

**CALIFORNIA COASTAL COMMISSION**

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Filed: 12/17/02  
49th Day: 02/04/03  
180th Day: 06/15/03  
Staff: AM/MS-LB  
Staff Report: 05/22/03  
Hearing Date: 06/11/03  
Commission Action:

**W9d & W9e**

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**STAFF REPORT: REGULAR CALENDAR**  
**AND DE NOVO ACTION ON APPEAL**

**APPLICATION NUMBER:** 5-02-334      **APPEAL NUMBER:** A-5-PPL-02-276

**APPLICANT:** Ben Leeds

**AGENT:** Humberto Capiro

**PROJECT LOCATION:** 17633 Castellammare Drive, Pacific Palisades (Los Angeles County)

**PROJECT DESCRIPTION:** Construction of a three-level, 3,100 square foot, 36-foot high single family home with five parking spaces and a one-story accessory building supported by 48, 24-inch concrete reinforced piles and grade beams, a spa, fountain, irrigated landscaping on a 4,289 square foot vacant bluff lot. The project also includes 850 cubic yards of cut, 50 cubic yards of fill, four horizontal drains and four vertical dewatering wells, two inclinometers (one of which is after-the fact), and removal of a wood retaining wall along the Castellammare property line.

**LOCAL APPROVAL:** City of Los Angeles CDP No. ZA -2001-1780

**SUMMARY OF STAFF RECOMMENDATION**

Staff is recommending that the Commission **grant** a de novo permit (A-5-PPL-02-276) and a coastal development permit (5-02-334) with conditions for the proposed development with special conditions. The proposed project is located on a site that is on the upper corner of a relatively large composite landslide that is well known, having been previously mapped by the U.S. Geological Survey. An ancient landslide, with a slide plane approximately 45 feet below the surface in the area of the parcel, is overlain by an active or recently active landslide with a shallower slide plane, at approximately 15-30 feet depth. The composite slide encompasses the entire parcel, as well as several other parcels to the east and south, as well as portions of both Posetano and Castellammare Drive. The City has required, and the applicant has agreed, to consider the entire slide mass on and above the subject property to be active and to design foundation systems that can resist any slide movement. The City further required that

the applicant install a minimum of four horizontal drains (hydraugers) and four vertical de-watering wells, as well as two slope inclinometers to monitor potential landslide movement prior to grading. The staff senior geologist and the senior engineer have reviewed the reports and correspondence relating to the site and the proposed project engineering measures to address its difficulties. (See pages 20 and following and Exhibits 11 and 12). They have concluded that the site can be developed safely as long as the applicant (1) follows the consultants' recommendations, (2) conforms with the conditions imposed by the City of Los Angeles Department of Building and Safety, and (3) the applicant and all subsequent owners continue to maintain the dewatering wells, pumps and horizontal drains (hydraugers) designed to remove ground water from the site. Staff therefore is recommending approval with special conditions that require that the applicant (1) monitor the site for one rainy season as required by the City, and, if the City requires a changed foundation design, to return to the Commission for an amendment; (2) follow the recommendations of the geotechnical consultants and City of Los Angeles Department of Building and Safety in constructing the foundation system, monitoring and drainage both before and after construction.

The staff also recommends that the applicant assume responsible for maintaining the pumps and drains necessary to remove ground water; agree to do reconstructive grading and take other remedial measures if the slide materials underneath the house move. The staff also recommends that the applicant assume the risk of the development; and take measures to prevent the addition of more moisture to the soils from a proposed spa, and fountain. Staff is recommending additional special conditions requiring the preparation and execution of drainage and erosion control plans, the installation of post-construction BMPs, and of landscaping comprised of native, and low water use, non- invasive vegetation, and to harvest seeds of locally native plants from the property prior to construction so that the particular genetic heritage of the plants in this location will not be lost. Staff also recommends that the applicant provide final revised plans consistent with the City's action removing a second story "gazebo" from the accessory structure. The applicant objects to only one special condition, which requires the installation of a second water meter on the spa and to construct it with a "double bottom " to prevent leakage of water into the soils of the lot. The applicant states that he would prefer to move the spa to the roof level terrace rather than the installation of a meter. He contends that then, if the spa leaked it would leak into the house, and be immediately detected. However, the roof level terrace, although it is at roof level, is not the roof of the enclosed structure, but instead is located on the same level as the roof, but behind the structure, supported by caissons, but above natural soils. The applicant agrees with the other recommended conditions. **See Page Four for motions.**

**SUBSTANTIVE FILE DOCUMENTS:**

- 1) VPL Consulting, Inc, 10/28/02, Structural Calculations Site Plan, 17633 Castellammare Dr., Pacific Palisades.
- 2) VPL Consulting, Inc., 5/14/01, Structural Calculations New Residence, 17633 Castellammare Dr., Pacific Palisades.

- 3) MEC/Geotechnical Engineers, Inc., "Response to State Geologist Questions and EDM Questions for 17633 Castellammare Dr., Pacific Palisades." 12/04/02
- 4) City of Los Angeles Local Coastal Development Permit No. ZA-2001-1780 (CDP).
- 5) City of Los Angeles Planning Department, Administrative Record for Local Coastal Development Permit No. ZA-2001-1780 (CDP)
- 6) City of Los Angeles, Department of Building and Safety, 2002, "Tract Castellammare (MP 113-3/8), Block 10, Lot 6, 17633 Castellammare Drive; Log # 35867-01", 5 p. Review letter dated 17 April 2002 and signed by D. Hsu, D. Prevost and P. Challita.
- 7) City of Los Angeles, Department of Building and Safety, 2002, "Tract Castellammare (MP 113-3/8), Block 10, Lot 6, 17633 Castellammare Drive; Log # 35867-01", 5 p. follow up
- 8) City of Los Angeles, Department of Building and Safety, 2002, "Tract Castellammare (MP 113-3/8), Block 10, Lot 6, 17633 Castellammare Drive; Log # 35867", 1 p. Review letter dated 11 June 2002 and signed by D. Hsu and D. Prevost.

Note: These and additional materials on which the staff relied in preparing this recommendation are listed in the Continued Substantive File Documents found in Appendix A.

#### **JURISDICTIONAL NOTE:**

The proposed project is located within the City of Los Angeles, which has elected to issue coastal development permits before certification of a Local Coastal Program (LCP), as allowed by Section 30600(b) of the Coastal Act. Section 30601 of the Coastal Act and 13307 of the California Code of Regulations provide that in cities that issue coastal development permits in the advance of certification of an LCP, any development located within 300 feet of the inland extent of the beach, within 100 feet of streams or wetlands and all major public works projects must receive a coastal development permit directly from the Commission in addition to the coastal development permit that was approved by the City. In addition, all City issued permits are appealable. In the City of Los Angeles, the area in which two permits are required is commonly called the "Dual Permit Area". This project is located on the face of a coastal bluff, in the "Dual Permit Area." Therefore, the development requires a coastal development permit from both the Commission and the City.

The City approved a local coastal development permit for the proposed project, which was appealed to the Commission on August 13, 2002 (Appeal No. A-5-PPL-02-276). On September 9, 2002 the Commission opened and continued the appeal hearing. On November 5, 2002, the Commission found that a Substantial Issue exists with the City's approval of the proposed project, thus nullifying the local coastal development permit approval. This application number 5-02-334 was submitted to the Commission on August 13, 2002 but was deemed incomplete until December 17, 2002, when the applicant provided additional geotechnical information that staff had requested.

Because there is no certified LCP for the area, the standard of review for the proposed development is the Chapter 3 policies of the Coastal Act.

In order to minimize duplication, Commission staff has combined the de novo appeal permit (A-5-PPL-02-276) and coastal development permit application (5-02-334) into one staff report and one Commission hearing. However, the Commission's approval, modification, or disapproval of the proposed project will require two separate Commission actions: one action for the coastal development permit application and one action for the de novo appeal permit. Staff is recommending that the Commission approve both permits with special conditions.

### **STAFF RECOMMENDATION**

The staff recommends that the Commission adopt the following resolutions to **APPROVE** Coastal Development Permits A-5-PPL-02-276 and 5-02-334 and with special conditions. Staff recommends two **YES** votes, which would result in the adoption of the following resolutions and findings. Affirmative votes by a majority of the Commissioners present are needed to pass the motions.

### **FIRST MOTION:**

*"I move that the Commission approve with special conditions Coastal Development Permit A-5-PPL-02-276 per the staff recommendation as set forth below."*

#### **I. Resolution: Approval with Conditions of A-5-PPL-02-276**

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 provisions of Chapter 3 of the California Coastal Act of 1976 and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3 of the Coastal Act. 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.

### **SECOND MOTION:**

*"I move that the Commission approve with special conditions Coastal Development Permit 5-02-334 per the staff recommendation."*

## II. Resolution: Approval with Conditions of 5-02-334

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 provisions of Chapter 3 of the California Coastal Act of 1976 and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3 of the Coastal Act. 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.

## III. 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 this permit is reported to the Commission. 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 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.

**IV. SPECIAL CONDITIONS****1. PRE-CONSTRUCTION MONITORING REPORTS.**

A. Prior to beginning construction of the proposed single family dwelling and accessory structure the applicant shall monitor the slope inclinometer installed on the property as recommended in the consultant's report dated April 15, 2002 and as required by the City Department of Building and Safety in its April 17, 2002 letter as modified by its June 11, 2002 follow-up letter. Monitoring, as required by the City of Los Angeles, shall be continued through the rainy season (October 15-March 31) prior to construction. A minimum of six readings shall be taken. Upon approval of the reports by the City of Los Angeles Department of Building and Safety, the reports and all comments by the Department of Building and Safety shall be provided to the Executive Director for review and approval. The applicant shall also provide reports covering the entire rainy season previous to the date of issuance of the permit and all inclinometer and any other ground movement reports collected between May 17, 2002 and July 1, 2003 for the review and approval of the Executive Director. Throughout construction, all monitoring reports required in the City Review Letter shall be provided within ten days of their completion to the Executive Director, along with, when and if such become available, recommendations and comments by the City of Los Angeles Department of Building and Safety.

If the City, on the basis of the monitoring, determines that changes in the proposed foundations are necessary, the applicant shall submit an amendment application incorporating the revised design for the Commission's review. No changes to the foundation design shall be carried out without Commission approval of an amendment to the coastal development permit

**2. CONFORMANCE OF CONSTRUCTION PLANS TO CITY GEOTECHNICAL REVIEW LETTERS**

A. Prior to issuance of the permit the applicant shall provide, for the review and approval of the Executive Director, all final construction drawings and drainage plans. All final design and construction, grading, drainage devices and foundation plans shall have been reviewed and approved by the Grading Division of the City of Los Angeles Department of Building and Safety. The plans shall conform to all recommendations put forth in the geologic report by MEC dated 8 November 2001 as well as all requirements of the City of Los Angeles Department of Building and Safety, Soils/Geologic review letter of April 17, 2002 signed by Dana Prevost and Pascal Challita, as modified by the City review letter dated June 11, 2002 signed by Dana Prevost and David Hsu.

B. The monitoring, construction methods and foundation system including the installation of the five rows of piles, the permanent and temporary retaining walls, pumps, hydraugers and dewater devices shall conform to and include all

requirements and specifications of the City review letter cited above.

C. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall be carried out without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

### **3. REVISED FINAL PLANS**

Prior to issuance a the coastal development permit, the applicant shall submit final revised architectural plans, including site plans, floor plans and exterior elevations, consistent with the preliminary plans submitted with this coastal development permit and with the requirements of ZA-2001-1780 (CDP) incorporating height changes imposed by the City of Los Angeles (removal of the rear yard gazebo), and limiting the height of the rear yard retaining/property line wall to 42 inches above the centerline of Posetano Road, and to be consistent with all requirements of this permit.

### **4. EROSION, DRAINAGE AND POLLUTED RUNOFF CONTROL**

A. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit, for review and approval of the Executive Director, a final plan for erosion, drainage and polluted runoff control, including supporting calculations. The plan shall be prepared by a licensed engineer and shall incorporate Best Management Practices (BMPs) designed to control the volume, velocity and pollutant load of storm water leaving the construction and developed site. The plan shall be reviewed and approved by the consulting engineering geologist to ensure the plan is consistent with geologist's recommendations. In addition to the specifications above, the plan shall demonstrate that:

#### **1. During Construction:**

- (a) Erosion on the site shall be controlled to avoid adverse impacts on adjacent properties and public streets.
- (b) Clearing and grading activities should be timed to avoid the rainy season whenever possible. If grading takes place during the rainy season ((October 15-March 31)), the plan shall specify that temporary erosion control measures shall be used during construction (e.g., temporary sediment basins [including debris basins, desilting basins or silt traps], temporary drains and swales, sand bag barriers, silt fencing, stabilize any stockpiled fill with geofabric covers or other appropriate cover, install geotextiles or mats on all cut or fill slopes, close and stabilize open trenches as soon as possible).
- (c) Only areas essential for construction shall be cleared.



- (d) During the rainy season, (October 15- March 31) bare soils shall be stabilized with non-vegetative BMPs as soon as possible, and within five days of clearing or inactivity in construction. If seeding or another vegetative erosion control method is used, it shall become established within two weeks.
- (e) Construction entrances shall be properly graded to prevent runoff from construction site. The entrances should be stabilized immediately after grading and frequently maintained to prevent erosion and control dust and tracking of mud offsite.
- (f) Runoff shall be intercepted above disturbed slopes and conveyed to a permanent channel or storm drain by using earth dikes, perimeter dikes or swales, or diversions. Use check dams where appropriate.
- (g) Fuel and vehicle maintenance staging areas shall be located away from all drainage courses and designed to control runoff. Proper maintenance of equipment and installation of proper stream crossings will further reduce pollution of water by these sources.
- (h) Spill prevention and control measures shall be developed and implemented.
- (i) Sanitary facilities shall be provided for construction workers.
- (j) Equipment and machinery shall be maintained and washed in confined areas specifically designed to control runoff. Thinners or solvents shall not be discharged into sanitary or storm sewer systems. Washout from concrete trucks shall be disposed of properly at an off-site location.
- (k) Adequate disposal facilities shall be provided for solid waste, including excess asphalt, produced during construction. Properly recycle or dispose of lunchtime trash and other debris at the end of every construction day.
- (l) During construction, the applicant shall obtain approval from the City of Los Angeles Department of Building and Safety for any dewatering necessary during construction and:
  - (i) shall install filters on the dewatering system,
  - (ii) shall prevent discharge of water pumped from the site onto nearby property, and
  - (iii) shall direct all discharges into paved City street and storm drains.

