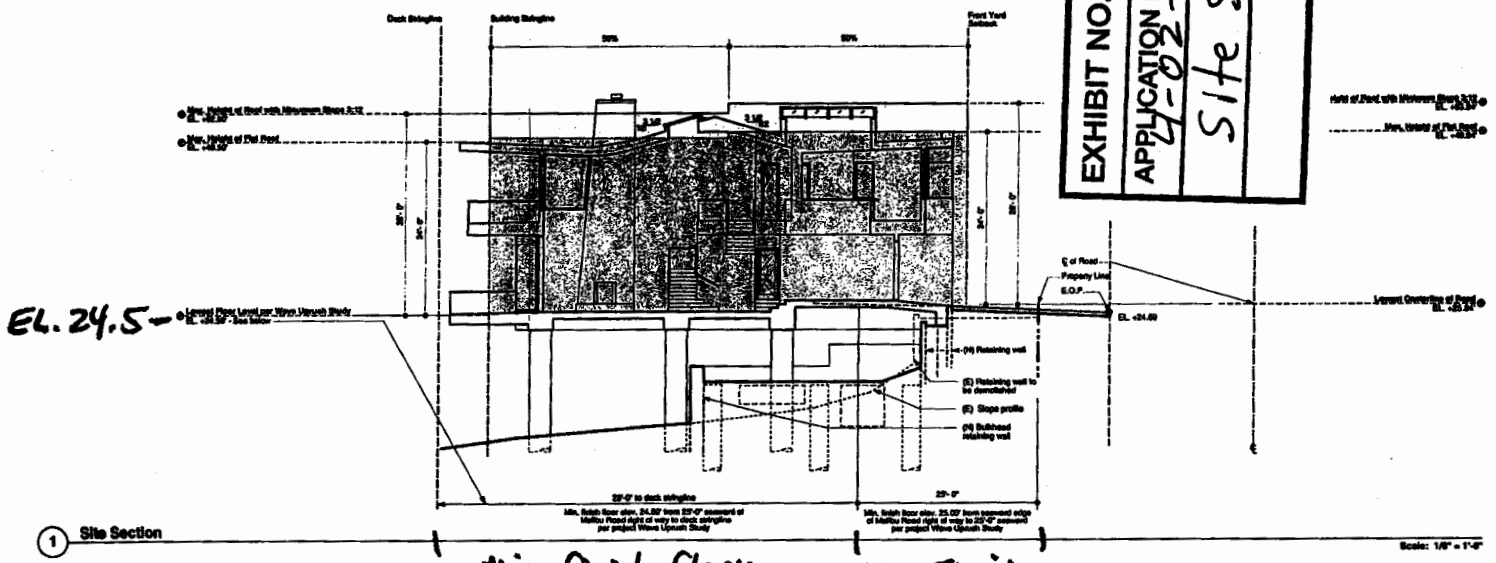
Revisions | By

Malibu Road Residence
24166 Malibu Rd.
Malibu, CA 90265

Site Plan, Project Data, Vicinity Map, Project Team, & Index of Drawings

Date: 6/27/2002
Scale: As Shown
Drawn: TBC
Phase: CD
Sheet: A-0

EXHIBIT NO. 4
APPLICATION NO. 4-02-166
Site Section



1 Site Section

Min finish floor elev. 24.5' from 25' seaward of Malibu Road right of way to deck stringline

Min Finish Floor Elev. 25' from Seaward edge of Malibu Road right of way.

Revisions	By

Malibu Road Residence
24166 Malibu Rd.
Malibu, CA 90265

Site Section

Date: 5/8/2002
Scale: As Shown
Drawn: TBC
Phase: CD
Sheet
A-0.1

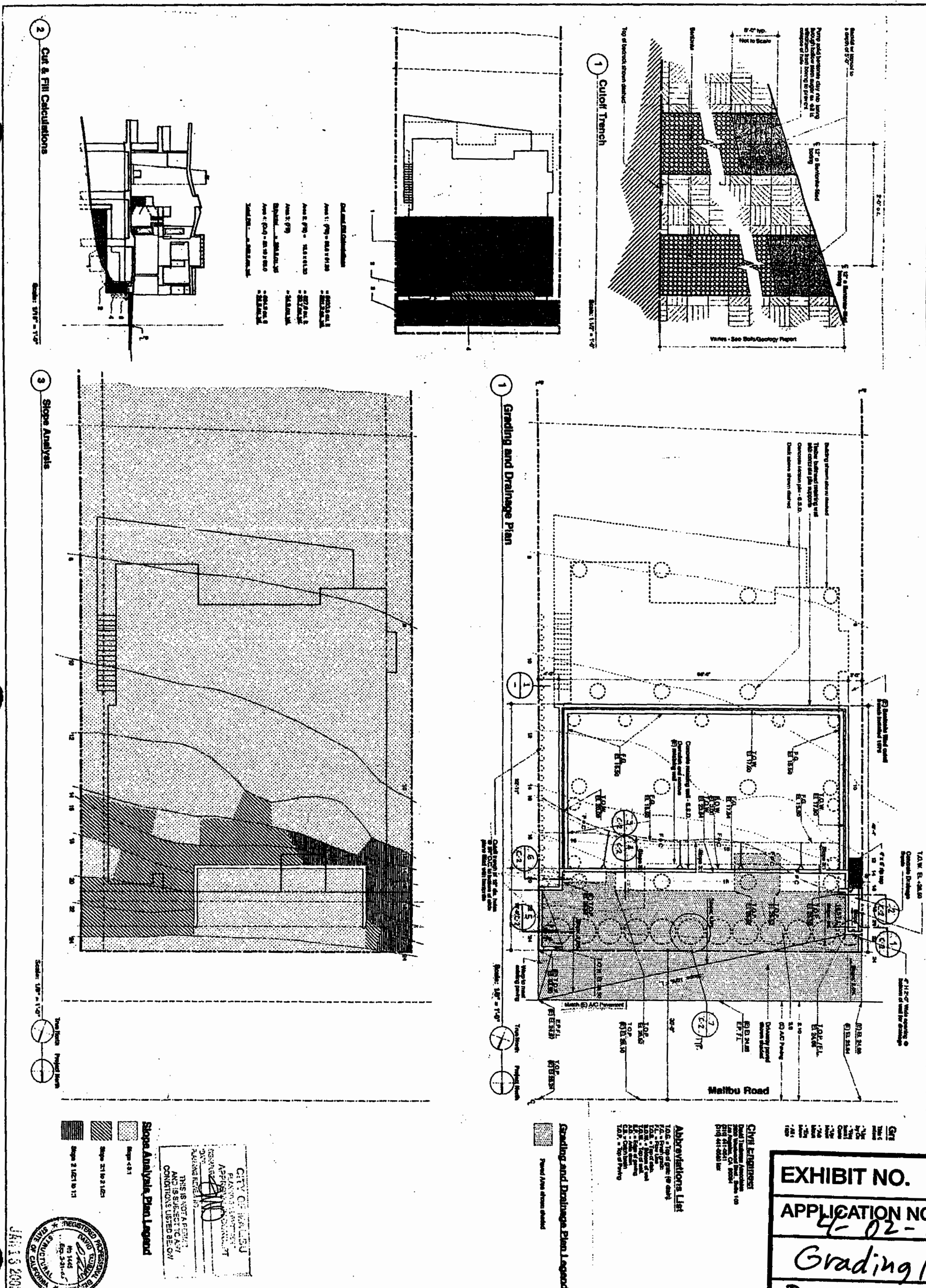


EXHIBIT NO. 5

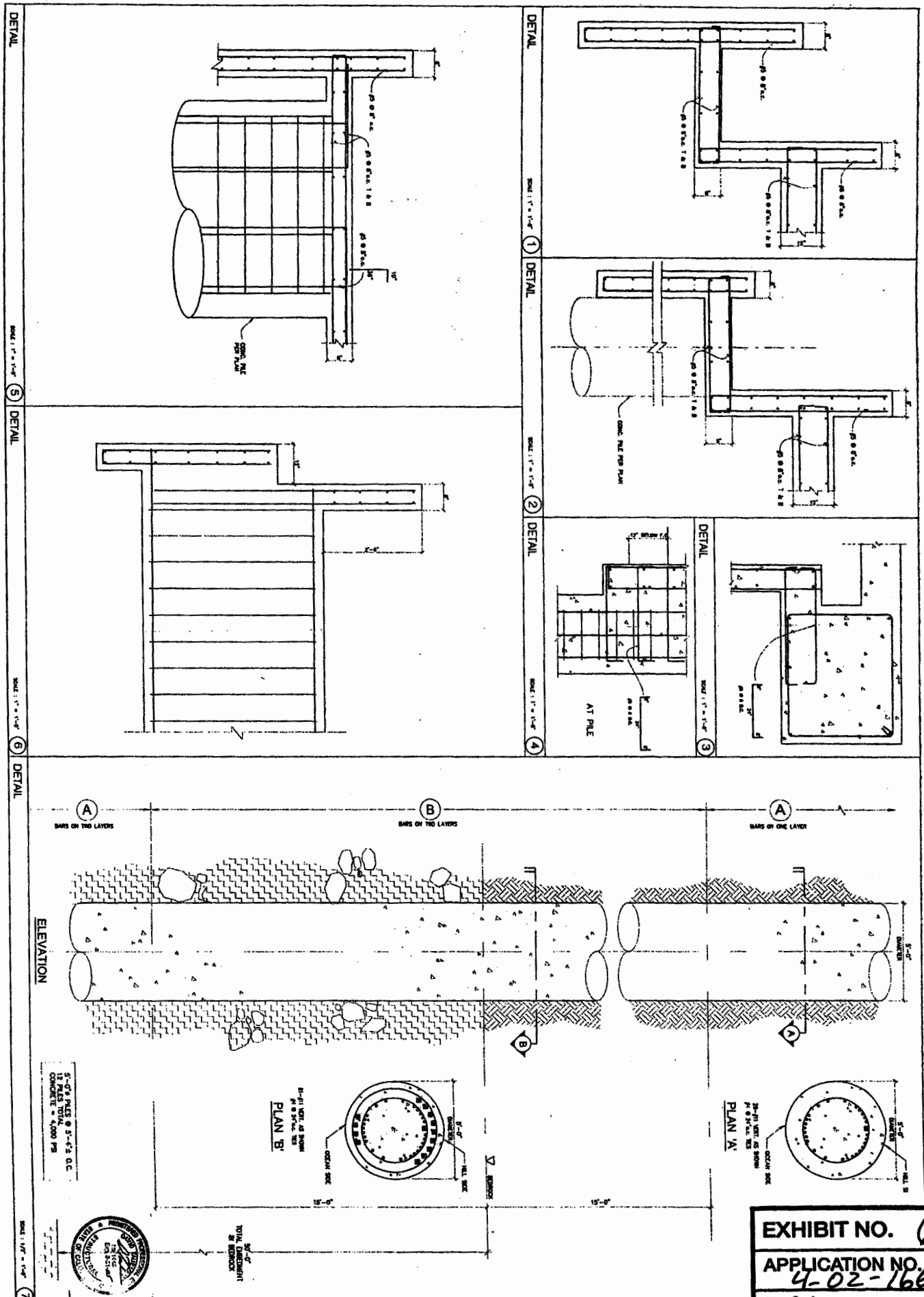
APPLICATION NO. 4-02-166

Grading / Drainage Plan

Date:	11/20/2002
Scale:	As Shown
Drawn:	JG
Plotted:	CD
Sheet	C-1

Grading / Drainage Plan
Slope Analysis Plan
Cut & Fill Calculations

Malibu Road Residence
24166 Malibu Rd.
Malibu, CA 90265



C-2

Pile Setion Detail

MALIBU ROAD RESIDENCE
24166 Malibu Rd.
Malibu, CA 90265

EXHIBIT NO. 6
APPLICATION NO. 4-02-166
Pile Section Detail

EXHIBIT NO. 7
APPLICATION NO. 4-02-166
Alt. Waste Water Disposal

Residential Waste Water Disposal System Notes

SPECIAL NOTES TO HOme OWNERS USING AN ALTERNATIVE PRIVATE SEPTIC SYSTEM FOR WASTE WATER DISPOSAL :

1. The City of Malibu requires all dwellings using a alternative method of waste water treatment to provide the following:
   (a) A Covenant running with the land shall be executed between the City of Malibu and the holder of the fee simple absolute as to the subject real property and recorded with the Los Angeles County Recorder's Office. Said covenant serves as constructive notice to any future purchaser for value that the onsite wastewater disposal system serving subject property is an alternative/demonstration method of wastewater disposal under the City of Malibu Uniform Plumbing Code, Appendix I, Section 1(l).
   (b) A maintenance contract must be executed between the owner of subject property and an entity qualified in the opinion of the City of Malibu to maintain the proposed alternative/demonstration onsite wastewater disposal system after construction.
2. At all times only biodegradable household products approved for private septic system should be used (ie: cleaning products, toilet paper, laundry soaps).
3. All water discharging fixtures in the dwelling should be designed using low flow devices.
4. Never dispose of coffee grounds, grease, paint, caustic or oily liquids, fuels, cooking fats motor oils, sanitary napkins, tampons, condoms, cigarette butts or disposable diapers into the septic system.
5. Always be water wise and train your family on ways to save water.
6. Spread your laundry day over several days of the week. Three wash loads discharging to the septic system is greater than the water use for one person per day. Not counting the chemicals damage to the bacteria in the septic tank.
7. Repair any plumbing fixture water leaks at once. One running toilet can discharge more water than three additional people living in the house.
8. Eliminate as much as possible using your garbage waste disposal. Dispose of waste products in trash or compost those waste products an use as fertilizer.
9. An alternative septic system is sized for the planned dwelling and the occupancy load of that dwelling. Over loading the system high discharges can and will damage the system. Plan ahead for guest or parties and discuss what actions need to be done with your septic maintenance company.

Please refer to enclosed plot plan for concept design layout for the Alternate septic system for this project. If you have any questions, please contact me at your earliest convenience.

This report relates only to the requirements of industry standards for Alternative septic system and evaluation of geological reports submitted for my review. Thank you for this opportunity to be of service.

Barton Slutske, REHS
Cal. Reg.# 3940

BARTON SLUTSKE

Registered Environmental Health Specialist
Cal. Reg. #3940

RESIDENTIAL WASTE WATER DISPOSAL SYSTEM CONSULTANT

381 Bush Hill St., Thousand Oaks, CA 91320-4943
(805)499-5620/ fax: (805) 499-4580

March 16, 2000

OWNER/AGENT: J. Staff Architect / John Staff
MAILING ADDRESS: 2148-C Federal Ave., Los Angeles, Ca. 90025
PHONE NUMBER: (310) 477-9972
FAX NUMBER: (310) 477-9655

Subject Property: 24166 Malibu Road, Malibu

re: Submitted report for In-concept approval

At your request, I have conducted a record review and site evaluation to determine the feasibility of using a Standard or Alternate Sewage Disposal System on the subject property. Due to restrictions by the California Coastal Commission regarding bulkhead placement and space availability by planned dwelling a conventional septic tank, leach field and the required future area can not be installed on this property. The above restrictions will require using an alternative method of waste treatment to provide a cleaner effluent before discharge.

Plan review indicates the property will contain one single family dwelling having SIX (6) bedrooms. The dwelling will extend two stories above grade with a proposed Alternative septic below the dwelling being protected by a planned bulkhead. Based on review of all material submitted, the following criteria was used in designing the Alternative effluent treatment system and discharge area.

CRITERIA USED FOR ALTERNATE SEPTIC SYSTEM DESIGN:

Effluent Discharge rate and sizing:
System to be designed at a discharge rate of 150 gallons per day per person in the household. Calculated at a occupancy rate of two people in the master bedroom and one additional person per bedroom thereafter and/or the square footage required by the soil analysis and results expressed to the United States Department of Agriculture terminology.

Septic tank size:
Based on standard system design and size per the Uniform Plumbing Code by number of bedrooms and/or manufactures standards on number of bedrooms and discharge waste loads.

Holding/dosing tank sizing:
Based on dwelling occupancy discharge rate and planned use for 24 hours dosing schedule.

System control dosing panel and high water alarm system:
Industry standard for large single family dwellings requiring monitoring, dosing and alarms.

Based on the above criteria an alternative septic treatment system a ban designed for this dwelling. Listed below are the recommended I system. All items listed have been incorporated into the enclosed se for this project:

Effluent Discharge rate:
Based on six (6) bedrooms or 7 people a discharge rate of 1,050 g

Septic tank size:
Based on manufacture system design using a Micro-Feat 1.5 doub treatment tank having a required 2,500 gallon capacity.

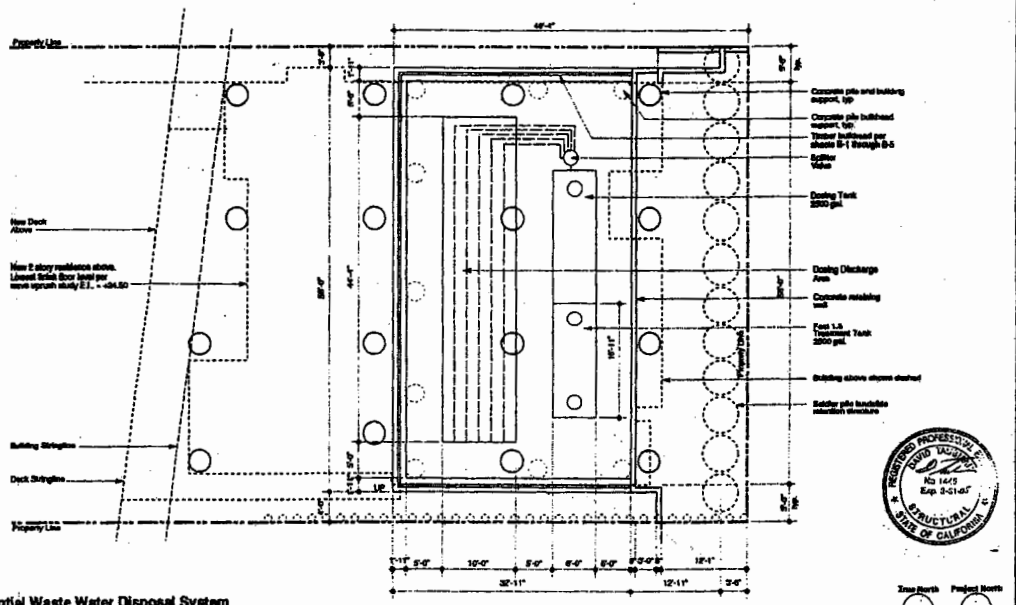
Holding/dosing tank sizing:
It is recommended that a 2,500 gallon single chamber holding/dosing tank be used. This tank size would allow for peak periods of use and storage during high effluent discharge. A Dual pump Effluent Biotube Vault will be used to dose the treated effluent from the dosing tank to the discharge area using a OSI Hydro-Splitter dosing to the discharge area. Unit to be installed with activation floats and timer controls to maintain a 24 hour pump cycle.

Effluent discharge area size:
Review of soil testing in the proposed discharge area indicate beach sand deposits at depth below the planned discharge area. A dosing rate in that type soil would require a rate of 2.5 gallons to 4.0 gallons per day per square foot. Using this calculation the effluent discharge leaching area would require a minimum 420 square feet of discharge surface. The only available area for the effluent discharge is located under the proposed dwelling in a area protected by a planned bulkhead. If soils other than beach sand deposits are found in the area of the planned discharge zone, they are to be removed and replaced by importing approved in fill material (ie; ASTMC-33 coarse sand) to within the required system depth to maintain a minimum four (4') foot separation above mean sea level or any groundwater plan.

Calculation for discharge area standard leach field:

Six bedroom house = 1,050 gallons of effluent discharge per day
at a dosing rate of 2.5 gallons per square foot = 1,050/2.5= 420 square feet of discharge area required.

System control dosing panel and high water alarm system:
The control panel to include;
1. Dosing control from dose tank to discharge area.
2. High/low water alarm in main septic tanks and dosing tank.
3. Offsite monitoring call-up system.



1 Residential Waste Water Disposal System

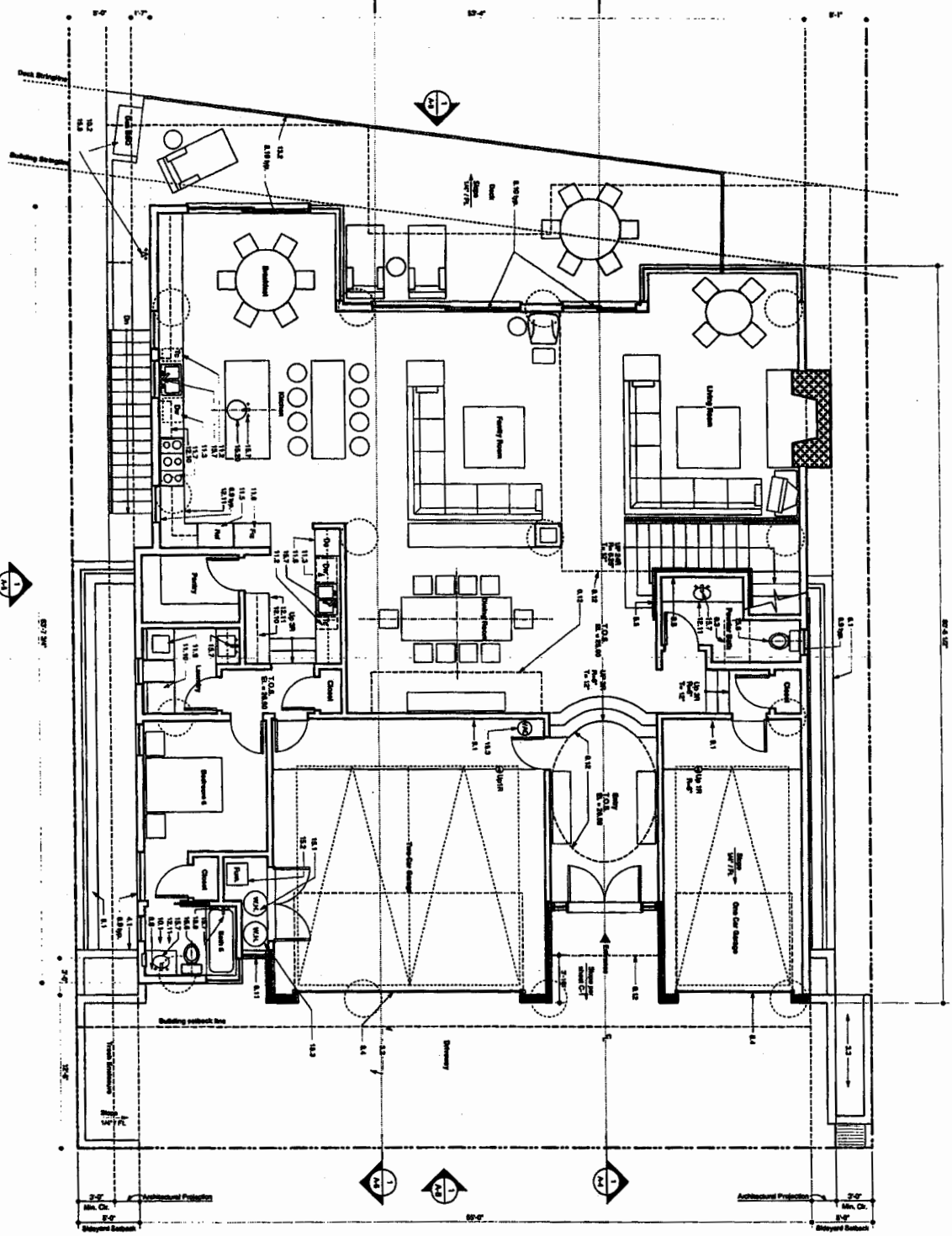
Scale: 1/8" = 1'-0"