2. Post Construction:

- (a) Permanent erosion and drainage control measures shall be installed to ensure the stability of the site, adjacent properties, and public streets.
- (b) All drainage from the lot shall be directed toward the street and away from the bluff slope directly into the City's storm drain system.



- (c) Runoff shall be conveyed off site in a non-erosive manner.
- (d) Pesticide, herbicide and fertilizer use shall be eliminated or minimized.
- (e) The Drainage and Erosion Control Plan shall include, at a minimum, the following components:
  - (i) A narrative report describing all temporary run-off and erosion control measures to be used during construction and all permanent erosion control measures to be installed for permanent erosion control.
  - (ii) Any temporary erosion control measures should grading or site preparation cease for a period of more than 30 days, including but not limited to: stabilization of all stockpiled fill, access roads, disturbed soils and cut and fill slopes with geotextiles and/or mats, sand bag barriers, silt fencing; temporary drains and swales and sediment basins. All disturbed areas shall be stabilized (e.g., seeded with native grass species and include the technical specifications for seeding the disturbed areas). These temporary erosion control measures shall be monitored and maintained until grading or construction operations resume.
  - (iii) A site plan showing the location of all temporary erosion control measures. The plan shall delineate the areas to be disturbed by grading or construction activities and shall include any temporary access roads, staging areas and stockpile areas. The natural areas on the site shall be clearly delineated on the project site with fencing or survey flags. These erosion control measures shall be required on the project site prior to or concurrent with the initial grading operations and maintained throughout the development process to minimize erosion and sediment from the runoff waters during construction. All sediment shall be retained on-site unless removed to an appropriately approved dumping location either outside the coastal zone or to a site within the coastal zone permitted to receive fill.
  - (iv) A schedule for installation and removal of the temporary erosion control measures.
  - (v) A site plan showing the location of all permanent erosion and drainage control measures.
  - (vi) A schedule for installation and maintenance of the permanent erosion and drainage control measures.
  - (vii) A written review and approval of all erosion and drainage control measures by the applicant's engineer and/or geologist.
  - (viii) A written agreement indicating where all excavated material will be disposed and acknowledgement that any construction debris disposed within the coastal zone requires a separate coastal development permit.

3. Long Term Plan, the applicant shall develop a long-term plan for disposal of (1) water discharged from the spa during maintenance or drainage and (2) excess water discharged from the hydraugers and sump pumps on site. The plan shall demonstrate that:
  - (a) Overflow drainage from the spa shall be directed to the sanitary sewer. The applicant shall not use chemicals in the spa that are incompatible with the sewer system.
  - (b) During development of the dewatering wells, the extracted ground water shall be pumped into a settling tank to allow sediment in the water to settle prior to discharge of the water to the storm drain system. Turbid water shall not be discharged to the storm drain system.
  - (c) The water from the sump pumps shall be directed to a secure, enclosed storm drain, but not discharged to the street. The applicant, during maintenance of the sump pumps shall check for greases and oils. If a significant amount of grease or oil is present the applicant shall report the situation to the City of Los Angeles Department of Public Works before discharging into the storm drain.

B. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

## **5. ASSUMPTION OF RISK, WAIVER OF LIABILITY AND INDEMNITY**

By acceptance of this permit, the applicant acknowledges and agrees (i) that the site may be subject to hazards from landslide activity, erosion and/or earth movement (ii) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

## **6. LANDSCAPING PLAN**

A. Prior to issuance of a coastal development permit, the applicant shall submit two sets of landscaping plans, prepared by a licensed landscape architect or a qualified resource specialist, for review and approval by the Executive Director.

The landscaping plan shall be reviewed and approved by the geotechnical engineering and geologic consultants to ensure that the plans are in conformance with the consultant's recommendations, and by the Fire Department of the City of Los Angeles. The plans shall identify the species, extent, and location of all plant materials and shall incorporate the following criteria:

B. Salvaging of native seeds and cuttings. Within ten days of the approval of the permit the applicant shall salvage native seeds and cuttings from the site to save a sample of seed from this hillside and to reserve locally native seeds and cuttings so that it can be used for on-site landscaping.

C. Within (60) days of receipt of the certificate of occupancy for the residence all graded and disturbed areas on the subject site shall be planted and maintained for erosion control purposes. To minimize the need for irrigation, all landscaping shall consist primarily of locally native and low water use plants of the coastal bluff scrub and coastal sage scrub community as listed by the California Native Plant Society, Santa Monica Mountains Chapter, in their document entitled *Recommended List of Plants for Landscaping in the Santa Monica Mountains*, dated February 5, 1996. Invasive, non-indigenous plant species, identified in the "Recommended List", which tend to supplant native species, shall not be used. Non-indigenous species shall be concentrated adjacent to the structures. All plants used on the site shall be "low water use" plants as defined by the University of California Cooperative Extension and the California Department of Water Resources in their joint publication: *Guide to Estimating Irrigation Water needs of Landscape Plantings in California*. To the extent possible, the applicant shall salvage and reinstall existing native plants found on site. The plan shall include, at a minimum, the following components:

1. A map showing the type, size, and location of all plant materials that will be on the developed site, topography of the developed site, and all other landscape features, and
2. A schedule for installation of plants, and
3. A separate list showing the common and Latin name of the plant species to be used and the approximate amount of coverage of each plant and whether it is native to the Santa Monica Mountains or a low water use introduced plant, and the source of the information.

D. The actual planting shall follow the following criteria:

1. All cut and fill slopes shall be stabilized with planting and/or jute matting at the completion grading. Such planting shall be adequate to provide 80 percent coverage within three years, and this requirement shall apply to all disturbed soils. The applicant shall agree to maintain the jute matting until enough plant coverage is established to prevent siltation from the site.

2. Introduced plants shall occupy no more than 20 percent of the planted area of the property.
3. No permanent irrigation shall be installed. Temporary irrigation necessary for establishment of the planting may occur, except that no automatic sprinkler shall be used. Irrigation shall be monitored to prevent over-watering and ensure that there is no runoff. In order to protect water quality, no herbicides or pesticides shall be employed on the property.
4. Plantings will be maintained in good growing condition throughout the life of the project and, whenever necessary, shall be replaced with new plant materials to ensure continued compliance with applicable landscape requirements.

**E. Monitoring.** Five years from the date of the receipt of the Certificate of Occupancy for the residence the applicants shall submit for the review and approval of the Executive Director, a landscape monitoring report, prepared by a licensed landscape architect or qualified resource specialist, that certifies the on-site landscaping is in conformance with the landscape plan approved pursuant to this Special Condition. The monitoring report shall include photographic documentation of plant species and plant coverage.

If the landscape monitoring report indicates the landscaping is not in conformance with or has failed to meet the performance standards specified in the landscaping plan approved pursuant to this permit, the applicant, or successors in interest, shall submit a revised or supplemental landscape plan for the review and approval of the Executive Director. The revised landscaping plan must be prepared by a licensed Landscape Architect or a qualified Resource Specialist and shall specify measures to remediate those portions of the original plan that have failed or are not in conformance with the original approved plan.

**F.** The permittee shall undertake development in accordance with the final approved plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Coastal Commission approved amendment to the coastal development permit, unless the Executive Director determines that no amendment is required.

## **7. SPA/FOUNTAIN LEAK PREVENTION PLAN**

Prior to Issuance of the Coastal Development Permit, the applicant shall submit, for the review and approval of the Executive Director, a written plan to mitigate for the potential of leakage from the proposed spa and fountain. The plan shall, at a minimum:

1. Provide a separate water meter for the spa and fountain to allow separate monitoring of the water usage for the spa/fountain and the rest of the home;
2. Identify the materials, such as plastic linings or specially treated cement, to be used to waterproof the underside of the spa/fountain to prevent leakage into the structure and the adjacent soils. The plan shall include information regarding past success rates of these materials;
3. The spa and fountain shall be installed using two layers of such material, with a drain between the layers.
4. Identify methods used to control spa/fountain drainage and to prevent infiltration from drainage and maintenance activities into the soils of the applicant's and neighboring properties;
5. Identify normal and expected water consumption by the spa/fountain;
6. Provide an automatic cut-off of water to the spa/fountain if water use in a three-hour period exceeds the normal and expected flow. The cut-off shall have an override control of up to two hours to allow for the maintenance and cleaning of the spa/fountain.
7. The applicant's engineer shall inspect the liner before the concrete is poured and shall inspect the connections before the installation of any decks or coverings

- B. The permittee shall undertake development in accordance with the final approved plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Coastal Commission approved amendment to the coastal development permit, unless the Executive Director determines that no amendment is required.

**8. ASSUMPTION OF RESPONSIBILITY FOR MAINTENANCE OF EARTH BETWEEN THE PILINGS.**

A. Prior to issuance of the permit, the applicant shall provide for the review and approval of the Executive Director (1) evidence of a written agreement with the City of Los Angeles stating that by acceptance of this permit, that the applicant and/or or his successor in interest assumes responsibility for the maintenance of the earth between the pilings in the event the landslide that is present adjacent to and under the house moves, and (2) evidence that he has recorded a covenant with the City that states his or her obligation to undertake this responsibility. Maintenance includes removal of earth obstructing public ways, rebuilding slopes, planting and removal of surplus earth as required by the City of Los Angeles agencies with responsibilities for the safety of public ways or of private structures. This responsibility shall remain in force and effect for the life of the structure permitted in this action. Any buyer of the property, by purchasing the property, shall also assume the responsibility for maintenance of the slide

debris that moves on, or under the house and the adjacent downslope street.

B. The permittee shall undertake development in accordance with the final approved plan. Any proposed changes to the agreement with the City shall be reported to the Executive Director before execution. No changes in the agreement with the City shall occur without a Coastal Commission approved amendment to the coastal development permit, unless the Executive Director determines that no amendment is required.

**9. STRUCTURAL APPEARANCE (PILE EXPOSURE)**

A. Prior to issuance of the permit the applicant shall submit a plan for the review and approval of the Executive Director to address the potential visual impacts of the pilings in the event that the pilings and grade beams are exposed and visible from Pacific Coast Highway as a result of earth movement or other circumstances. The applicant shall agree in writing to carry out the approved plan, which shall include:

1. Coloring the concrete in the seaward-most row of pilings so that it will match the surrounding soils. The dye should be added in such a way that the result would be a natural, mottled appearance. If any piling is exposed, the applicant shall immediately dye or conceal such pilings.
2. Installation of a low a "breakaway" skirt wall to cover exposed earth and/or pilings.

B. The permittee shall undertake development in accordance with the final approved plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Coastal Commission approved amendment to the coastal development permit, unless the Executive Director determines that no amendment is required.

**10. DISPOSAL OF SOIL EXPORTED FROM SITE**

A. The applicant shall dispose of all excess soils from the site in an approved disposal site either (a) located outside the coastal zone or (b) if located inside the coastal zone, that has a valid coastal development permit from the Coastal Commission.

B. The permittee shall undertake development in accordance with the final approved plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Coastal Commission approved amendment to the coastal development permit, unless the Executive Director determines that no amendment is required.

**11. DEWATERING WELLS AND DRAINAGE SYSTEM MAINTENANCE AND NOTIFICATION OF SUCCESSOR IN INTEREST.**

A. Prior to issuance of the coastal development permit the applicant shall provide for the review and approval of the Executive Director a maintenance manual addressing methods for controlling the level of groundwater on the site and the reasons such program is necessary. The manual shall also contain a list of all devices and pumps that need to be maintained to assure stability of the site, and the reasons for their presence, and shall be consistent with all provisions of the City of Los Angeles Department of Building and Safety approval letters of April 17, 2002 and June 11, 2002. Prior to submittal, the manual shall be reviewed and approved by the City of Los Angeles Department of Building and Safety to assure its consistency with the aforementioned approval letters addressing continued maintenance of the drain system.

- (1) The approval shall indicate that the discharge is consistent with all applicable orders from and agreements with the Regional Water Quality Control Board. The manual shall provide instructions for maintaining the dewatering wells, pumps, hydraugers and surface drainage system. It shall discuss the role of water diversion, pumping, low water use landscaping and other methods for reducing the amount of ground water on the site and controlling runoff.
- (2) It shall reiterate the requirements of the City Department of Building and Safety regarding the discharge from the dewatering wells and the maintenance of any off-site filters. The applicant shall provide all successors in interest a copy of the manual as a part of transfer to the property.
- (3) The owner of the lot or its agents shall maintain the devices as described in the manual.
- (4) The applicant shall provide the Executive Director with copies of any monitoring reports and any changes in the requirements of the RWQCB order.
- (5) Any change in maintenance program shall be reported to the Executive Director of the Commission prior to execution. The Executive Director shall to determine whether an amendment to the coastal development permit is required.

B. The permittee shall undertake development in accordance with the final approved plan. Any proposed changes to the approved final plan and or maintenance requirements shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Coastal Commission approved amendment to the coastal development permit, unless the Executive Director determines that no amendment is required.



## **12 PLAN NOTES**

A. The text of Special Conditions 2 (Conformance of Construction Plans To Geotechnical Reports), 4 (Erosion, Drainage and Polluted Runoff Control), 6 (Landscaping Plan); 7 (Spa/Fountain Leak Prevention) 8 (Assumption of Responsibility for Maintenance of Earth between the Pilings) and 9 (Structural Appearance Pile Exposure) of this permit shall be recited as plan notes on the final working drawings and any language or graphic depiction that is inconsistent with these conditions of approval shall be removed from the plans.

B. The permittee shall undertake development in accordance with the final approved plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Coastal Commission approved amendment to the coastal development permit, unless the Executive Director determines that no amendment is required.