RECEIVED
JAN 19 2003

Malibu Road Residence
24166 Malibu Rd.
Malibu, CA 90265

Residential Waste Water Disposal System

Date: 11/21/2002
Scale: As Shown
Drawn: JG
Phase: CD
Sheet: C-3


1 First Floor Plan
Scale: 1/4" = 1'-0"
Project North
Wall Types Legend
Keynote
Malibu Road Residence
24166 Malibu Rd.
Malibu, CA 90265
First Floor Plan
A-1
EXHIBIT NO. 8
APPLICATION NO. 4-02-166
First Floor Plan

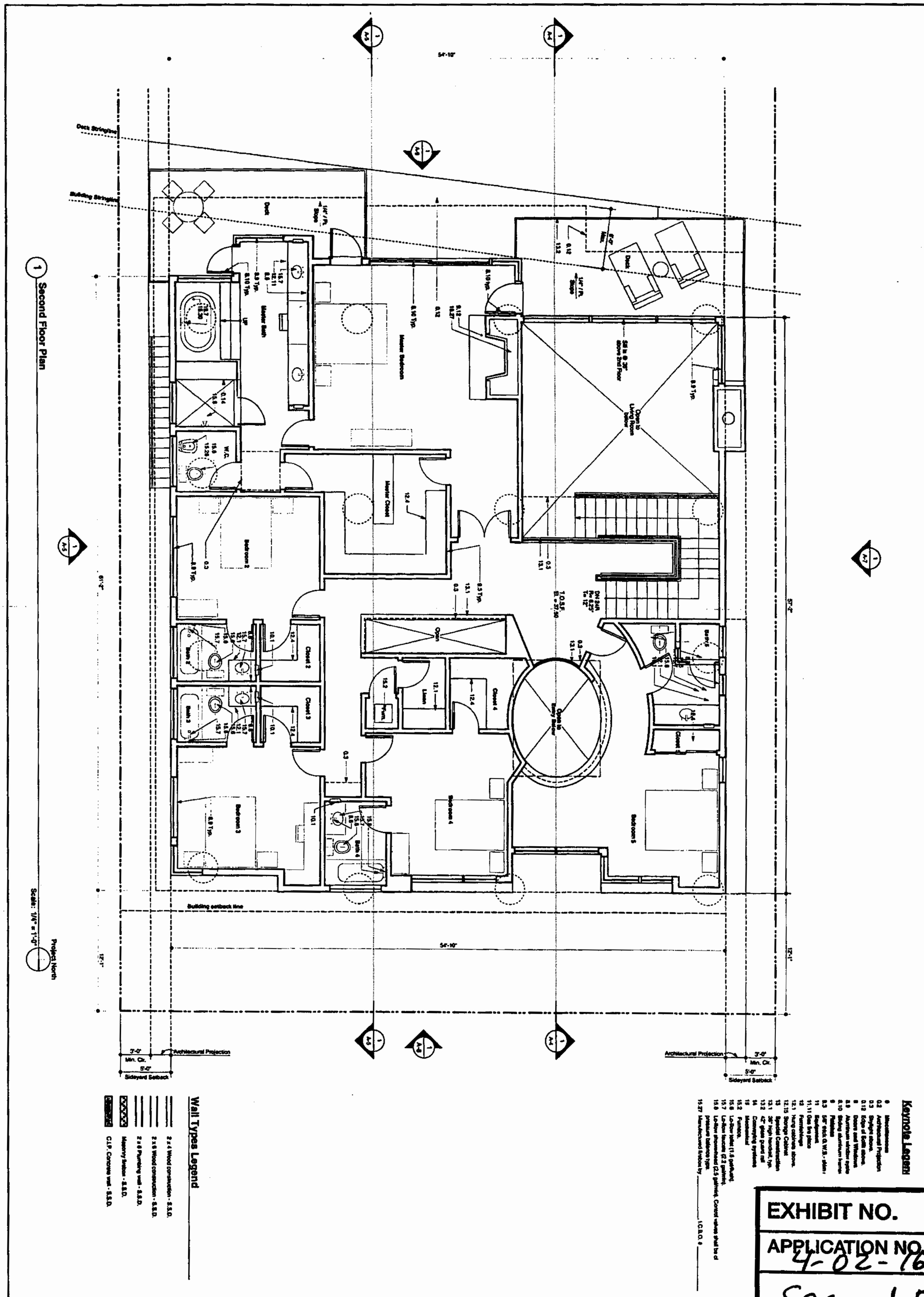
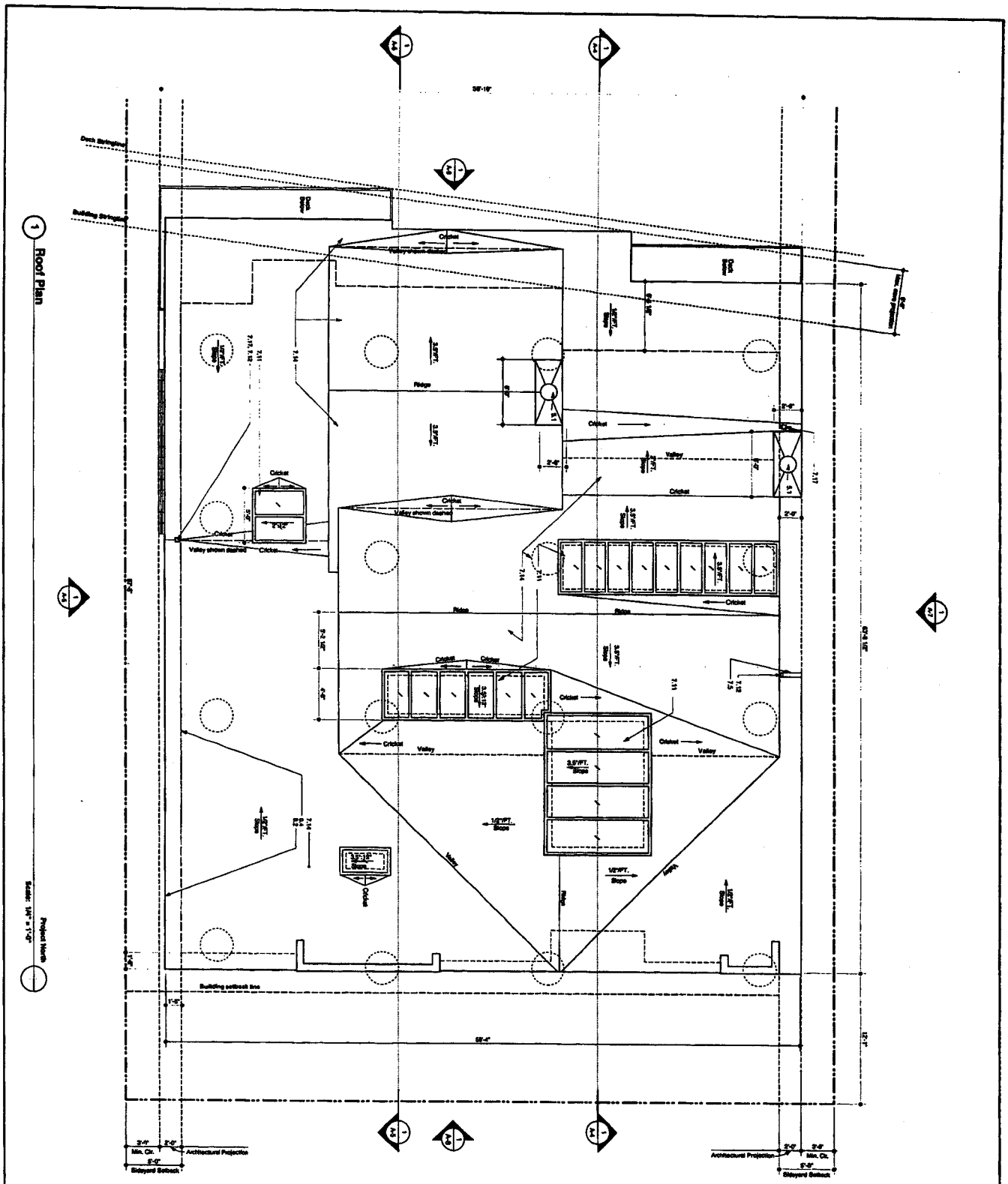


EXHIBIT NO. 9

APPLICATION NO. 4-02-166

Second Floor Plan

Sheet A-2	Date: 5/9/2002 Scale: As shown Drawn: TBC Phase: CD	Second Floor Plan	**Malibu Road Residence** **24166 Malibu Rd.** **Malibu, CA 90265**



Wall Types Legend

Keynote

EXHIBIT NO. 10

APPLICATION NO. 4-02-166

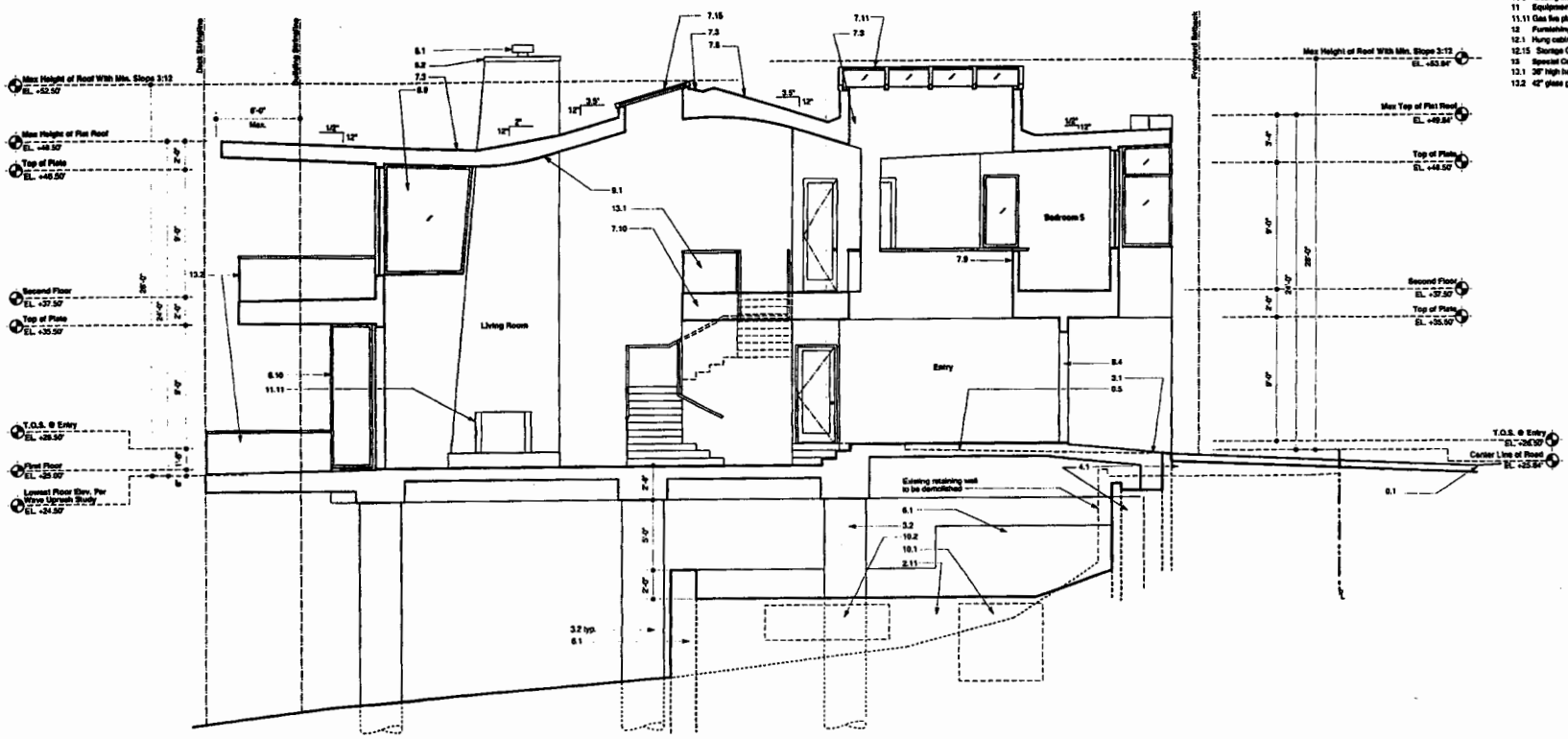
Roof Plan

Sheet A-3	Roof Plan	Malibu Road Residence 24166 Malibu Rd. Malibu, CA 90265		
Phase: CD				
Drawn: TRC				
Scale: As shown				
Date: 8/6/2002				

EXHIBIT NO. 11

APPLICATION NO. 4-02-166

Entry Section



1 Entry Section

Scale: 1/4" = 1'-0"

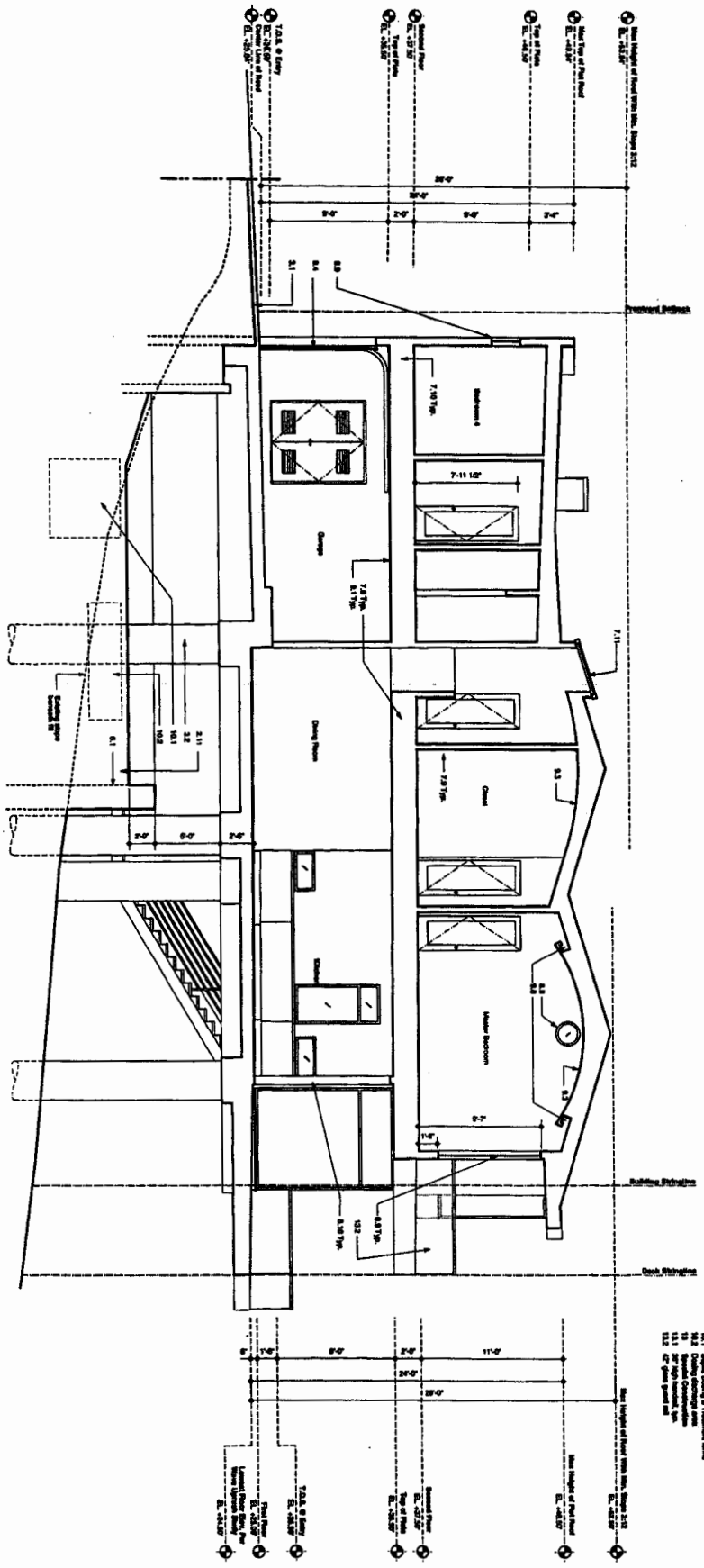
7.12 Standing seam metal roofing
7.15 Skylight
8 Doors and Windows
8.4 Power operated wood sectional overhead garage door-
paint grade, flush with two remote operators.
8.9 Aluminum window system (typ.)
8.10 Sliding aluminum framed doors (typ.)
9 Finishes
9.1 5/8" thick type G.W.B.- taped and painted typ.
10 Specialty
10.1 Septic Dosing & Treatment tanks
10.2 Dosing discharge area
11 Equipment
11.11 Gas fire place
12 Furnishings
12.1 Hung cabinets above.
12.15 Storage Cabinet
13 Special Construction
13.1 36" high handrail, typ.
13.2 42" glass guard rail

Revisions | By

Malibu Road Residence
24166 Malibu Rd.
Malibu, CA 90265

Entry Section

Date: 5/8/2002
Scale: As shown
Drawn: S/TBC
Phase: CD
Sheet
A-4



1 Garage Section

Scale: 1/4" = 1'-0"