## **13. DEED RESTRICTION**

**PRIOR TO 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.

## **V. FINDINGS AND DECLARATIONS**

The Commission hereby finds and declares:

### **A. PROJECT DESCRIPTION**

The applicant proposes to construct a three-level, 3,100 square foot single family home with five parking spaces and a separate, one-story accessory building (recreation room), a spa in a side yard, a terrace and a fountain on a 4,289 square foot vacant lot. Forty-eight caissons up to 70 feet below finished grade are proposed to support the two structures. Grade beams were required by the City of Los Angeles to provide horizontal stability. In addition, four horizontal drains and four vertical de-watering wells are proposed to reduce ground water on the site; the latter proposed to be drained by sump pumps. As part of the geologic investigation, the applicant has installed an inclinometer that will monitor the movement of the active landslide on and surrounding the subject property. A second inclinometer will be installed within two weeks after construction begins. The applicant's geotechnical consultant and the City of Los Angeles Department of Building and Safety required the foundation system, de-watering wells, and inclinometers in an extensive review over the past 12 years.

The site is located on lot 6, block 10 in the Castellammare tract of Pacific Palisades, on the face of steep coastal bluff (Exhibits 1 through 4). The site is one of the few remaining vacant parcels in this area, approximately 240 feet inland of Will Rogers State Beach, and is highly visible from Pacific Coast Highway and Will Rogers State Beach below. Posetano Road borders the property on the upslope side and Castellammare Drive on the down slope side.

The Castellammare area of Pacific Palisades is a prominent coastal bluff stretching from Sunset Boulevard to Surfview Drive. Pacific Coast Highway was constructed at the toe of this bluff, between the bluff face and the beach. Unlike most coastal bluffs in Southern California, this bluff face has undergone extensive development. In the mid 1920's several streets were constructed parallel to Pacific Coast Highway following the contours of the bluff, which are lined with one to four-level single-family homes. These roads (namely Castellammare Drive, Posetano Road, Revello Drive, Stretto Way, and Porto Marina Way) were graded on the face and top of the coastal bluff (Exhibits 1, 2, and 3). There are many ancient landslides on the bluff face and canyon sides, with more recent slides nested on top of them. Within the last thirty years several landslides along the bluff face and canyon sides have led to loss of property and life.<sup>1</sup>

Currently, the Castellammare area is developed with one to four-level single-family homes. A few open areas remain along of the bluff from Sunset Boulevard to Surfview Drive. Typically, these remaining open areas were left undeveloped due to landslides. In some cases, portions of the bluff were developed then destroyed by landslides, creating open areas. For example, a large landslide temporarily blocked Tramonto

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<sup>1</sup> Pacific Palisades Area - Report on Landslide Study; U.S. Army Corps of Engineers and U.S. Geological Survey; September 1976

Drive and permanently destroyed a number of homes and large sections of Revello Drive, Posetano Road, and Castellammare Drive. This slide was located approximately 230 feet east (down coast) of the subject site. This slide is shown as landslide number 123 of 3 and on the location map, Exhibit 4.

## B. HAZARDS

The Coastal Act requires that development assure stability and structural integrity. Section 30253 of the Coastal Act states in part:

*New development shall:*

- 1) *Minimize the risk 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 coastal bluffs.*

### Project's Relation to Active and Historic Landslide

The project lies in an area of active and historic landslides (Exhibit 3 and 4). As demonstrated in a Report on Landslide Study Pacific Palisades Area, September 1976, by the U.S. Army Corps of Engineers and the U.S. Geological Survey, and in later studies (McGill) relied upon by the project consultants, an historic landslide covers the site and a large area in the immediate vicinity. In addition a newer, active landslide overlays the older material and covers a large portion of the applicant's lot. The applicant's geotechnical report indicates that the active slide comprises a large portion of the surface of the lot and is 16 feet deep. The report includes the following description of the slide, which is shown on a map on Exhibit 4. On the exhibit, the term "slide 'Ys'" represents the more recent landslide area on the subject property.

"The sliding began as a small surficial failure of a steep road cut in Castellammare Drive in 1941. In 1946, a separate debris slide about 90 feet wide occurred on the western side of "slide 'Ys'". By 1958 this failure enlarged to become a 90 foot wide slump along Castellammare Drive with a low main scarp about 10 feet from Posetano Road. At this time there were seeps at the toe of both slides, a slight bulge in Castellammare Drive, and a prominent crack 100 feet long in the curved part of Posetano Road. In early 1969 the entire area slid, and the crack in Posetano Road became a new main scarp approximately six feet high. Castellammare Drive cracked and buckled. Following this, the City attempted to stabilize the landslide by installing wooden poles approximately 35 feet into the slide along both sides of Castellammare Drive and the south side of Posetano Road." (Pacific Palisades Area - Report on Landslide Study; U.S. Army Corps of Engineers and U.S. Geological Survey; September 1976)

The Pacific Palisades area has a long history of natural disasters, some of which have caused catastrophic damages (Exhibit 3). Hazards common to this area include landslides, and wildfires. The lot in question is located on the face of a sloping coastal bluff (Exhibits 1 through 4). Total relief across the property is approximately 50 feet with the slopes encountered on the property ranging from 2:1 (horizontal to vertical) to almost vertical. The applicant's geotechnical reports indicate that the subject property lies on both an active and ancient landslide (Exhibit 4 through 6). The project consists of the construction of a single family home, an unattached recreation room, terrace, spa, and fountain. 850 cubic yards of cut and 50 cubic yards of fill are required to create a "stepped" building foundation. The applicant has not described plans for disposal of excess soils, which are addressed in Special Condition 10. There is one Coastal Commission permitted soil disposal site in the Pacific Palisades, Potrero Canyon. If the developer does not dispose of excess soils at a Commission approved site in the coastal zone, he is required to dispose of soils at an approved site outside the coastal zone.

The applicant has provided geology and soils reports from the consulting firms of MEC/Geotechnical Engineers, Inc., West Coast Geotechnical, and Mountain Geology from 1991 to the present.

On September 10, 1999, after five years of review of projects proposed on this lot by a former owner, the Grading Division of the City of Los Angeles, Department of Building and Safety (in this report, identified as "City") provided a geologic approval letter indicating that the geotechnical reports and proposed foundations were acceptable, provided that the City's recommendations were complied with during site development.

However, during public hearings for local coastal development permit No. ZA-2001-1780-CDP, the City received information from opponents that raised issues that the reports the City had reviewed did not address. This information included information about the level of the water table, degree of saturation of the soils on the lot and the extent and activity of the slide on the applicant's property.

In the spring of 2001, in response to issues raised by the opponents' consultant, the City rescinded its approval; the previous owner sold the lot to the current owner. The current owner employed a new firm, MEC, to address issues that included the level of the groundwater, the effects of the weight of any groundwater on the engineering of the pilings, and the stability of the slope during construction. When the applicant's current geologists, MEC, reviewed the reports MEC recommended and the City required that the applicant install four vertical dewatering wells.

On April 17, 2002 the City again approved the project. In its April 17, 2002 approval letter, the City required the applicant to install four vertical and four horizontal dewatering wells on the lot. The horizontal de-watering wells (also known as horizontal drains or hydraugers) would be installed at the toe of the slope along Castellammare Drive, beneath the subject property and Posetano Road. The vertical de-watering wells would be installed at the corners of the lot to depths of 10 feet below the bottom of the

ancient slide plane and would be drained by sump pumps. The applicant also proposes the installation of two inclinometers that will monitor the movement of the active landslide across the subject property. They would extend to a minimum depth of 20 feet below the bottom of the ancient slide plane (Exhibit 6). The City required the applicant to install two inclinometers during the geologic review process to provide information about the activity of the slide; but allowed the applicant to defer installation of the second until after a wood retaining wall could be removed during construction. (June 2002 addendum). The applicant has taken a number of measurements of the inclinometer at declining intervals. The applicant seeks an after-the fact permit for installation of the inclinometer. After the City issued its final geologic approval letter (April 17, 2002 (Exhibits 9 and 10), the West Los Angeles Area Planning Commission approved Local Coastal Development Permit No. 2001-1780 (CDP) on May 1, 2002.

The applicant's geotechnical reports indicate that the applicant's lot is located on an active and ancient landslide. The active landslide covers the entire lot and completely surrounds it, extending across Posetano Road (on the upslope side of the property), across Castellammare Drive (on the downslope side of the property), approximately 150 feet from the southeast side of the property, and approximately 30 feet from the northwest side of the property (Exhibit 5). To provide stability in this situation, the City has required and/or the applicant has proposed 4' caissons tied together with grade beams. The caissons would be drilled below and penetrate the potential high water table (between 0 and approximately 23 feet below the surface of the property), the historic slide plane, and the ancient slide plane (as shown on section D-D, Exhibit 6). The City required the applicant to install caissons off the site on the upslope side of the house and beneath Posetano Road to the limits of the upper, active, slide. Moreover, to avoid the destabilizing effects of groundwater, the previous owner's consultants proposed four horizontal dewatering wells across the site.

Dr. Mark Johnsson, the Commission staff geologist, has visited the site and reviewed the reports and has spoken to the City geologists, the applicant's consultants and the geologists hired by the opponents. In a recent letter, Exhibit 11, he stated in part:

"The project site is on the upper corner of a relatively large composite landslide that is well known, having been previously mapped by the U.S. Geological Survey. An ancient landslide, with a slide plane approximately 45 feet below the surface in the area of the parcel, is overlain by an active or recently active landslide with a shallower slide plane, at approximately 15-30 feet depth.

... the City required dewatering, but structural calculations were undertaken under the assumption that dewatering efforts would be ineffective. ... In effect, the foundation system, consisting of five rows of deep caissons and several retaining walls, was required by the City to be designed to resist active landslide pressures above the ancient slide plane, ensuring that if the landslide were to move, the foundation system would resist movement on the subject lot, even as the landslide moves downslope on adjacent parcels." (Mark Johnsson, letter, 3/12/2003, Exhibit 11)

Upon considering the opponents' information, reading the record and visiting the site, Dr. Johnsson requested the following additional information:

- 1) A seismic analysis of slope stability and design adequacy;
- 2) The inclinometer readings collected to date;
- 3) Comments on concerns raised by E.D. Michael, geologist for opponents to the project, concerning the effects of seepage forces on the slope stability calculations.

Dr. Johnsson describes the result of his inquiries in detail. (Exhibit 11). In conclusion Dr. Johnsson states:

"With these three concerns adequately addressed, I concur with the City's assessment that the proposed project can be undertaken so as to assure stability of the site and of the surrounding area. In order to assure that this is the case, I recommend that a special condition be imposed requiring adherence to all recommendations put forth in the geologic report dated 8 November 2001, and in the City review letter dated 17 April 2002, as modified by the City review letter dated 11 June 2002." (Mark Johnsson, letter, 3/12/2003, Exhibit 11)

After reviewing the comments of Dr. Eugene Michael, who was hired by the opponents, Dr. Johnsson requested that a pseudo-static slope stability analysis be performed for the parcel and requested the applicant to present the results of the inclinometer readings that were recently performed. According to the staff geologist, the calculations that were performed conclude that as designed, the stability of the development on the site will be within the factor of safety of 1.5. In addition, it is the opinion of Commission staff geologist that the values used in calculations of the analysis are conservative. For instance, the analysis did not take into account lowering of the water table through the dewatering wells. Therefore, the existence of the four dewatering wells and for hydraugers only adds to the stability of the site. The staff geologist concurred that the seismic analysis that was performed for the project also is adequate.

As mentioned previously, the applicant already has installed an inclinometer on the site. The results of the readings indicate that no significant movement has occurred since May 2002, when the device was installed. Nonetheless, staff recommends that the permit not issue until the City geologist and the staff geologist have been able to review an entire winter's worth of measurements. If on review of the record of the inclinometers, the City requires the applicant to redesign the foundation system to address earth movement, the Commission would consider the redesign as an amendment to this permit.

The full text of the staff geologist's review is attached in Exhibit 11. At the request of the staff geologist, the staff engineer, Lesley Ewing, also reviewed the materials submitted by the applicant. The engineer's letter is attached as Exhibit 12. The engineer concludes that the site is difficult; the design is adequate, but that the safety of the site as a whole depends on the adequacy of the maintenance of the drains and pumps and continued maintenance by future owners.



"This is a difficult site to develop safely. The engineering plans will provide gross stability for the conditions and against the slide problems identified at this time. The retaining walls will reduce surgical soil movement. The dewatering wells will reduce the possibility of unexpected problems with soil saturation and seepage. All these actions will provide a site that can be developed with an acceptable level of safety. The engineering for this site will assure site stability for the identified conditions. Even with these engineering efforts, this site poses may possible risks. The engineering efforts will not eliminate these risks, but will reduce them. "

The engineering has not been designed to mitigate for massive changes to the surrounding area as a result of the identified slides. In addition, some of the engineering measures will require on-going maintenance and repair for as long as the site is developed. ...

The current or future property owners will have to undertake maintenance of the dewatering system and may have to take additional remedial measures if other parts of the landslide continue to move. ."(Letter, Lesley Ewing, March 12, 2003, Exhibit 12)

As described above, the parcel lies within this historic landslide. As previously mentioned, the ancient landslide deposits range in thickness to approximately 42 feet. West Coast Geotechnical considers the upper 16 feet of the debris "active landslide material." The geotechnical reports indicate that the older landslide is "grossly stable" with a 1.5 factor of safety. However, to ensure a conservative analysis, the 1.5 factor of safety plane was assumed to occur at the contact between the slide debris and the underlying bedrock, approximately 40 to 45 feet below the existing grade. The proposed piles will be placed, at a minimum, 40 feet into the underlying bedrock, below the contact between the slide debris and bedrock. The pilings will extend beyond the lot line under Posetano Road, where it crosses the active slide, and will stabilize a portion of the road. The geotechnical consultant indicates that by placing the piles at a minimum of 40 feet into the bedrock material and designing the piles to withstand the active fluid pressure as indicated in the geotechnical reports, the proposed project will have a factor of safety in excess of 1.5. A factor of safety of 1.5 is the generally accepted minimum value required to ensure slope stability.

The geotechnical reports state that the proposed development is considered feasible from a geotechnical engineering standpoint provided their recommendations are incorporated into the development plans. Therefore, the foundation system should assure stability of the site consistent with Section 30253 of the Coastal Act if the project is carried out in accordance with the recommendations set forth in the geotechnical reports. The City concurs, provided that there is no recent movement on the slide as indicated by the inclinometers.