EXHIBIT NO.	12
APPLICATION NO.	4-02-166
Garage Section	

Sheet	Phase	Drawn	Scale	Date
A-5	8	BRMC	As shown	6/6/2002

Garage Section

Malibu Road Residence
24166 Malibu Rd.
Malibu, CA 90265

ARCHITECTURE • INTERIORS • PLANNING

Revision	By

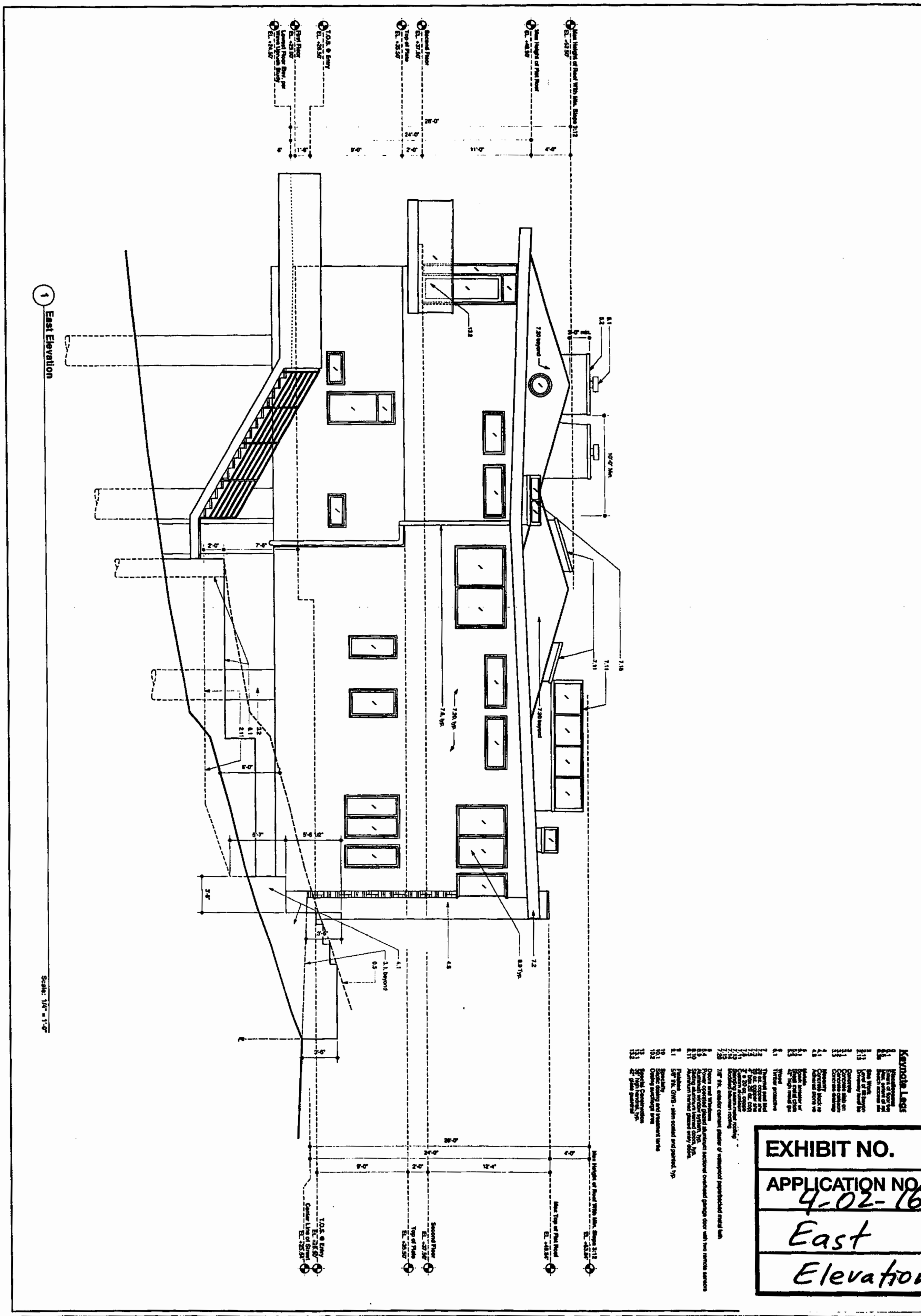


EXHIBIT NO. 13

APPLICATION NO. 4-02-166

East Elevation

Date:	5/8/2002
Scale:	1/4" = 1'-0"
Drawn:	TBC
Phase:	CD
Sheet	A-6

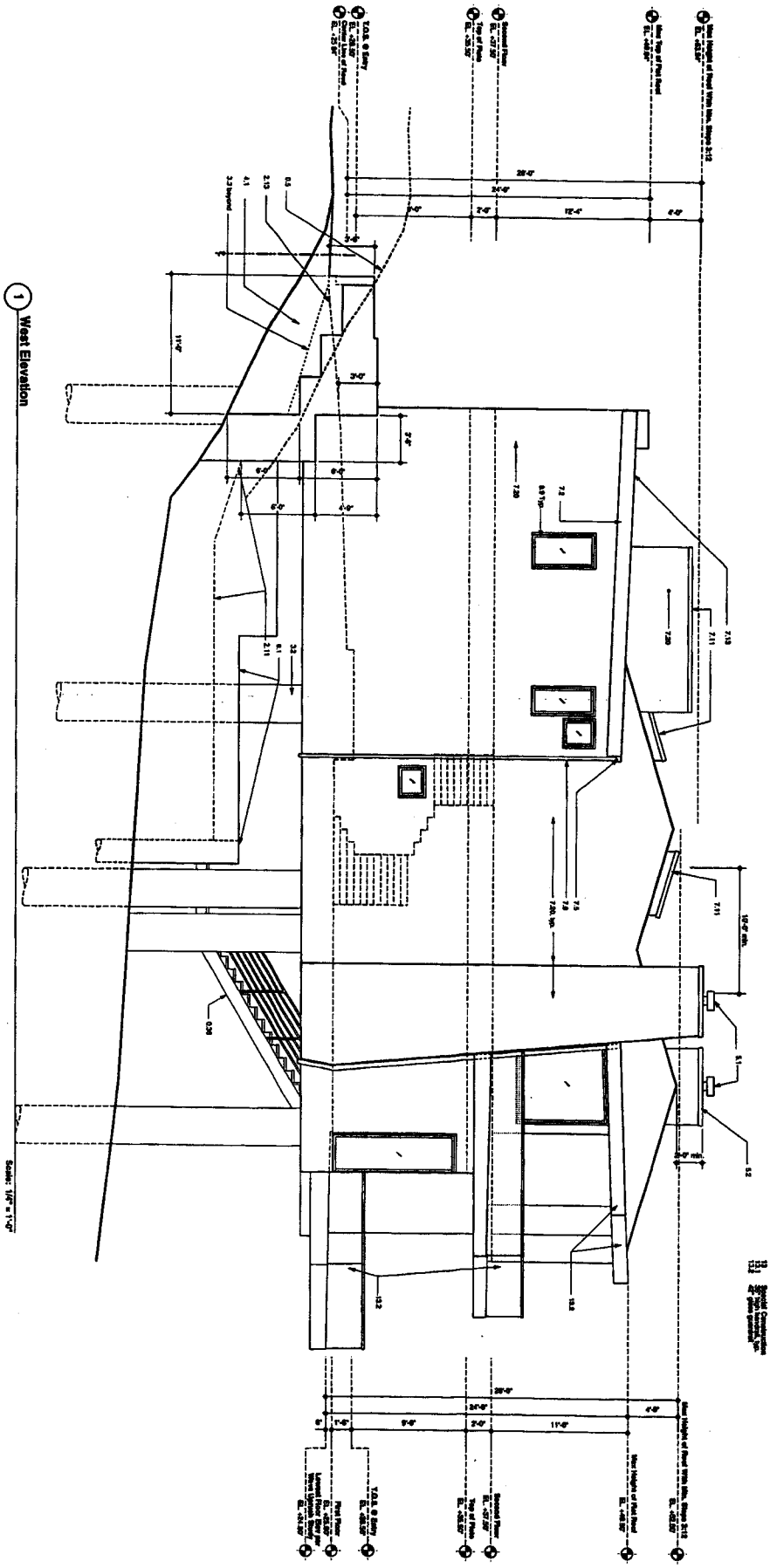
East Elevation

Malibu Road Residence
24166 Malibu Rd.
Malibu, CA 90265

ARCHITECTURE • INTERIORS • PLANNING

Revisions

By



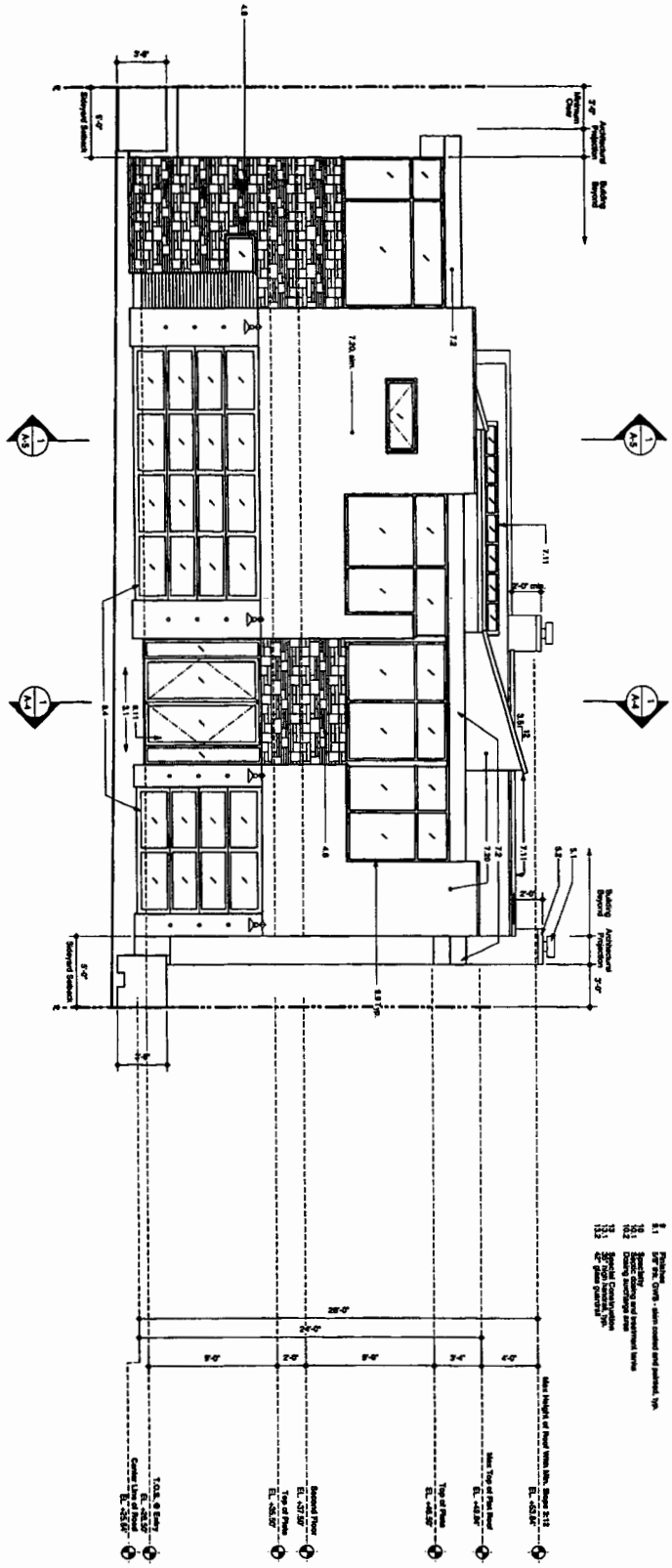
Keynote Legend

EXHIBIT NO. 14

APPLICATION NO. 4-02-166

West Elevation

Sheet: A-7	West Elevation	Malibu Road Residence 24166 Malibu Rd. Malibu, CA 90265	Revisions
Date: 8/8/2002 Scale: 1/4" = 1'-0" Drawn: TBC Project: 00			



1 North Elevation

Scale: 1/4" = 1'-0"

Keynote Legend

EXHIBIT NO. 15

APPLICATION NO. 4-02-166

North Elevation

Sheet: A-8	Date: 9/6/2002	North Elevation	Malibu Road Residence 24166 Malibu Rd. Malibu, CA 90265	Revisions
	Scale: 1/4" = 1'-0"			
	Drawn: TBC			
	Phase: CD			