1. Long Term Observation of the Inclinometers.



City of Los Angeles Department of Building and Safety, (City) Geologic/Soils Review Letter 35867-01, dated April 17, 2002,<sup>1</sup> as slightly modified on June 11, 2002, requires the applicant to install two inclinometers and monitor them before beginning construction. One of the two required inclinometers has already been installed. Since the inclinometer was installed in 2002, the site has moved one tenth of an inch. In special condition one, based on the analysis of the staff geologist, the Commission requires the applicant to monitor the site for at least one rainy season prior to the construction of the proposed single-family house. If, as a result of the information from the inclinometers, the City requires a change in the foundations, the applicant shall submit an application to amend the permit. No changes in the foundation design shall be carried out until approved by the Commission.

2. Conformance with Geotechnical Recommendations

Recommendations regarding the design and installation of the structures, foundation system, retaining walls, staging of construction, height of unsupported cuts during construction and grading have been provided in several reports and letters submitted by the applicant, as referenced in the above noted final reports. Adherence to the recommendations contained in these reports is necessary to ensure that the proposed single family home and soldier pile and tie beam system assures stability and structural integrity, and neither creates nor contributes significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way requires the construction of protective devices that would substantially alter natural landforms.

Therefore, Special Condition 2 requires the applicant to conform with the consultants' February 2001 report, which proposes dewatering wells, and with City requirements, as set forth in the City approvals of April 17, 2002 and June 11, 2002 which cite numerous previous reports addressing the slide, its extent, the water level, the number and thickness of pilings and their depth and construction methods. These special conditions require an amendment if (1) the design of the foundation, the construction methods or dewatering system were to change or (2) if various assumptions concerning the soils, extent of the ancient or modern slide or the level of the water table on the property were determined to be wrong.

3. Conformance to Covenants: Maintenance of Drains and of any Debris Caused by Larger Slide

In addition the Commission requires that the applicant carry out the requirements of the two covenants required by the City. Special Conditions 8, 9 and 10 require the applicant to submit and agree that he or his successors will assume the responsibility of repairing any damage caused by reactivation of the larger, ancient slide, and also maintain the sump pumps and drains. First, the applicant is responsible for addressing

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<sup>1</sup> City of Los Angeles, Department of Building and Safety, 2002, "Tract Castellammare (MP 113-3/8), Block 10, Lot 6, 17633 Castellammare Drive; Log # 35867-01", 5 p. Review letter dated 17 April 2002 and signed by D. Hsu, D. Prevost and P. Challita.

any problems cause by continued movement of the larger slide. Second the applicant and his successors are responsible for continued maintenance of the sump pumps and hydraugers meant to reduce the ground water on the property. These requirements will be recorded along with other special conditions so that future owners are informed of the need to maintain the drains of the property and to do reconstructive grading if the slide debris under the house moves. Any change in the covenant with the City will need to be reported to the Commission before execution and may require an amendment to this coastal development permit.

#### 4. Assumption of Risk Deed Restriction

Under Section 30253 of the Coastal Act new development in areas of high geologic, flood, and fire hazard may occur so long as risks to life and property are minimized and the other policies of Chapter 3 are met. The Coastal Act recognizes that new development may 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 his/her property.

The proposed single family home and 900 cubic yards of grading lie on a steep coastal bluff lot (Exhibits 3-8). The Geotechnical analysis reports by MEC, West Coast Geotechnical and Mountain Geology have stated that with modern engineering it is possible to develop the lot safely. However, the applicant commissioned these reports, and ultimately the conclusion of the report and the decision to construct the project relying on the reports is the responsibility of the applicant. The proposed project may still be subject to natural hazards such as slope failure. As noted elsewhere, the ancient slide extends well off the property (Exhibit 4). This slide may unexpectedly move and cause damage to the property, leaving the house above the level of the slope, with pilings exposed. The geotechnical evaluations do not guarantee that future erosion, landslide activity, or land movement will not affect the stability of the proposed project or that movement of offsite slides might not affect this property or adjacent roads. . Because of the inherent risks to development situated on a steeply sloping bluff lot, the Commission cannot absolutely acknowledge that the design of the single family home will protect the subject property during future storms, erosion, and/or landslides. Therefore, the Commission finds that the proposed project is subject to risk from landslides and that the applicant should assume the liability of such risk.

The applicant may decide that the economic benefits of development outweigh the risk of harm, which may occur from the identified hazards. However, neither the Commission nor any other public agency that permits development should be held liable for the applicant's decision to develop. Therefore, the applicant is required to expressly waive any potential claim of liability against the Commission for any damage or economic harm suffered as a result of the decision to develop. The assumption of risk, when recorded against the property as a deed restriction, will show that the applicant is aware of and appreciates the nature of the hazards which may exist on the site and which may adversely affect the stability or safety of the proposed development.

In case an unexpected event occurs on the subject property, the Commission imposes Special Condition 5, which requires the landowner to assume the risk of extraordinary erosion and/or geologic hazards of the property. The deed restriction will provide notice of potential hazards of the property and help eliminate false expectations on the part of potential buyers of the property, lending institutions, and insurance agencies that the property is safe for an indefinite period of time and for further development indefinitely in the future.

Therefore, prior to issuance of the Coastal Development Permit, the applicant shall execute and record a deed restriction in a form and content acceptable to the Executive Director, which reflects the above restriction on development. The deed restriction shall include a legal description of the applicant's entire parcel. The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Commission amendment to this coastal development permit.

#### 5. Erosion Control Measures

Storage or placement of construction materials, debris, or waste in a location subject to erosion and dispersion via rain or wind could result in possible acceleration of slope erosion and landslide activity. Special Condition 10 requires the applicant to dispose of all demolition and construction debris at an appropriate location outside of the coastal zone, or to a Commission-approved site inside the coastal zone, and informs the applicant that any change in this plan, including use of a disposal site within the coastal zone that has not been approved by the Commission will require an amendment or new coastal development permit. The applicant shall follow both temporary and permanent erosion control measures to ensure that the project area is not susceptible to excessive erosion.

Currently, runoff flows uncontrolled over and across the subject property to Castellammare Drive. This has created cuts in the existing slope and has contributed to an increase in erosion across the subject site. The applicant has submitted a drainage plan that will, if carried out, collect runoff water and direct it to the street and not across the subject property. The drainage plan includes the installation of 12-inch by 12-inch area drains connected by three-inch and six-inch P.V.C. storm drainpipe. This system is distributed throughout the lot.

Although the applicant has submitted a drainage plan demonstrating the permanent erosion control measures, the Commission requires a complete erosion control plan for both permanent and temporary measures. Therefore, prior to issuance of the Coastal Development Permit, the applicant shall submit, for the review and approval of the Executive Director, a temporary and permanent erosion control plan that includes a written report describing all temporary and permanent erosion control and run-off measures to be installed and a site plan and schedule showing the location and time of all temporary and permanent erosion control measures (more specifically defined in Special Condition 4). In addition the applicant shall address the disposal of water from the sump pumps, the fountain and from the spa so that the project does not add polluted water to the storm drain system. This issue is more thoroughly addressed in the section on marine resources, below.

#### 6. Ground Water

The geotechnical reports indicate that ground water levels are approximately 60 feet below the surface, within the bedrock material. The reports state that a layer of

impermeable clay (which constitutes the slide plane) lies above the ground water level, at a depth of approximately 40 feet. The applicant's geotechnical consultant has stated that groundwater is not expected to rise past this layer. Opponents have identified occasional seeps near the surface. In response to this evidence, the City imposed additional conditions. Although the pilings are designed to function as if the groundwater were higher, the applicant has proposed to place four horizontal dewatering wells to drain any possible ground water that may rise above the clay layer from the property (Exhibit 9). In addition, in response to these comments, the applicant proposed to install four dewatering wells. The dewatering wells are proposed as an additional assurance to intercept any subsurface flow that may occur. The applicant proposes to drill these wells so that they penetrate the bedrock. The dewatering wells were not accounted for or relied upon during the slope stability analysis conducted by the geotechnical consultant. The wells will be placed 48 feet below the existing grade at its deepest point (below Posetano Road) and exit to Castellammare Drive.

#### 7. Spa/Fountain Monitoring

The applicant has proposed to construct fountain on a terrace supported by the project caissons that is accessed via a roof access structure from the main house. The terrace is at roof level, and supported by caissons, but is not located above any of the rooms of the single-family house. The terrace functions as the rear yard between the proposed home and a proposed recreation room. The applicant also proposes a spa in a side yard on the same level as the terrace (Exhibit 7). Natural soils are found below this terrace area and spa. Water from leakage of the proposed spa and fountain can add to the amount of ground water, potentially contributing to slope instability. Possible events involving the spa and fountain that could create instability within the bluff are leakage, spillage, and discharge of water during maintenance.

For this reason that the Commission imposes Special Condition 7 that requires the applicant, prior to issuance of the coastal development permit, to submit a written plan to mitigate for the potential of leakage from the proposed spa and fountain and control any water discharged when the spa or fountain is drained. The plan shall include separate water meters for the spa/fountain and the proposed home. Separate water meters will help in determining whether there is a leak in either the spa or fountain structures. An automatic cut-off, similar to that of irrigating landscaping on bluffs, shall be incorporated in the spa/fountain system if water uses exceed that of normal and expected uses in a three-hour period. This shall ensure that if a break were to occur beneath the surface, without the knowledge of the property owner/resident, the water flow will be terminated. An override period of no more than two hours is allowed for routine maintenance and cleaning. The applicant shall provide the materials that will be used to waterproof the underside of the spa and fountain and past success rates of such materials. After further discussion, Dr. Johnsson advises that the spa, which is located in a side yard, should be constructed with a double layer of impervious membrane below it, with a pump or drain between the layers. The applicant's engineer should inspect the connections before the installation of any decks or coverings. Also, the applicant shall submit final drainage plans that demonstrate where spill water and water from maintenance activities will be contained and diverted. The applicant shall

include such a drainage plan in the overall drainage plan of the property. The applicant objects to this condition, stating that the fountain is on the roof of his house and that any leakage from either installation would be immediately detected because it would leak into a ceiling. On consideration of this objection, the Commission finds that the potential damage caused by uncontrolled leakage or by uncontrolled discharge of cleaning water exceed the inconvenience of installation of a meter, a cut off, second alarm, or double bottoms. .

#### 8. Landscaping

The installation of in-ground irrigation systems, inadequate drainage, and landscaping that requires intensive watering are potential contributors to accelerated bluff erosion, landslides, and sloughing, which could necessitate protective devices. Due to the geologic sensitivity of the site, the Commission requires that all plants be low water use, as defined by the University of California Cooperative Extension and the California Department of Water Resources in their joint publication: "*Guide to Estimating Irrigation Water Needs of Landscape Plantings in California*". .

The applicant has proposed to landscape 2,000 square feet of his property. The applicant has not, however, stated what plant species he intends to use in the landscaping plan. Much of this area is located in side and yard setbacks, and in an area between the building and the recreation room. Installation of plants that require regular and deep watering could result in increased ground water, potentially leading to slope instability. For this reason the applicant is required to use plants that do not require irrigation in this climate, primarily native plants of the coastal bluff scrub community, and to refrain from installing permanent irrigating systems. There are other reasons to use native plants. The reasons the low water use plants should be primarily native are given in the habitat section below. As conditioned, to minimize infiltration of water, the development will be consistent with section 30253 of the Coastal Act.

As conditioned, the Commission finds that the development is consistent with Section 30253 of the Coastal Act.

### C. **VISUAL IMPACTS/LANDFORM ALTERATION**

Section 30251 of the Coastal Act states:

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

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

The Coastal Act protects public views. In this case the public views are the views from the public streets to the Pacific Ocean and from Pacific Coast Highway and Will Rogers State Beach to the Santa Monica Mountains. The project will be above Pacific Coast Highway, separated from Pacific Coast Highway by a road and a local street and a narrow lot. The project, as modified by the City has been reduce in height to avoid impacts on views from Posetano Road the frontage road that is upslope of the lot, and adjacent to it. The modified project includes a rear yard retaining wall that seems to extend five feet above Posetano Road. This will eliminate public views from Posetano road across the lot.

The project is located approximately 240 feet inland of Will Rogers State Beach and will visible from the highway and the beach. The lot is at least a 2:1 slope. The peak of the roof of the main house is 36 feet above Castellammare Drive, and the peak of the roof of a roof (and rear yard) access structure above the main house is 41 feet above Castellammare Drive. The roof of the accessory structure accessed off Posetano Road (the street at the rear of the lot) will be 46 feet above Castellammare, the frontage road. A second level originally proposed for the rear yard structure was eliminated at the City. A retaining wall will extend about five feet above Posetano Road, 46 feet above Castellammare Road. (Exhibit 8).

The project site is located in an established residential community. The other houses along Castellammare are also visible from the State Beach and Pacific Coast Highway. The subject property is one of a few vacant lots in this area along proposed residence. The applicant has removed a second level room over the accessory structure that would have blocked views from residences on the inland side of from Posetano Road. The height of the now-proposed structure is consistent with the Hillside Ordinance that was established by the City of Los Angeles Planning Department. The proposed single family home is consistent with the existing homes in this area. The neighboring homes in the Castellammare area consist of one to four level single-family homes. As now proposed by the applicant, only one aspect of the project, the five-foot height wall at the rear yard property line has the possibility of impacting public views. As conditioned in Special Condition 3 to carry out the City's order to remove the second level "gazebo" from the rear yard recreation room and to reduce the height of the rear yard wall to 42 inches in height above Posetano Road, the project will not impact any public views to or from the Pacific Ocean, Will Rogers State Beach, Pacific Coast Highway or Posetano Road and is consistent with the character and scale of the structures in the surrounding community.

One visual impact that could occur is that if the slide under the house moves, leaving the house in place with the pilings exposed. The house is designed to remain stable even if the underlying slide continues to move. If the slide moves, it will move through the pilings to the streets below Castellammare and PCH, leaving the supporting pilings visible, and a pile of earth obstructing the street. To address this problem, the City has required that the applicant record a covenant assuming responsibility to undertake



reconstructive grading if that occurs. Special Condition 8 requires that the applicant execute this agreement and requires an amendment if there are any changes in the agreement. It also requires that any changes to the City covenant would need to be reviewed and would require an amendment to this permit from the Commission.

In addition to requiring that any change in this covenant will require an amendment to the permit, the Commission also requires that applicant take measure to reduce the visual impacts of such an event. In Special Condition 9 the Commission requires that the concrete in the seawardmost pilings be colored to have a mottled appearance consistent with the underlying soils and make an advance plan to mitigate the visual impacts of land movement that would expose the pilings. Similarly the applicant is required, in the event earth movement exposes the pilings to construct a "break-away wall" close to the Castellammare property line to reduce the visibility of the pilings. In order to comply with City's requirements, this wall would have to be designed so that it did not retain the earth or water behind it, but would break under the pressure of earth.

Section 30251 also requires all permitted development to minimize alteration of natural landforms. The project site is a steeply sloping bluff lot in a developed neighborhood of the Pacific Palisades. The applicant has proposed 850 cubic yards of cut and 50 cubic yards of fill to set the residence back into the bluff and to conform with the recommendations of his geotechnical consultant. The 900 cubic yards of grading is the minimum possible to lessen the risk of earth movement caused by the construction and to create a building pad for the single-family home.

The Commission finds that the applicant has minimized landform alteration in his effort to safely construct a single-family home on his property. The 850 cubic yards of cut, 50 cubic yards of fill is the least amount of landform alteration necessary to provide adequate support for the proposed project. Therefore, as conditioned, the Commission finds that the proposed project is consistent with Section 30251 of the Coastal Act.

#### **D. WATER QUALITY**

##### **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. Section 30231 of the Coastal Act states that:

*The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion*

*of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, minimizing alteration of natural streams.*

As described above, the proposed project is located on a 4,289 sq. ft. steeply sloping lot that is thickly vegetated with a mixture of native and introduced vegetation. As a result of the development, only 2,000 square feet will remain uncovered by structures, much of that in paved decks, spa and other impermeable surfaces. The two structures and the impervious area will increase runoff from the site. The applicant proposes in-ground drains on both side yards to direct drainage off the property. Due to the geologic conditions at the site, the consultants and the City have recommended that no water be allowed to percolate into the soils. The neighbors have pointed out and the consultants confirmed that the ground water is not far below the surface of the lot, most of it replenished from off-site. (The opponents term for this an "underground stream".) This groundwater will be pumped out of the site with hydraugers and vertical dewatering wells (sump pumps) over the life of the structure. The applicant has not indicated where the discharge from these sump pumps will be directed. The site is considered a "hillside" development, as it involves terrain with 2:1 to almost vertical slopes consisting of marine terrace soils (sandstones and siltstones that if disturbed or saturated are susceptible to erosion). Due to the high groundwater, it will be necessary to pump water out of the excavations during construction. The Regional Water Quality Board (RWQB) usually establishes requirements on such pumping. It is expected that the City, enforcing Board policy, will require the water to be pumped to a storm drain, and that sandbags or other devices be placed to prevent sheet flow over the erosive, unstable lots downslope of the site, between Castellammare and Pacific Coast Highway. According to the applicant, the water will be pumped into the street gutter and flow down the street into the storm drain opening. The applicant contends that (1) there will be a very small quantity of water and (2) that dewatering wells in the neighborhood are all designed this way.

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

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

Therefore, in order to find the proposed development consistent with the water and marine resource policies of the Coastal Act, the Commission finds it necessary to require the incorporation of Best Management Practices (BMPs) designed to control the volume, velocity and pollutant load of stormwater leaving the developed site.

In this case, because BMPs that involve infiltration of water into the soil are impractical and unsafe, it is important to take extraordinary measures to reduce runoff from the site. Therefore the Commission is requiring use of low water use plants over the entire lot that can survive without irrigation, no in-ground irrigation system, interim stabilization of the site with jute matting or covering rather than annual grasses. Again because all the water will come off the site and into the bay, pesticide and herbicides are limited.

Furthermore, interim erosion control measures implemented during construction and post construction landscaping will serve to minimize the potential for adverse impacts to water quality resulting from drainage runoff during construction and in the post-development stage. Therefore, the Commission finds that Special Condition 4 is necessary to ensure the proposed developer will not adversely impact water quality or coastal resources.

Therefore, the Commission finds that the proposed project, as conditioned to incorporate and maintain an erosion, drainage and polluted runoff control plan, is consistent with Section 30231 of the Coastal Act.

#### **E. NATIVE VEGETATION/LANDSCAPING**

The project site is currently vacant. According to the City staff report on the City coastal development permit and related environmental evaluation, this and adjacent sites have never been developed. The applicant has not provided an evaluation of the vegetation, but a significant portion of the site supports coastal bluff scrub plants, of the Encelia Scrub sub community, of the coastal sage scrub community, including yucca, Encelia californica, laurel sumac, poison oak, black sage, coast goldenbush and lemonade berry. The site also supports a significant number of introduced shrubs and grasses, including oats, foxtails, pampas grass, and iceplant, some of which are invasive species. The site is located within half a mile of Santa Ynez Canyon, a newly acquired part of Topanga State Park, which is located north of this subdivided ridge, and accessed off Sunset Boulevard. Topanga State Park is part of the Santa Monica Mountains State Recreation area, which includes a many acres of undeveloped canyon and ridge tops in the part of the Santa Monica Mountains. All vegetation on the 4,289 square foot site will be removed during construction of the pilings and soldier beams, which are necessary to support the house and the adjacent Posetano Road.

Section 30240 of the Coastal Act states:

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

The lot is located in a developed neighborhood on the southwestern edge of the Santa Monica Mountains (Exhibit 1). The neighborhood has been subdivided into 4,000-6,000 square foot lots since the 1920's and a significant number of these lots are developed. Those that are developed are landscaped with exotics. Some coastal bluffs and canyons in the Pacific Palisades area and Santa Monica Mountains were identified as significant ecological areas in the 1972 -76 Los Angeles County survey of remaining habitat. Those relatively intact canyons support high value habitat and are considered Environmentally Sensitive Habitat Areas. Typically these areas are undeveloped and include extensive, connected habitat areas that are relatively undisturbed. The Commission, the Santa Monica Mountains Conservancy and the Department of Parks and Recreation have cooperated to reserve canyons and ridge tops in this part of the nearby mountains, including areas to the north and east of this neighborhood. However, this property does not connect to those preserved areas. Instead the lot is one of six lots that are mowed in fire season and that are isolated from other habitat areas by other houses and domestic landscaping.

The lot and the adjacent lots cannot be considered environmentally sensitive habitat because of the level of disturbance, their small size, and because they are not physically connected to larger, undisturbed areas. The lot is also not immediately adjacent to a park or an environmentally sensitive habitat area. Nevertheless, the lots in this neighborhood have some interaction with the habitat in the nearby parks. Because the area is less than a mile from extensive habitat, small patches of native plants can support the native insects and birds that live in the mountains, and invasive domestic plants can invade park areas. .

While the lot does not support environmentally sensitive habitat, domestic landscaping planting on the lot can affect nearby habitat. Nearby habitat areas, such as Los Liones Canyon, have suffered from the invasion of introduced plants, particularly those that escape from wind or bird-borne seeds or from vegetative spreading, such as ice plant and German ivy. Introduced plants that have escaped from developed lots in the Pacific Palisades have created expensive maintenance problems for managers of the parks and reserves that lie in the canyons and farther up in the mountains in the Pacific Palisades. For this reason, the applicant is required to avoid invasive plants such as those identified by the California Native Plant Society (CNPS) or the Los Angeles County Department of Food and Agriculture Weed Management Agency. The CNPS list is attached to the report as Exhibit 18.

While the lot is not an environmentally sensitive habitat, recovering seeds and cuttings from the plants on the lot could preserve the genetic heritage of the plants in the coastal sage scrub community, which is in danger of disappearance. For this reason, the applicant is required to salvage seeds and cuttings from the lot, and to use locally native plants in the small areas identified for landscaping on the lot, about 2000 square feet in the front and side yards.

As noted above, in order to protect the stability of the applicant's lot, the Commission has required that all plants on the lot be "low water use". Low water use plants are required because they require little or no watering. Once they are established (1-3 years), they have deep root systems that tend to stabilize the soil, and are spreading plants that tend to minimize erosion impacts of rain and water run-off. In this special condition, "low water use" means a low water use plant found in the University of California Cooperative Extension and California Department of Water Resources, "A Guide to Estimating Irrigation Water Needs of Landscape Planting in California," as appropriate to Region 3, or a coastal sage scrub plant native of the Santa Monica Mountains.<sup>2</sup> Staff has noted that the identification of low water use or "drought tolerant" plants is an ambiguous term which can be interpreted to apply to a broad range of plants, making it hard for applicants to know which plants are approved. Special Condition 6 defines "low water use" by reference to the Guide noted above. This manual establishes expected levels of water use of a long list of plants in several of California's climates. The southern California coastal region is identified as Region 3. The same Guide indicates that if there are plants in a garden that are not low water use, the water use of the entire garden will increase, undermining the intent of the condition.

Using native plants of the Santa Monica Mountains on about 80% of the 2,000 sq feet the applicant intends to plant can enhance its utility as habitat for mobile animals such as insects and birds. In order to preserve the genetic diversity represented by the CSS plants that now exist on the lot, the applicant is required to salvage seeds upon approval of this permit. To ensure that the project maintains low water use vegetation, adequate drainage, and no in-ground irrigation systems, the Commission imposes Special Condition 6 requiring the applicant to incorporate low water use vegetation that is native the Santa Monica Mountains and of the same plant community that is now found on the lot. Because the City has required the landscape plan to be reviewed by the Fire Department, Condition 6 includes that provision, and allows the use of non-natives over a portion of the lot. For the reasons listed above, the plan shall include no invasive plant species, and no permanent irrigation systems. The plan shall allow for the temporary use of above ground irrigation to allow time to establish the plantings. The plantings shall provide 80% coverage within three years of occupancy. In the interim, the applicant shall employ jute matting and other measures to reduce surface sloughing. The plantings shall be maintained in a good growing condition for the prevention of exposed soil, which could lead to erosion and possible landslides. Special Condition 6 also requires a five-year monitoring program to ensure the proper

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<sup>2</sup> University of California Cooperative Extension and California Department of Water Resources, "A Guide to Estimating Irrigation Water Needs of Landscape Planting in California," August 2000.

growth and coverage of the landscaping. Five years from the implementation of the landscaping plan, the applicant shall submit a monitoring report that certifies the on-site landscaping is in conformance with the landscaping plan approved pursuant to this special condition. As conditioned, the project will be consistent with efforts to protect environmentally sensitive habitat in the nearby parks and reserves (Topanga State Park, Santa Ynez Canyon Park, the City's park in Potrero Canyon) and is consistent with Section 30240 of the Coastal Act.

#### **F. UNPERMITTED DEVELOPMENT**

The applicant has installed an inclinometer on this site without first receiving the required coastal development permit. The applicant is proposing to retain the inclinometer for a period of up to two years after its initial installation. The City of Los Angeles Department of Building and Safety -Grading Division required the applicant to install the inclinometer as a precondition of issuance of grading permit. While test pits and borings are treated as exempt, more elaborate work done in the course of geologic exploration, including access roads, normally require a separate coastal development permit. Installation of the inclinometer is development because the installation requires excavation and because the instrument is left on the site. However in this case, the grading required to install the instrument is minimal.

Although construction has taken place prior to submission of this permit application, consideration of the application by the Commission has been based solely upon the Chapter 3 policies of the Coastal Act. Approval of this permit does not constitute a waiver of any legal action with regard to any alleged violations nor does it constitute an admission as to the legality of any development undertaken on the subject site without a coastal permit.

#### **G. LOCAL COASTAL PROGRAM**

The Coastal Act required that the Commission consider the effect on a local coastal program when it approves a project. The Commission is prevented from approving projects that might prejudice the completion of local coastal program.

Section 30604 (a) of the Coastal Act states:

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

In 1978, the Commission approved a work program for the preparation of Local Coastal Programs in a number of distinct neighborhoods (segments) in the City of Los Angeles.



In the Pacific Palisades, issues identified included public recreation, preservation of mountain and hillside lands, and grading and geologic stability. Geologic stability was one of the primary issues because of the number of landslides that had occurred in the sixties and early seventies.

The City has submitted five Land Use Plans for Commission review and the Commission has certified three (Playa Vista, San Pedro, and Venice). However, the City has not prepared a Land Use Plan for Pacific Palisades. In the early nineteen seventies, a general plan update for the Pacific Palisades had just been completed. When the City began the LUP process in 1978, with the exception of two tracts (a 1200-acre and 300-acre tract of land) that were then undergoing subdivision approval, all private lands in the community were subdivided and built out. The Commission's approval of those tracts in 1980 meant that no major planning decision remained in the Pacific Palisades. The tracts were approved on appeal by the Commission: A-381-78 (Headlands) and A-390-78 (AMH). Consequently, the City concentrated its efforts on communities that were rapidly changing and subject to development pressure and controversy, such as Venice, Airport Dunes, Playa Vista, San Pedro, and Playa del Rey.

Because the Castellammare neighborhood is developed and subdivided, it is unlikely that any different land uses would be approved for the area. In the intervening years, the City has upgraded its standards for geologic review of parcels before approval, and has tightened restrictions on the construction on uncertified fill.

Although there have been landslides on properties since the late seventies, most of the recently approved structures have remained stable through the use of foundation systems that were not considered when the original subdivision built out. It is likely that the Local Coastal Program for the area will not seek to deny development on unstable lots outright, but will instead require that the owners achieve a factor of safety of at least 1.5. The proposed development, after construction, will have a factor of safety of at least 1.5 if the applicant complies with the conditions imposed by the City and by the Commission. Such measures are, according to City of Los Angeles officials, are likely to be adopted as the policies of the Pacific Palisades Local Coastal Program (LCP).

With the proposed conditions that address the geologic stability, landscaping, community character, sensitive habitat issues related to the project and the general area, approval of the proposed development will not prejudice the City's ability to prepare a local coastal program in conformity with Chapter 3 of the Coastal Act. The Commission, therefore, finds that the proposed project is consistent with the provisions of Section 30604(a) of the Coastal Act.