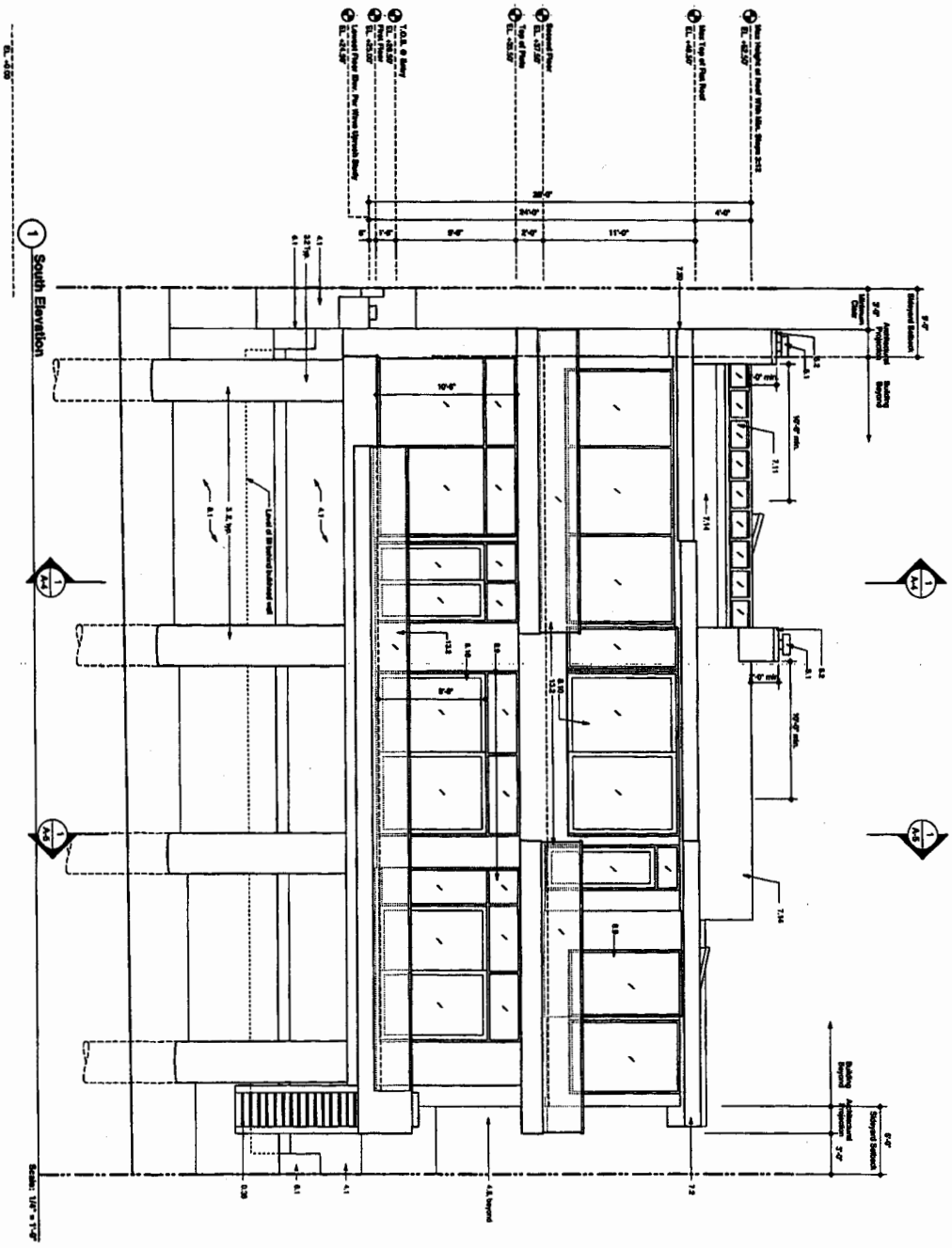


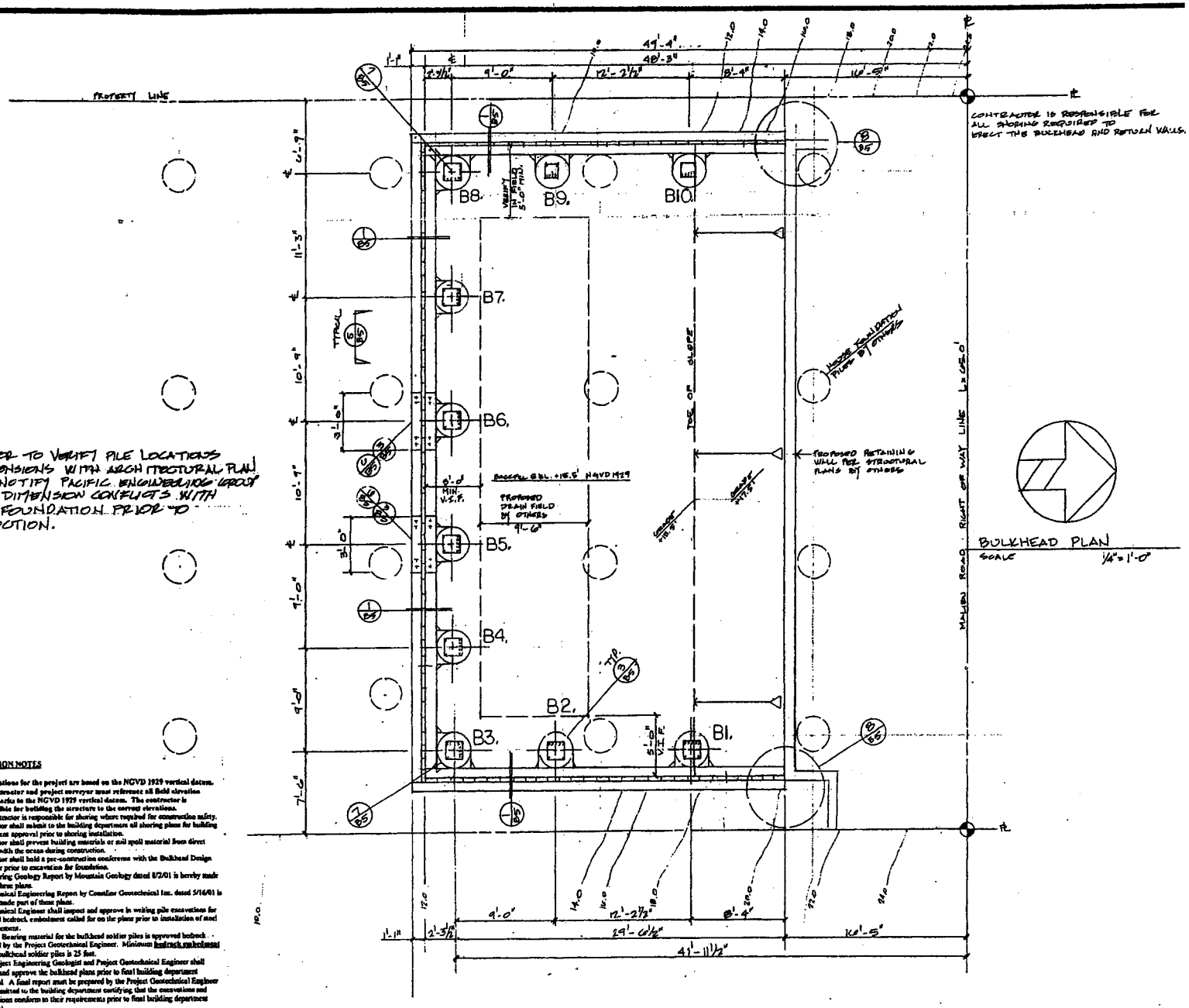
EXHIBIT NO. 16
APPLICATION NO. 4-02-166
South Elevation

Sheet	Date	Scale	Phase	Drawn	Job	South Elevation	Malibu Road Residence 24166 Malibu Rd. Malibu, CA 90265	Revisions
A-9	04/05/02	1/4" = 1'-0"	CD	TBC				

EXHIBIT NO. 17

APPLICATION NO. 4-02-166

Bulkhead Site Plan



BULKHEAD PLAN
SCALE 1/4" = 1'-0"

CONTRACTOR TO VERIFY PILE LOCATIONS AND DIMENSIONS WITH ARCHITECTURAL PLAN AND TO NOTIFY PACIFIC ENGINEERING GROUP OF ANY DIMENSION CONFLICTS WITH HOUSE FOUNDATION PRIOR TO CONSTRUCTION.

CONSTRUCTION NOTES

1. All elevations for the project are based on the NGVD 1929 vertical datum. The contractor and project surveyor must reference all field elevation benchmarks to the NGVD 1929 vertical datum. The contractor is responsible for building the structure to the correct elevations.
2. The contractor is responsible for shoring where required for construction safety. Contractor shall submit to the building department all shoring plans for building department approval prior to shoring installation.
3. Contractor shall prevent building materials or soil spoil material from direct contact with the ocean during construction.
4. Contractor shall hold a pre-construction conference with the Bulkhead Design Engineer prior to excavation for foundation.
5. Engineering Geology Report by Mountain Geology dated 8/2/01 is hereby made part of these plans.
6. Geotechnical Engineering Report by Coastline Geotechnical Inc. dated 5/16/01 is hereby made part of these plans.
7. Geotechnical Engineer shall inspect and approve in writing pile excavations for required bedrock embedment called for on the plans prior to installation of steel reinforcement.
8. Friction Bearing material for the bulkhead soldier piles is approved bedrock certified by the Project Geotechnical Engineer. Minimum bedrock embedment for the bulkhead soldier piles is 25 feet.
9. The project Engineering Geologist and Project Geotechnical Engineer shall review and approve the bulkhead plans prior to final building department approval. A final report must be prepared by the Project Geotechnical Engineer and submitted to the building department certifying that the excavations and foundations conform to their requirements prior to final building department approval

REGISTERED PROFESSIONAL ENGINEER REED KENNETH SCHMITT No. C043653 EXP. 9/31/03 CIVIL STATE OF CALIFORNIA

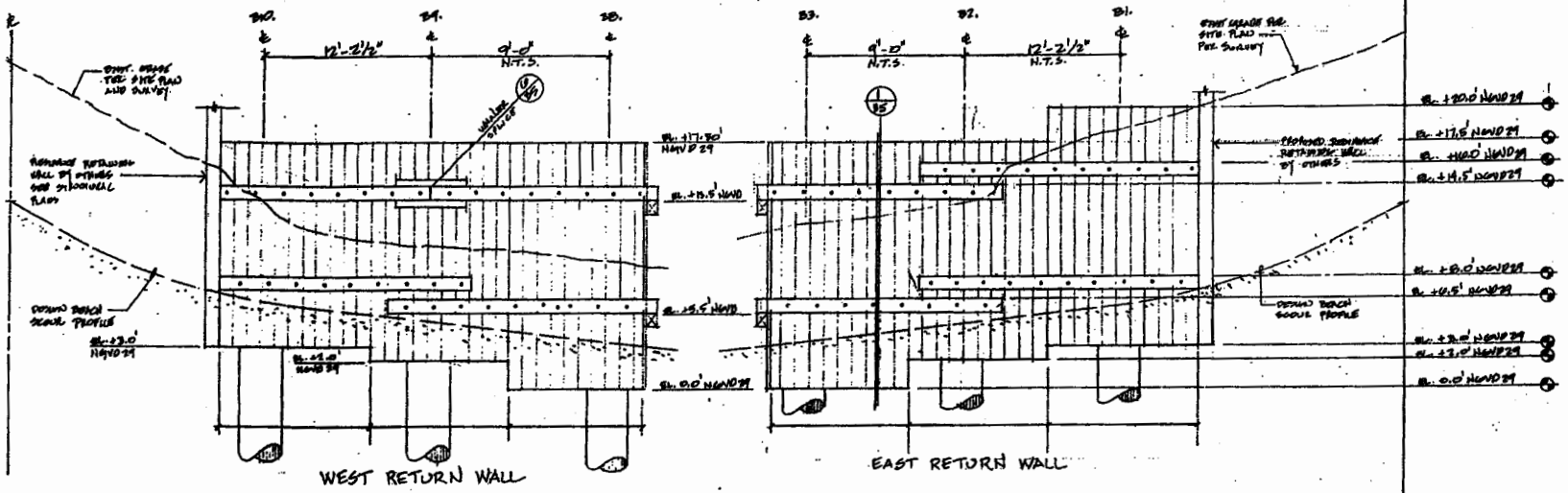
No.	Revision/Issue	Date
1	Bulkhead Location	12/02

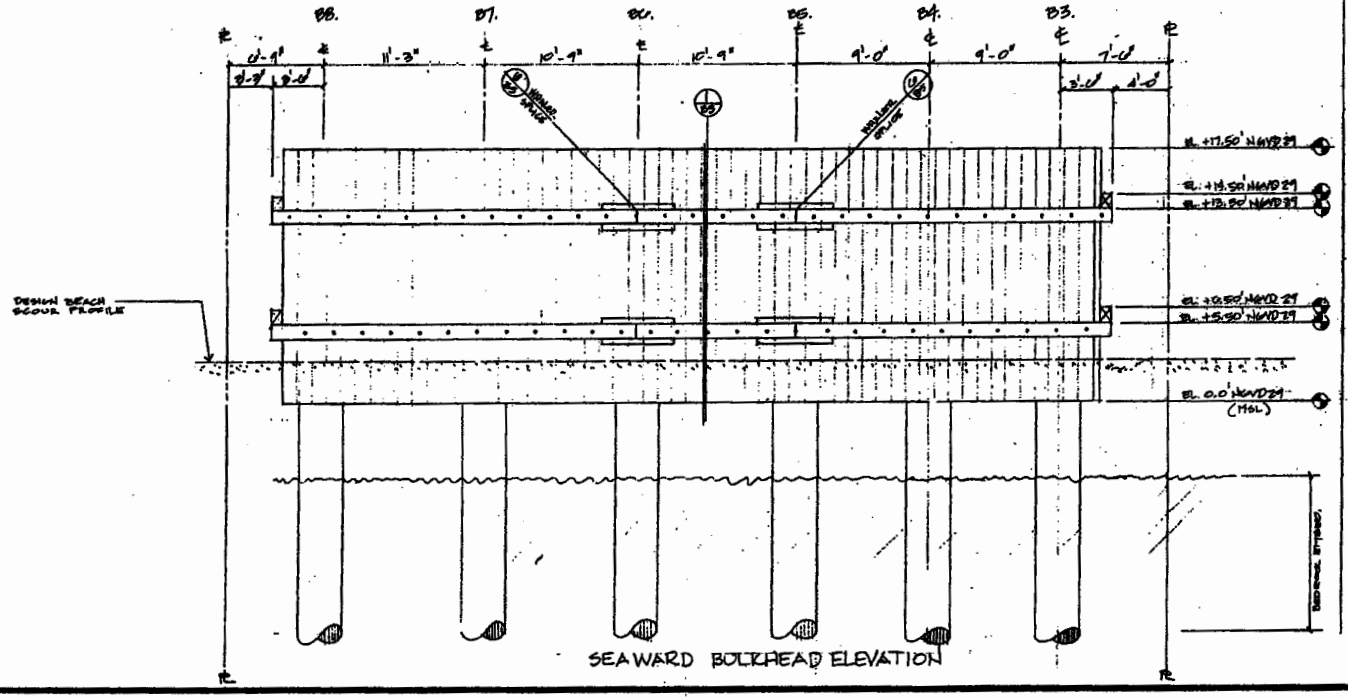
Firm Name and Address
PACIFIC ENGINEERING GROUP
24372 VANOWEN STREET SUITE 104
WEST HILLS, CALIFORNIA 91307
PHONE: 818.227.8050
FAX: 818.227.8081

Project Name and Address
NEW BULKHEAD
LAS INVESTMENTS
24168 MALIBU ROAD
MALIBU, CALIFORNIA 90265

Project 25110.LAS
Date AUGUST 12, 2002
Scale 1/4" = 1'-0"
Sheet B3 OF 5

EXHIBIT NO. 18
APPLICATION NO. 4-02-166
Bulkhead Elevations





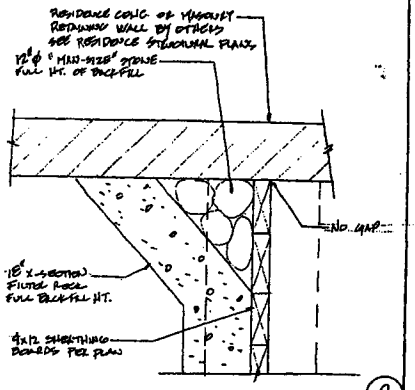
No.	Revision/Issue	Date
1	BUILDING LOCATION	12/02

PACIFIC ENGINEERING GROUP
24272 VANOWEN STREET SUITE 104
WEST HILLS, CALIFORNIA 91307
PHONE: 818.227.8085
FAX: 818.227.809

NEW BULKHEAD
LAS INVESTMENTS
24156 MALIBU ROAD
MALIBU, CALIFORNIA 90265

Project: 2011D_LAS
Date: AUGUST '2, 2003
Scale:
Sheet: B4
OF 5

EXHIBIT NO. 19
APPLICATION NO. 4-02-162
Bulkhead Details



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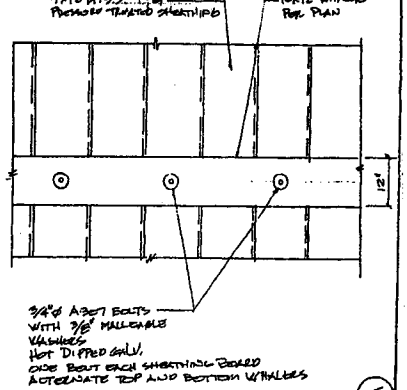

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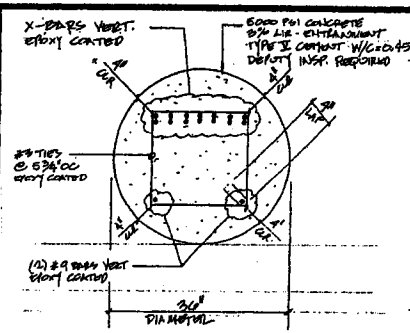
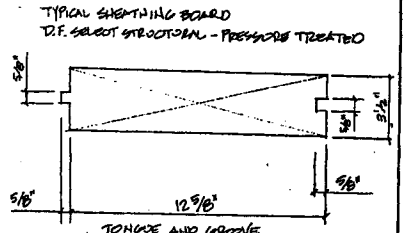


BULKHEAD SOLDIER PILES
SEE 1 FOR CORNER PILES B3 AND B8.

2

BULKHEAD PILE SCHEDULE

PILE	DIAMETER	BEDROCK EMBEDMENT	X-BARS	Y-BARS
B1.	30"	25'	(14) #9	N/A
B2.	30"	25'	(14) #9	N/A
B3.	30"	25'	(6) #9	(5) #9
B4.	30"	25'	(14) #9	N/A
B5.	30"	25'	(14) #9.	N/A
B6.	30"	25'	(14) #9	N/A
B7.	30"	25'	(14) #9	N/A
B8.	30"	25'	(6) #9	(5) #9
B9	30"	25'	(14) #9	N/A
B10.	30"	25'	(14) #9	N/A.



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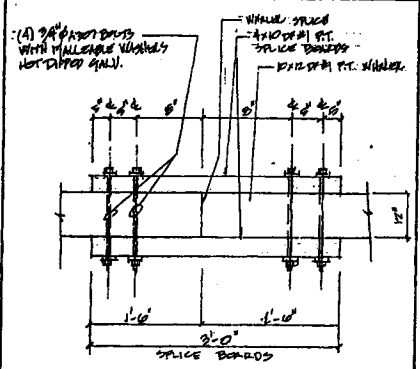
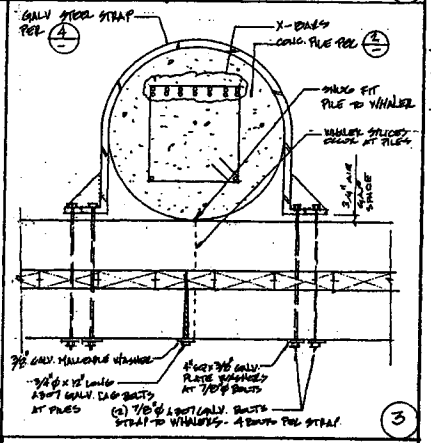


SEE BULKHEAD ELEVATIONS FOR LOCATION OF WHALER SPLICES

6



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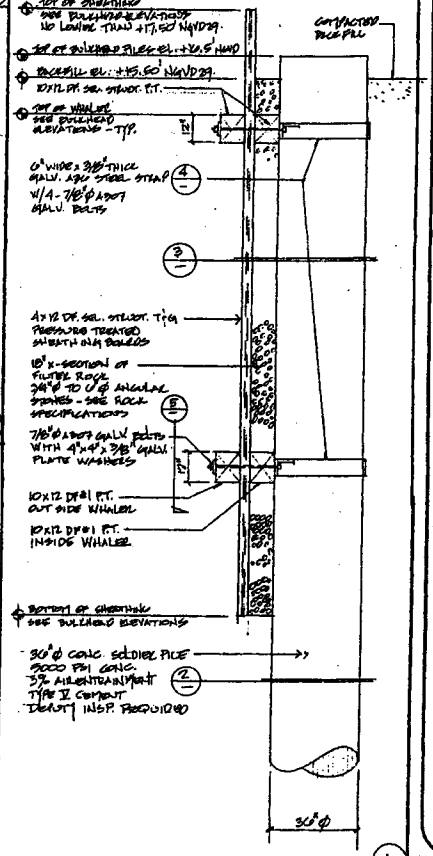

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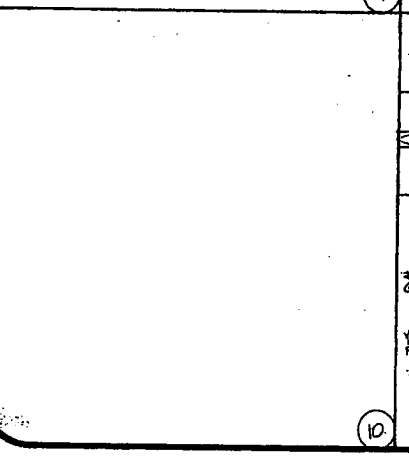

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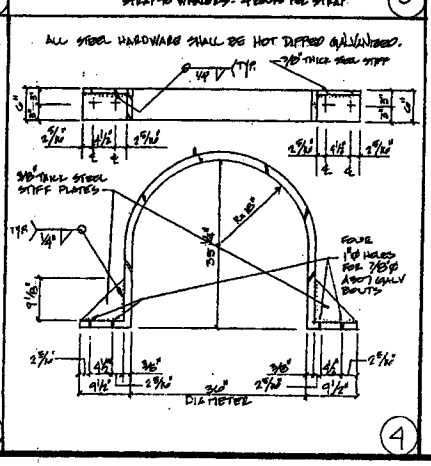


7

4

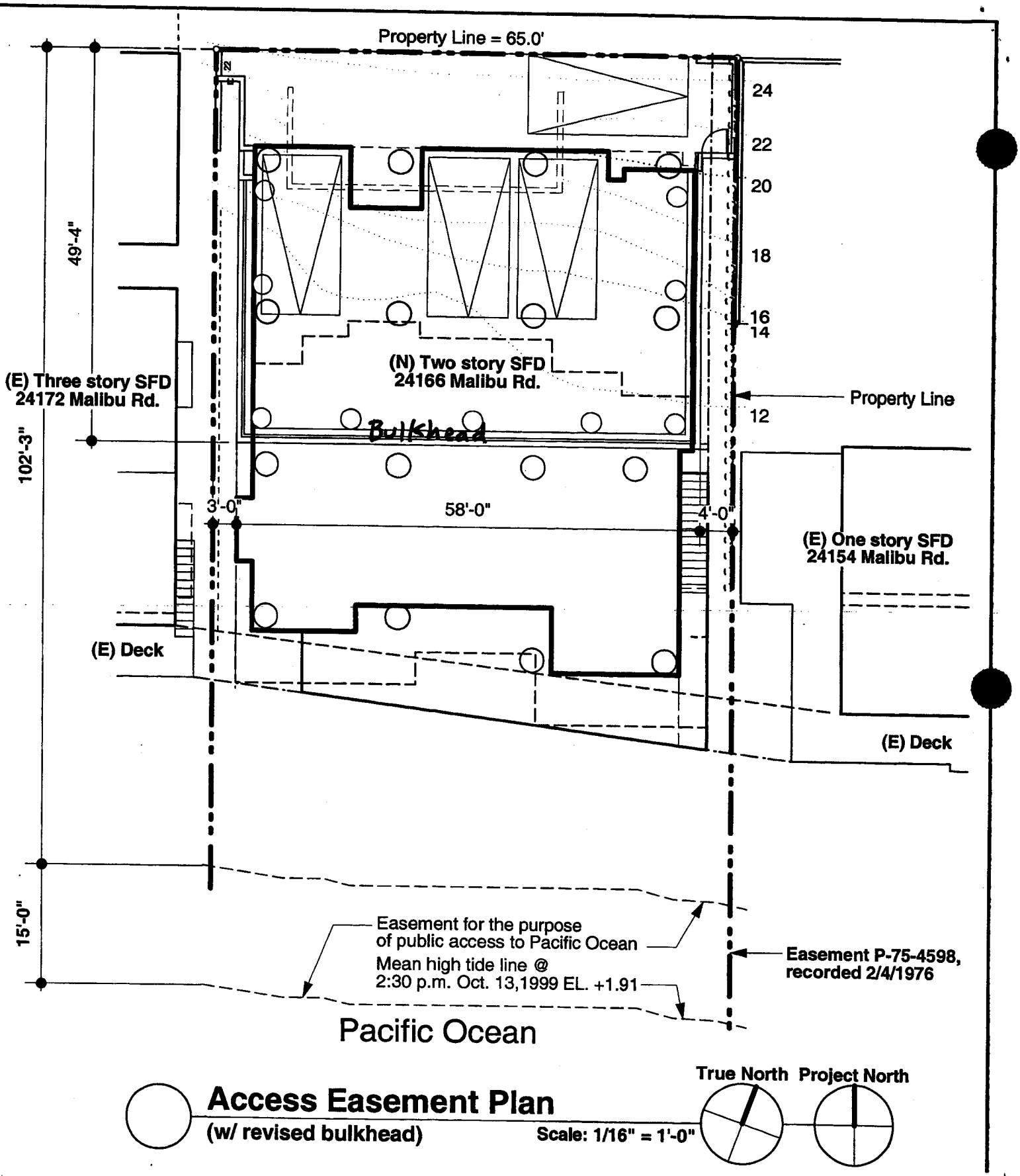
PACIFIC ENGINEERING GROUP
24372 VANOWEN STREET SUITE 104
WEST HILLS, CALIFORNIA 91307
PHONE: 818.227.8090
FAX: 818.227.8091

NEW BULKHEAD
LAS INVESTMENTS
24166 MALIBU ROAD
MALIBU, CALIFORNIA 90265

Project	2001-DLAS	Sheet	B5
Date	AUGUST 12, 2002		
Scale			OF 5.