#### **H. CALIFORNIA ENVIRONMENTAL QUALITY ACT**

Section 13096 of the Commission's regulations requires Commission approval of Coastal Development Permit applications to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any



applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d) (2) (A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available, which would substantially lessen any significant adverse effect which the activity may have on the environment.

The Commission and the City considered denial of the project. Denial of the project would have not allowed stabilization of the landslide on the site, which is threatening Posetano Road. The Commission has imposed special conditions to protect the area from siltation and collapsed during and after construction and to enhance the bluff face over Pacific Coast Highway.

The Commission staff has investigated the neighbors' concern that a high ground water table under the lot could increase the likelihood of failure of the house after construction, or that the house could fail in a seismic event. In response to this high water table, the City and the Commission have required the applicant operate a dewatering system to lower the water table. The Commission has considered the possibility that the operation of the dewatering system could cause erosion down slope property and has required that the applicant take measures to control and channel runoff of storm drains. In response to the landslides on the site, construction is to be completed in stages, with slopes stabilized with temporary retaining walls after each five feet of excavation, lowering the likelihood of slope failure triggered by the excavation for the foundation. However, the applicant has provided credible evidence that with the foundation and drainage system proposed that all adverse impacts of the project, including slope failure have been minimized. The City Department of Building and Safety's conditions of approval reduce the possibility of slope failure on this lot. The Commission has addressed the possibility that increased runoff from this lot due to the discharge of sump pumps and surface drainage would increase polluted runoff by requiring that the applicant filter runoff before it enters City streets. The sump pumps are required to drain to the sanitary sewers. To minimize runoff and increased infiltration into the lot the Commission requires that the spa if drained for maintenance drain into the sewer and that the applicant plant low water use plants. As explained above and incorporated herein, all adverse impacts have been minimized and the project, as proposed, and conditioned will avoid potentially significant adverse impacts on the environment. The Commission finds that the proposed project, as conditioned to assume the risk of the development, to supply and implement an erosion control plan, and to provide a landscaping plan with low water use plant species, to salvage seeds and cuttings from the site and to minimize infiltration of water onto the is consistent with the requirements of the Coastal Act and CEQA.

**APPENDIX A**  
**SUBSTANTIVE FILE DOCUMENTS, CONTINUED FROM PAGE 2**

- 9) Michael, E.D., 2003, "Review of recently provided document re proposed development in 16633 Castellammare Drive, Pacific Palisades Area, City of Los Angeles, California, Lot 6, Block 10 Castellammare Tract, MB 113-3/8; APN 4416-012-0160, to wit, Salehipour, Sassan A and Ray Eastman.2002 'Response to State Geologist Questions and EDM Question for 17633 Castellammare Drive Pacific Palisades, MEC Geotechnical Engineers, December 4, 2002,' " May 6, 2003.
- 10) MEC/Geotechnical Engineers Inc. 2002, "Response to State Geologist Questions and EDM Questions for 17633 Castellammare Drive, Pacific Palisades", 6 p. geotechnical report dated 4 December 2002 and signed by S. A. Salehipour (G.E. 2579) and R. Eastman (CEG 423).
- 11) Michael, E.D. 2002, "Response to questions by Jack Allen re: Coastal Commission No. 5-00-407, 17633 Castellammare Drive, Pacific Palisades", 4 p. Geotechnical review letter dated 8 August 2002 and signed by E. D. Michael (CEG 157 CHG 574).
- 12) Michael, E.D. 2002; "Review of documents provided March 17, 2002 re proposed development of 17633 Castellammare Drive, Pacific Palisades Area, City of Los Angeles, California," March 30, 2002
- 13) Michael, E.D. 2001, "MEC Geotechnical engineers, inc. Responses to Mr. Ben Leeds re 17633 Castellammare Drive, Pacific Palisades," December 27, 2001.
- 14) MEC/Geotechnical Engineers Inc. 2002, "Inclinometer installation for 17633 Castellammare Drive, Pacific Palisades", 2 p. geotechnical report dated 17 May 2002 and signed by S. A. Salehipour (G.E. 2579).
- 15) City of Los Angeles, Department of Building and Safety, 2002, "Tract Castellammare (MP 113-3/8), Block 10, Lot 6, 17633 Castellammare Drive; Log # 35867-01", 5 p. Review letter dated 17 April 2002 and signed by D. Hsu, D. Prevost and P. Challita.
- 16) MEC/Geotechnical Engineers Inc. 2002, "Response to City Questions for 17633 Castellammare Drive, Pacific Palisades", 5 p. geotechnical report dated 15 April 2002 and signed by S. A. Salehipour (G.E. 2579) and R. Eastman (CEG 423).
- 17) MEC/Geotechnical Engineers Inc. 2002, "Response to City Questions for 17633 Castellammare Drive, Pacific Palisades", 5 p. geotechnical report

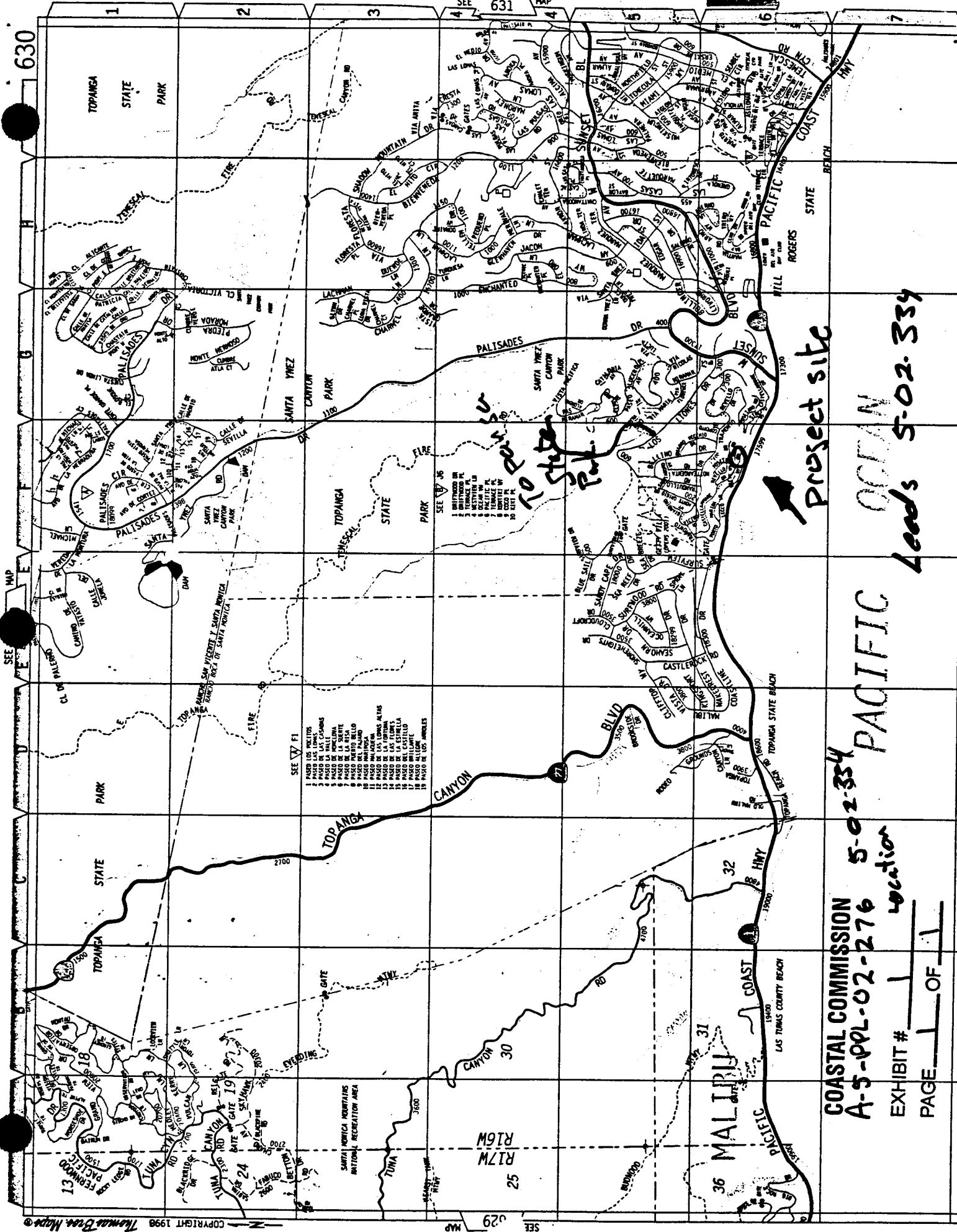
dated 14 April 2002 and signed by S. A. Salehipour (G.E. 2579) and R. Eastman (CEG 423).

- 18) MEC/Geotechnical Engineers Inc. 2002, "Response to City Questions for 17633 Castellammare Drive, Pacific Palisades", 5 p. geotechnical report dated 19 March 2002 and signed by S. A. Salehipour (G.E. 2579) and R. Eastman (CEG 423).
- 19) MEC/Geotechnical Engineers Inc. 2002, "Response to City Review Letter Dated 2/14/02 for 17633 Castellammare Drive, Pacific Palisades", 5 p. geotechnical report dated 18 March 2002 and signed by S. A. Salehipour (G.E. 2579) and R. Eastman (CEG 423).
- 20) MEC/Geotechnical Engineers Inc. 2002, "Response to City Review Letter Dated 2/14/02 for 17633 Castellammare Drive, Pacific Palisades", 6 p. geotechnical report dated 28 February 2002 and signed by S. A. Salehipour (G.E. 2579) and R. Eastman (CEG 423).
- 21) City of Los Angeles, Department of Building and Safety, 2002, "Tract Castellammare (MP 113-3/8), Block 10, Lot 6, 17633 Castellammare Drive; Log # 35867", 2 p. Review letter dated 14 February 2002 and signed by D. Hsu, D. Prevost and P. Challita.
- 22) MEC/Geotechnical Engineers Inc. 2002, "Response to critique dated 12/27/01 by others for 17633 Castellammare Drive, Pacific Palisades", 8 p. geotechnical report dated 1 February 2002 and signed by S. A. Salehipour (G.E. 2579) and R. Eastman (CEG 423).
- 23) City of Los Angeles, Department of Building and Safety, 2002, "Tract Castellammare (MP 113-3/8), Block 10, Lot 6, 17633 Castellammare Drive; Log # 35867", 1 p. Review letter dated 10 January 2002 and signed by D. Hsu, D. Prevost and P. Challita.
- 24) Michael, E.D. 2001, "Critiques of development documents, 17633 Castellammare Drive, Pacific Palisades, California, Lot 6, Block 10, Castellammare Tract, MB 113-3/8 APN 4416-012-016," August 1, 2001.
- 25) Michael, E.D. 2001, "MEC/Geotechnical Engineers, Inc. responses to Mr. Ben Leeds re 17633 Castellammare Drive, Pacific Palisades", 1 p. Geotechnical review letter dated 27 December 2001 and signed by E. D. Michael (CEG 157 CHG 574).
- 26) MEC/Geotechnical Engineers Inc. 2001, "Sequence of Grading Operations for 17633 Castellammare Drive, Pacific Palisades," November 28, 2001
- 27) MEC/Geotechnical Engineers Inc. 11/8/2001, "Response to Department Review Letter Dated 10/30/01 for 17633 Castellammare Drive, Pacific

Palisades", 12 p. geotechnical report dated 8 November 2001 and signed by S. A. Salehipour (G.E. 2579) and R. Eastman (CEG 423).

- 28) VPL Consulting, Inc 10/28/02, Structural Calculations Site Plan, 17633 Castellammare Dr., Pacific Palisades.
- 29) VPL Consulting, Inc. 5/14/01, Structural Calculations New Residence, 17633 Castellammare Dr., Pacific Palisades.
- 30) MEC/Geotechnical Engineers, Inc., 12/04/02, Response to State Geologist Questions and EDM Questions for 17633 Castellammare Dr., Pacific Palisades.
- 31) City of Los Angeles Local Coastal Development Permit No. ZA-2001-1780 (CDP).
- 32) City of Los Angeles Planning Department, Administrative Record for Local Coastal Development Permit No. ZA-2001-1780 (CDP)
- 33) City of Los Angeles, Department of Building and Safety, 2001, "Tract Castellammare (MP 113-3/8), Block 10, Lot 6, 17633 Castellammare Drive; Log # 34764-02", 2p Review letter dated November 29, 2001 and signed by D. Prevost and P. Challita.
- 34) West Coast Geotechnical, "Addendum geotechnical engineering report #3, Response to the City of Los Angeles Department of Building and Safety Review Sheet Log no 31171, Dated December 28 1992," August 17, 1994
- 35) U.S. Army Corps of Engineers and the U.S. Geological Survey, September 1976, Report On Landslide Study, Pacific Palisades Area.
- 36) University of California Cooperative Extension and California Department of Water Resources, "A Guide to 'Estimating Irrigation Water Needs of Landscape Plantings in California,'" August 2000.  
<http://www.owue.water.ca.gov>