No.	Revision/Issue	Date
1	BULKHEAD LOCATION	11/02

REGISTERED PROFESSIONAL ENGINEER REG. KENNETH L. DOMINGUEZ No. C049582 EXP. 3/31/03 CIVIL STATE OF CALIFORNIA



Access Easement Plan

(w/ revised bulkhead)

Scale: 1/16" = 1'-0"

Sheet **SK-4**	**Scale:** 1/16"=1'-0"	**Malibu Road Residence** **24166 Malibu Road** **Malibu, CA 90265**	2148 Los / tel. fax ARCH
	Date: 1/17/2003		
	Drawn: TBC		

EXHIBIT NO. 20
APPLICATION NO. 4-02-166
Access Easement Dedication

EXHIBIT NO. 21
APPLICATION NO. 4-02-166
Access Dedication
page 1 of 4

BK D6960 PG 326

2023

RECORDED IN OFFICIAL RECORDS OF LOS ANGELES COUNTY, CA
47 MIN. PAST 9 A.M. FEB 4 1976
Recorder's Office

RECORDING REQUESTED BY AND MAIL TO
NAME South Coast Commission
STREET P. O. Box 1450
CITY Long Beach, CA 90801

SPACE ABOVE THIS LINE FOR RECORDER'S USE

RECEIVED
JAN 13 2003
CALIFORNIA COASTAL COMMISSION
SOUTH CENTRAL COAST DISTRICT

FEE $6.00

DEDICATION

This Instrument, made this 6 day of January, 1976, by Wilford Phelps and Helen C. Phelps, his wife, both of the City/County of Los Angeles, State of California, hereinafter collectively referred to as "the Dedicator";

WHEREAS, pursuant to the California Coastal Zone Conservation Act of 1972, sections 27000 through 27650 of the California Public Resources Code, the Dedicator has made Application No. P-4598 to the California Coastal Zone Commission, South Coast Region, for the issuance of a permit for the development of *certain real property owned by the Dedicator; and*

WHEREAS, said Commission has determined to grant said application and issue a permit for the development of said real property subject to certain conditions among which are that the Dedicator shall give the public the privilege and right to pass and repass over a strip of Dedicator's said real property 15 feet in width measured landward from the line of mean high tide of the Pacific Ocean and that the Dedicator shall execute and deliver to said Commission an instrument in the form herein set forth.

NOW, THEREFORE, in consideration of the issuance of said development permit, Dedicator agrees to keep the following described portions of said real property, but no other portions thereof, open to the public for access to the Pacific Ocean and its shoreline for walking and agrees that Dedicator shall not construct any improvements on or in said public access area. The area subject to said public access is the following portion of the real property described in said application, to wit:

That certain real property in the County of Los Angeles, State of California, described as:

That certain strip of land 15 feet in width, measured landward from the line of mean high tide of the Pacific Ocean, of Parcel I: That portion of the Rancho Topanga Malibu Sequit,

(Legal description of the access area)

RECEIVED
JAN 19 1976
South Coast Regional Commission

RECORDING MEMO: POOR RECORD IS DUE TO QUALITY OF ORIGINAL DOCUMENT

as confirmed to Matthew Keller by Patent recorded in Book 1, Page 407 et seq., of Patents, in the office of the County Recorder of said county, particularly described as follows: Beginning at Engineer's Station 890 plus 91.06 in the center line of the 80 foot easement described in the deed to said State of California, recorded in Book 15228, Page 342, of Official Records of said county, in that course described in said deed as "North 73° 29' East 1715.31 feet"; thence South 16° 31' East 40 feet to the Southerly line of said 80 foot easement; thence along said Southerly line South 73° 29' West 815.5 feet to the TRUE POINT OF BEGINNING; thence continuing along said Southerly line South 73° 29' West 20 feet; thence South 16° 31' East to the line of ordinary high tide of the Pacific Ocean; thence Easterly

(continued on Page 4 infra, and by reference made a part hereof)

Nothing shall become payable to Dedicator, nor to the heirs or assigns of Dedicator, for the public privilege herein set forth and Dedicator consents to said privilege being administered by and duly constituted public agency.

Executed the date above written.

(Signed) Wilford Phelps (Signed) Helen C. Phelps

Wilford Phelps Helen C. Phelps
(Print Name) (Print Name)

STATE OF CALIFORNIA)
COUNTY OF Los Angeles) ss

On June 6, 1976, before me, the undersigned Notary Public, personally appeared Wilford and Helen C. Phelps and _____, known to me to be the persons whose names are subscribed to the foregoing instrument and acknowledged to me that they executed the same.

Witness my hand and official seal the day and year in this certificate first above written.

OFFICIAL SEAL
MARY ELLEN L. MORTON
NOTARY PUBLIC - CALIFORNIA
PRINCIPAL OFFICE IN
LOS ANGELES COUNTY
My Commission Expires June 20, 1979

Notary Public in and for the County of Los Angeles State of California
Mary Ellen L. Morton

MY COMMISSION EXPIRES JUNE 20 1979.

This is to certify that the interest in or license with reference to the real property conveyed by the dedication dated January 6, 1976, from Wilford Phelps and Helen C. Phelps to the public is hereby accepted by order of the California Coastal Zone Commission, South Coast Region, on January 19, 1976 (date), and said Commission consents to recordation thereof by its Executive Director, its duly authorized officer.

Date February 3, 1976,

By Robert F. Rooney
Chairman, California Coastal Zone Conservation Commission, South Coast Region.

STATE OF CALIFORNIA)
COUNTY OF Los Angeles) ss

On this 3 day of February, 1976, before me, the undersigned Notary Public, personally appeared ~~Before me~~ ROBERT F. ROONEY, known to me to be the Chairman of the California Coastal Zone Conservation Commission, South Coast Region, and known to me to be the person who executed the foregoing instrument on behalf of said Commission, and acknowledged to me that such Commission executed the same.

Witness my hand and official seal the day and year in this certificate first above written.

OFFICIAL SEAL
E. A. ELLERMAN
NOTARY PUBLIC - CALIFORNIA
LOS ANGELES COUNTY
My comm. expires AUG 26, 1978

E. A. Ellerman
Notary Public in and for the County of Los Angeles State of California

along said line of ordinary high tide to a line having a bearing of South 16° 31' East which passes through the true point of beginning; thence North 16° 31' West to the true point of beginning. EXCEPT any portion of said land lying outside of the patent line of the Rancho Topanga Malibu Sequit, as such lines existed at the time of the issuance of the patent, which was not formed by the deposit of alluvion from natural causes and by imperceptible degrees. PARCEL II: A parcel of land situate being a part of Rancho Topanga Malibu Sequit, as per map thereof recorded in Book 1 of Patents, Pages 414 to 416 inclusive, Records of said County, particularly described as follows: Commencing at Engineer's Station 890 plus 91.06 in a tangent bearing North 73° 29' East 1715.31 feet long of the 80 foot right of way of the State of California highway designated as Section A of Route 60, Los Angeles County, California, Division VII as shown on Sheet 1 of the County Surveyor's Map No. B-1260 on file in the office of the County Surveyor of said County; said station being North 16° 31' West 10 feet from engineer's center line station 903 plus 71.78 or the Easterly end of the tangent 2105.87 feet long of the 80 foot strip described in the final order of condemnation in Superior Court Case No. 135650, a certified copy of said final order being recorded in Book 9434, Page 338 Official Records of said County; thence South 16° 31' East 40 feet to a point in the Southerly line of said 80 foot right of way; thence along the Southerly line of said 80 foot right of way South 73° 29' West 835.5 feet to the point of beginning; thence along the Southerly line of said 80 foot right of way South 73° 29' West 45 feet to a point; thence South 16° 31 East 129 feet more or less to a point in the ordinary high tide line of the Pacific Ocean; thence Easterly along said ordinary high tide line 45 feet, more or less, to the intersection of said tide line and that line which bears South 16° 31' East from said point of beginning; thence North 16° 31' West 135 feet, more or less, to said point of beginning. EXCEPTING therefrom, as contained in the deed from Marblehead Land Company, recorded in Book 15962, Page 35, Official Records. A. All minerals, oil, petroleum, asphaltum, gas, coal and other hydrocarbon substances and riparian right, contained in, on, within and under said land but without right of entry. B. All littoral rights with the full and exclusive right to preserve and protect said littoral right. EXCEPT any portion of said land lying outside of the patent lines of the Rancho Topanga Malibu Sequit, as such lines existed at the time of the issuance of the patent, which was not formed by the deposit of alluvion from natural causes and by imperceptible degrees.

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STATE OF CALIFORNIA — GRAY DAVIS, *Governor*

CALIFORNIA STATE LANDS COMMISSION
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202

PAUL D. THAYER, *Executive Officer*
(916) 574-1800 FAX (916) 574-1810
California Relay Service From TDD Phone **1-800-735-2922**
from Voice Phone **1-800-735-2929**

Contact Phone: **(916) 574-1892**
Contact FAX: **(916) 574-1925**

August 5, 2002

EXHIBIT NO. 22
APPLICATION NO. 4-02-166
State Lands
Comm. Letter
Page 1 of 2

File Ref: SD 2002-07-09.4

C.J. Staff III, A.I.A.
J. Staff Architect
2148 C. Federal Avenue
Los Angeles, CA 90025

Dear Mr. Staff:

SUBJECT: Development Project Review for Construction of One New Single Family Residence with Bulkhead at 24166 Malibu Road, Malibu

This is in response to your request on behalf of your client, LAS Investments, for a determination by the California State Lands Commission (CSLC) whether it asserts a sovereign title interest in the property that the subject project will occupy and whether it asserts that the project will intrude into an area that is subject to the public easement in navigable waters.

The facts pertaining to your client's project, as we understand them, are these:

Your client proposes to construct one new single-family residence at 24166 Malibu Road in the Amarillo Beach area of Malibu. The project also includes the construction of a bulkhead retaining wall with concrete piles, new septic system and a below grade slide retention structure. Based on the June 26, 2002 Site Plan submitted by you, the proposed new residence/deck appears to be in conformance with string lines established by the residences/decks on either side. The bulkhead is to be located well underneath the residence. This is a well-developed stretch of beach with numerous residences both up and down the coast.

We do not at this time have sufficient information to determine whether this project will intrude upon state sovereign lands. Development of information sufficient to make such a determination would be expensive and time-consuming. We do not think such an expenditure of time, effort and money is warranted in this situation, given the limited resources of this agency and the circumstances set forth above. This conclusion is based on the location of the property, the character and history of the adjacent development, and the minimal potential benefit to the public, even if such an inquiry were to reveal the basis for the assertion of public claims and those claims were to be pursued to an ultimate resolution in the state's favor through litigation or otherwise.

Accordingly, the CSLC presently asserts no claims that the project intrudes onto sovereign lands or that it would lie in an area that is subject to the public easement in navigable waters. This conclusion is without prejudice to any future assertion of state ownership or public rights, should circumstances change, or should additional information come to our attention.

Our files also reflect an existing Deed Restriction that was required by the California Coastal Commission (CCC) in conjunction with their approval of CDP No. P-75- 4598 (24166 Malibu Road). This easement, signed by Wilford and Helen Phelps, was recorded as Document Number 2023, Book D6960 Page 326, on February 4, 1976, Official Records of Los Angeles County. The dedication provides that "*the Dedicator shall give the public the privilege and right to pass and repass over a strip of Dedicator's said real property 15 feet in width measured landward from the line of mean high tide of the Pacific Ocean and that the Dedicator shall execute and deliver to said Commission an instrument in the form herein set forth. Now, therefore, in consideration of the issuance of said development permit, Dedicator agrees to keep the following described portions of said real property, but no other portions thereof, open to the public for access to the Pacific Ocean and its shoreline for walking and agrees that Dedicator shall not construct any improvement on or in said public access area.*"

We anticipate that the CCC, in consideration of your application for a coastal development permit will address the effect, if any, of this deed restriction on the proposed project.

If you have any questions, please contact, Jane E. Smith, Public Land Management Specialist, at (916) 574-1892.

Sincerely,

Robert L. Lynch, Chief
Division of Land Management

cc: Barry Hogan, City of Malibu