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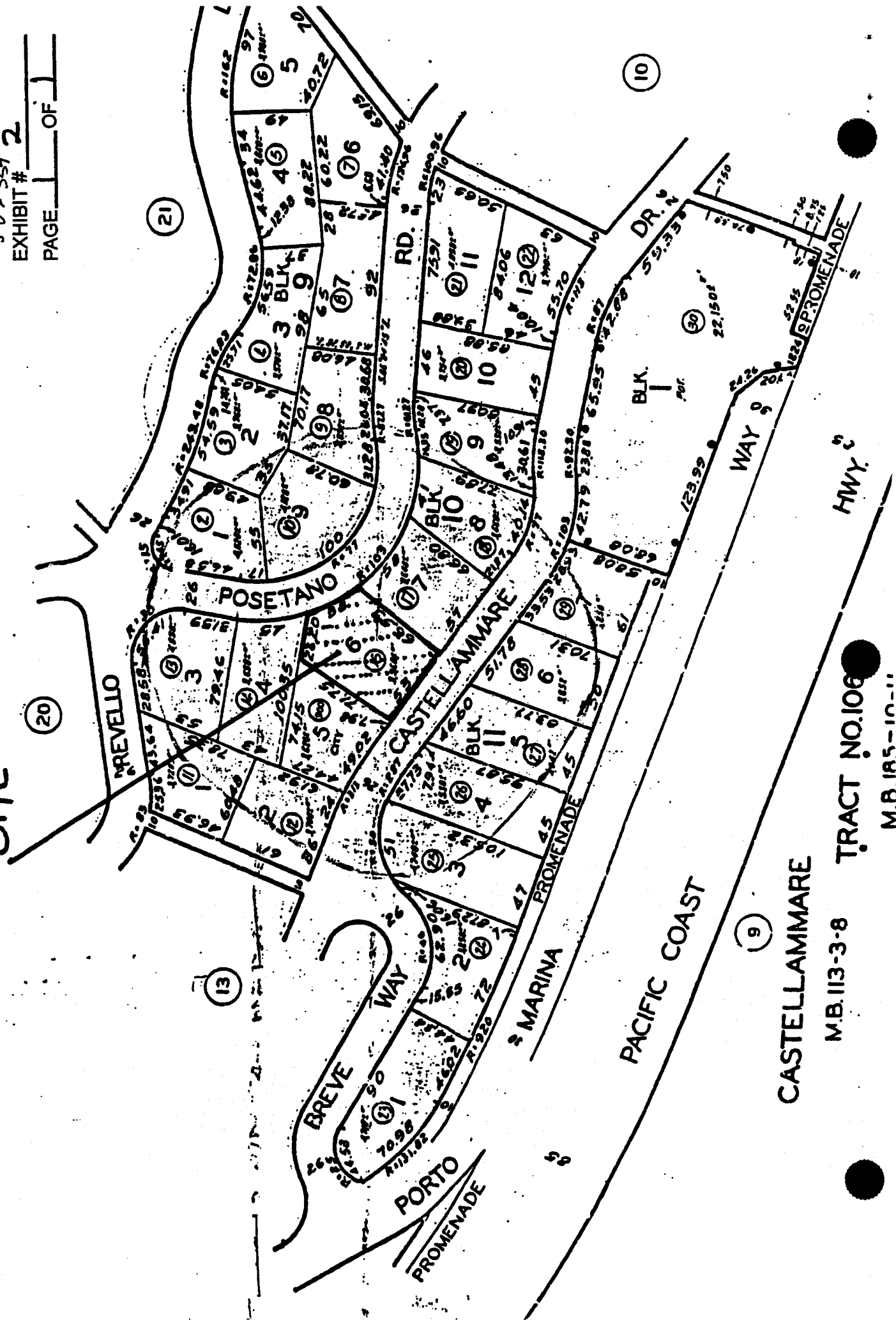


Project site  
OCEAN  
Leads 5-02-334

PACIFIC

COASTAL COMMISSION  
A-5-00L-02-276  
EXHIBIT # 1 location  
PAGE 1 OF 1

Site



CASTELLAMMARE

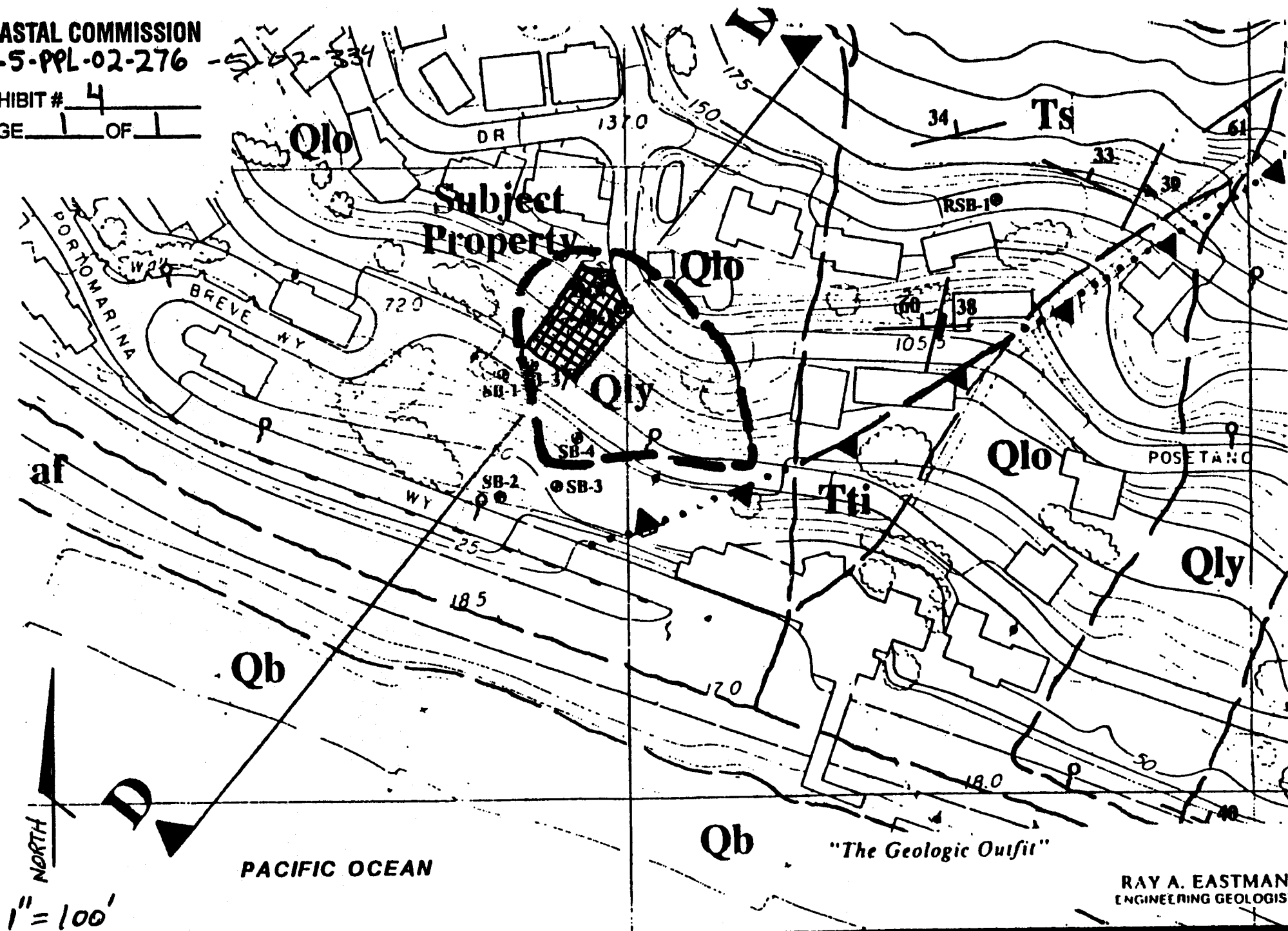
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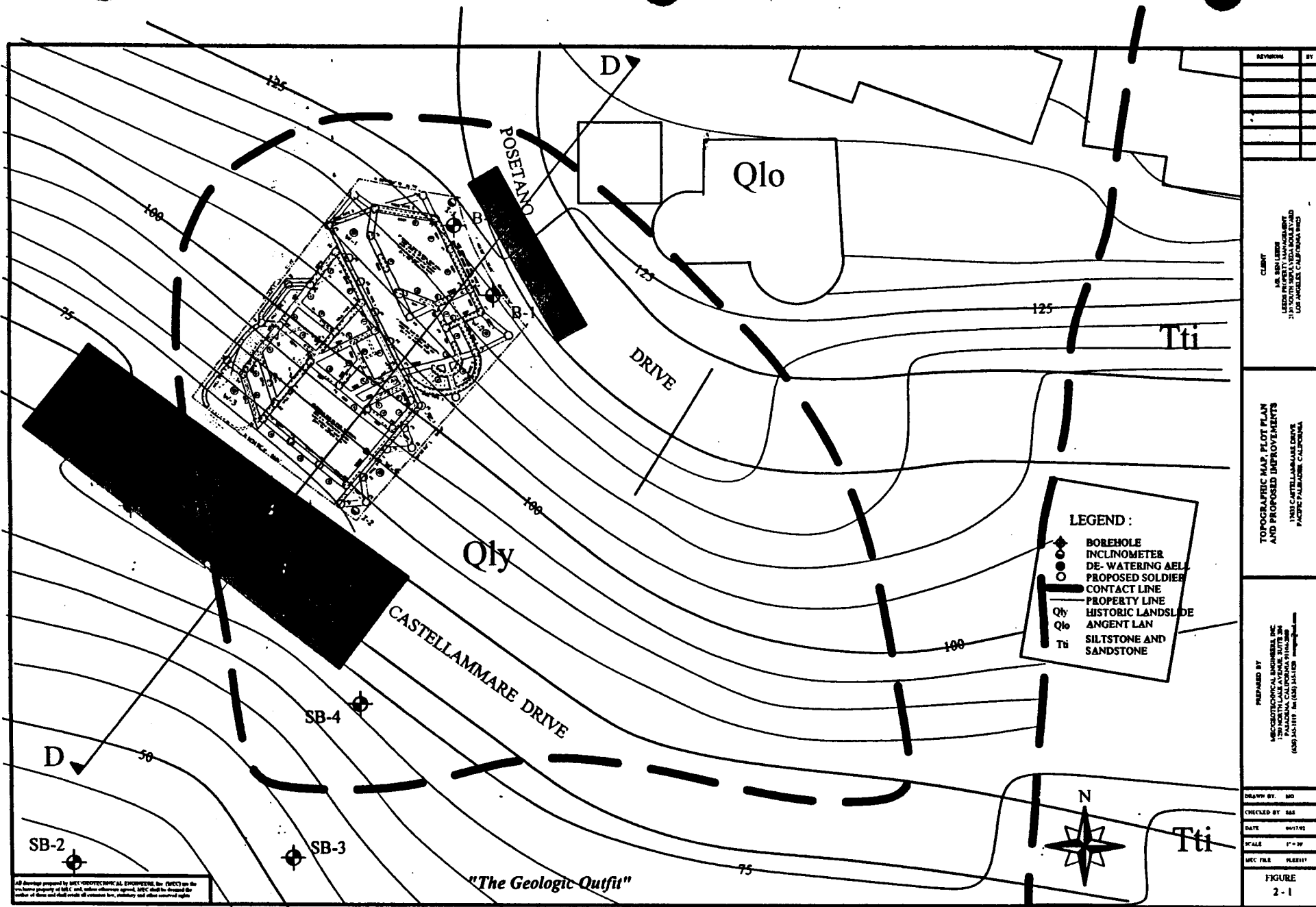






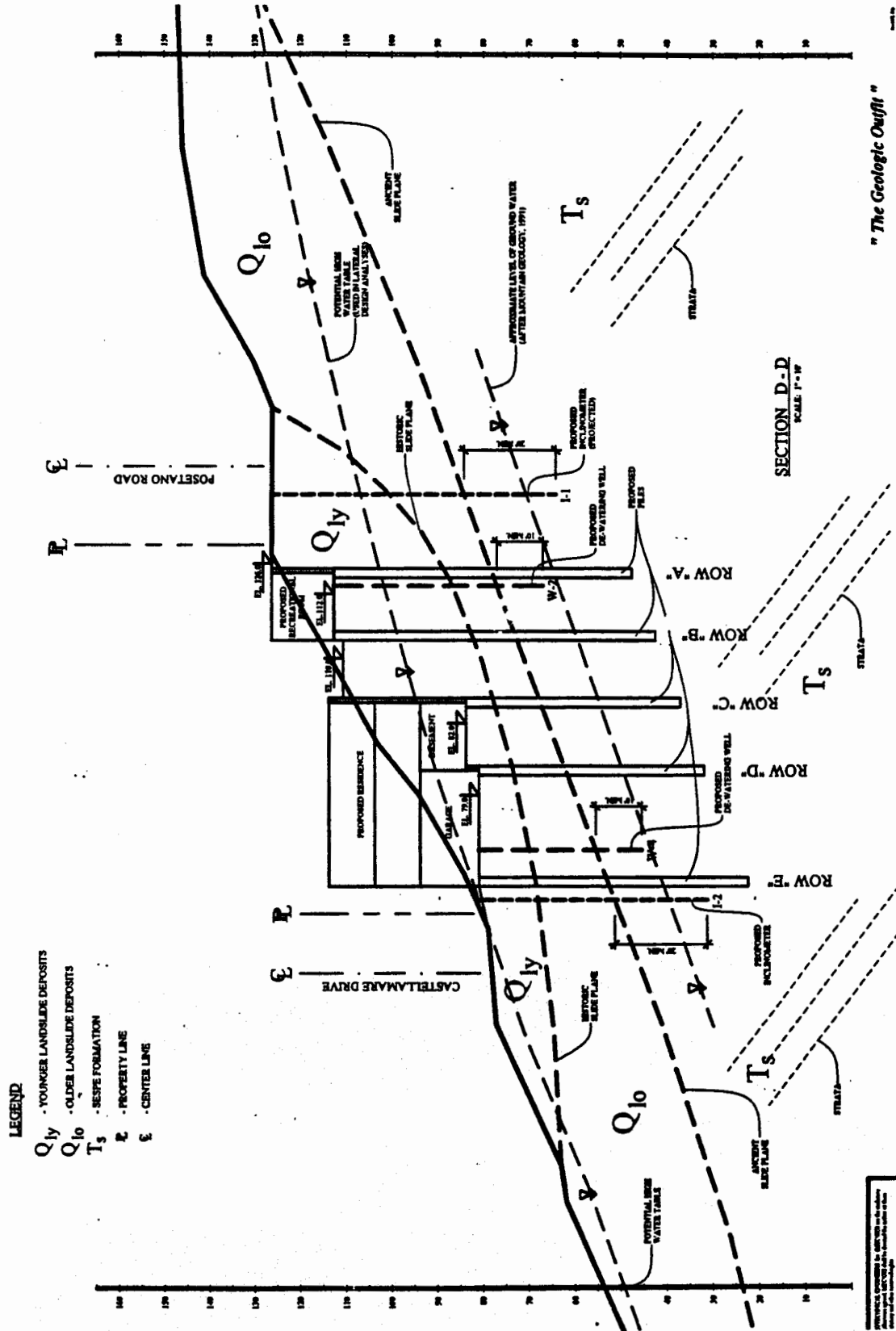
MAP REFERENCE: GEOLOGIC MAPS OF THE PACIFIC PALISADES AREA. LOS ANGELES, CALIFORNIA. BY JOHN T. MCGILL, 1989.

RAY A. EASTMAN  
ENGINEERING GEOLOGIST



All drawings prepared by MICROSISTEMAS ENGINEERING, INC. (MSE) are the exclusive property of MSE, and, without otherwise agreed, MSE shall be deemed the author of these and shall retain all copyright, patent and other reserved rights.

5-02-334

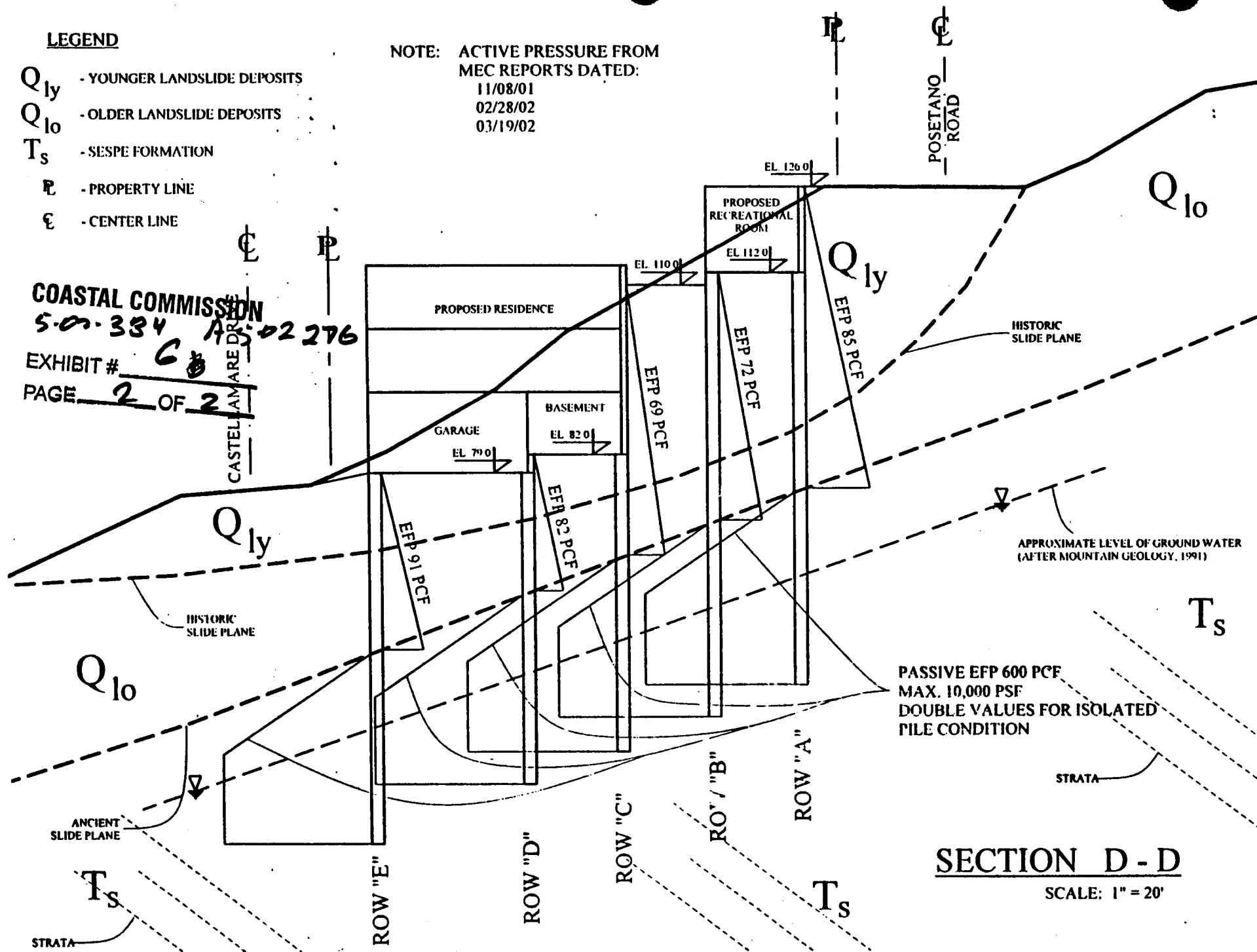


# **LEGEND**

- $Q_{ly}$  - YOUNGER LANDSLIDE DEPOSITS
- $Q_{lo}$  - OLDER LANDSLIDE DEPOSITS
- $T_s$  - SESPE FORMATION
- $\mathcal{P}$  - PROPERTY LINE
- $\mathcal{C}$  - CENTER LINE

NOTE: ACTIVE PRESSURE FROM  
MEC REPORTS DATED:  
11/08/01  
02/28/02  
03/19/02

COASTAL COMMISSION  
5-01-334 AS 2276  
EXHIBIT # C  
PAGE 2 OF 2



**SECTION D - D**  
SCALE: 1" = 20'



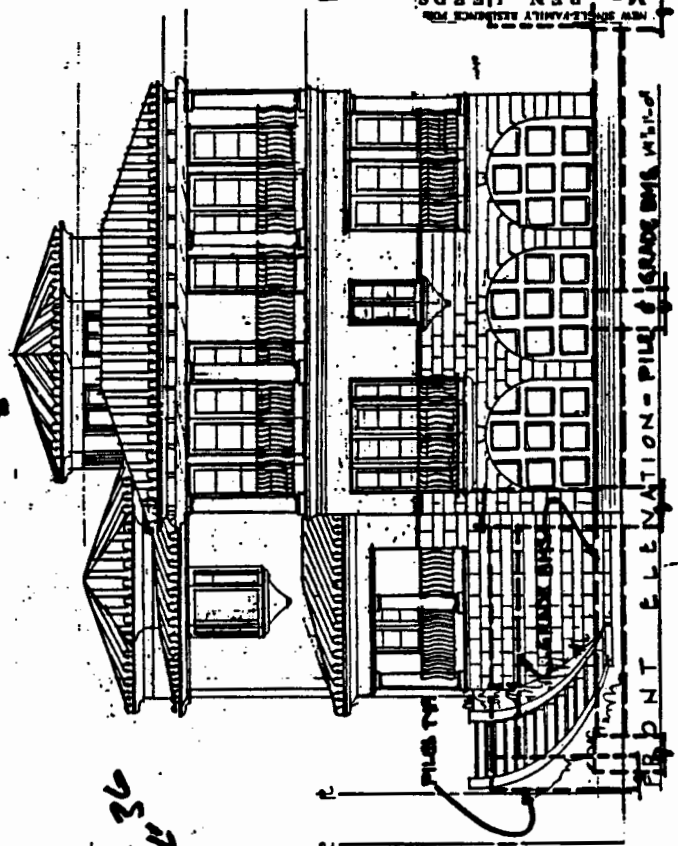
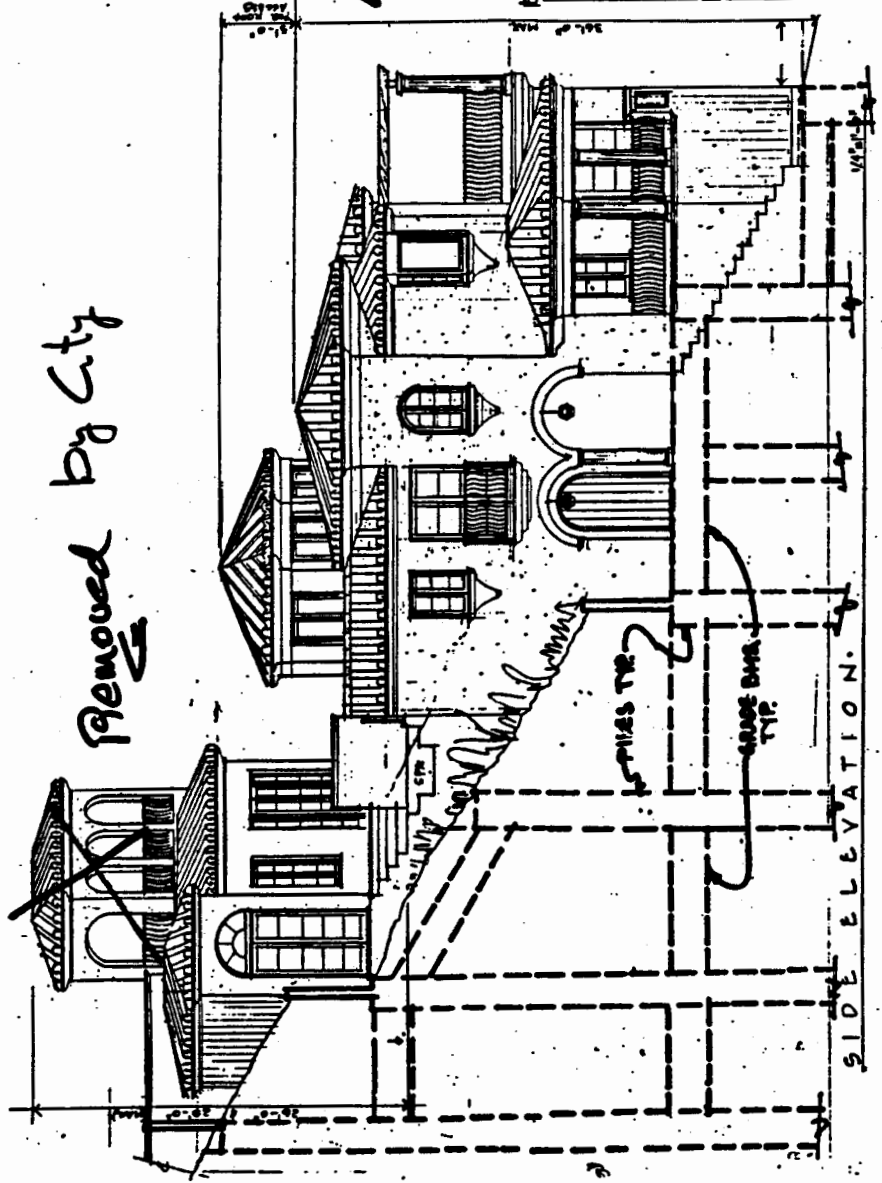
S.02.3341 COASTAL COMMISSION  
A-5-PPL-02-276

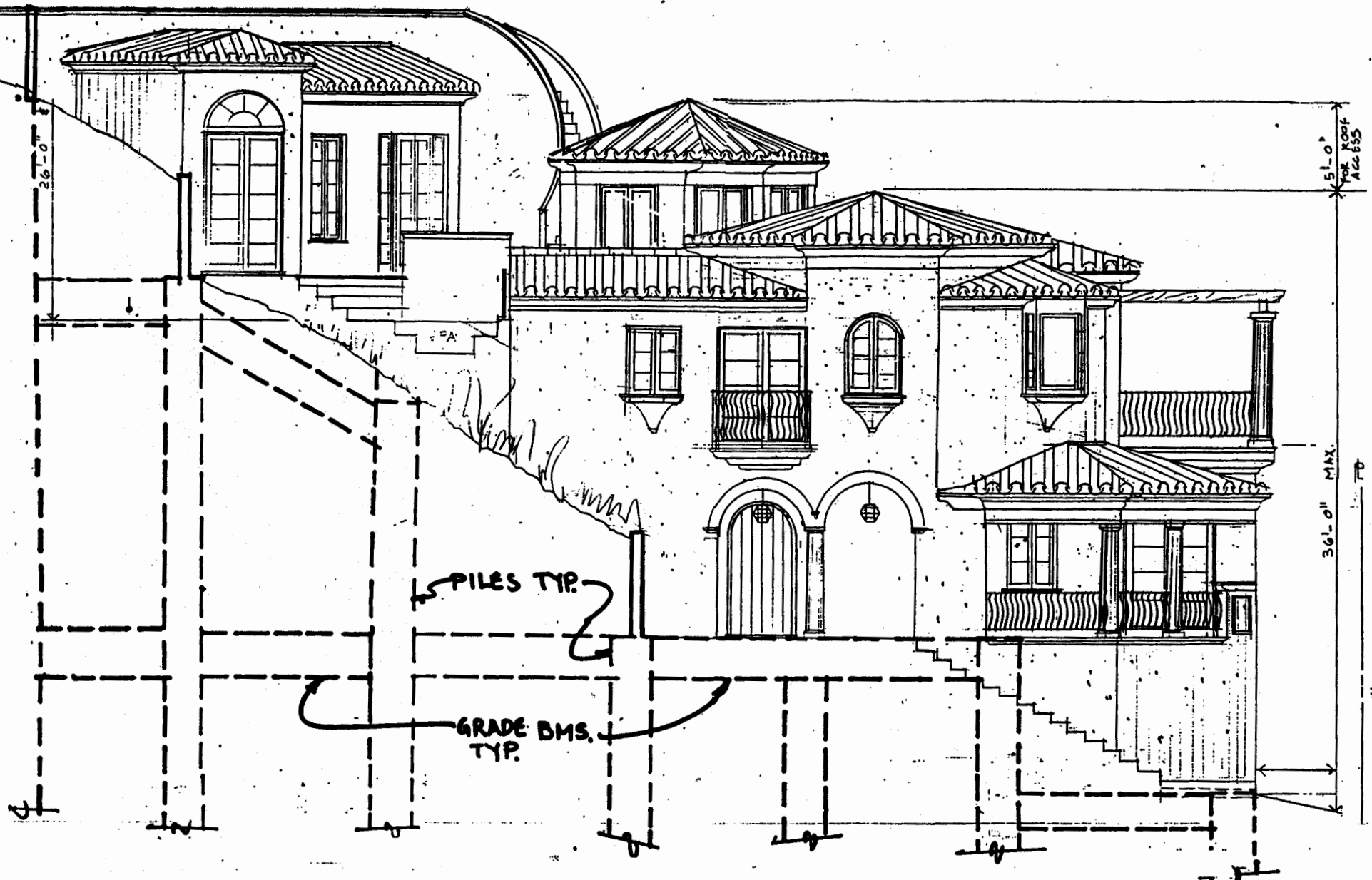
EXHIBIT # 8  
PAGE 1 OF 4

Original  
proposal

Removed by City

View from Castellammare  
Drive





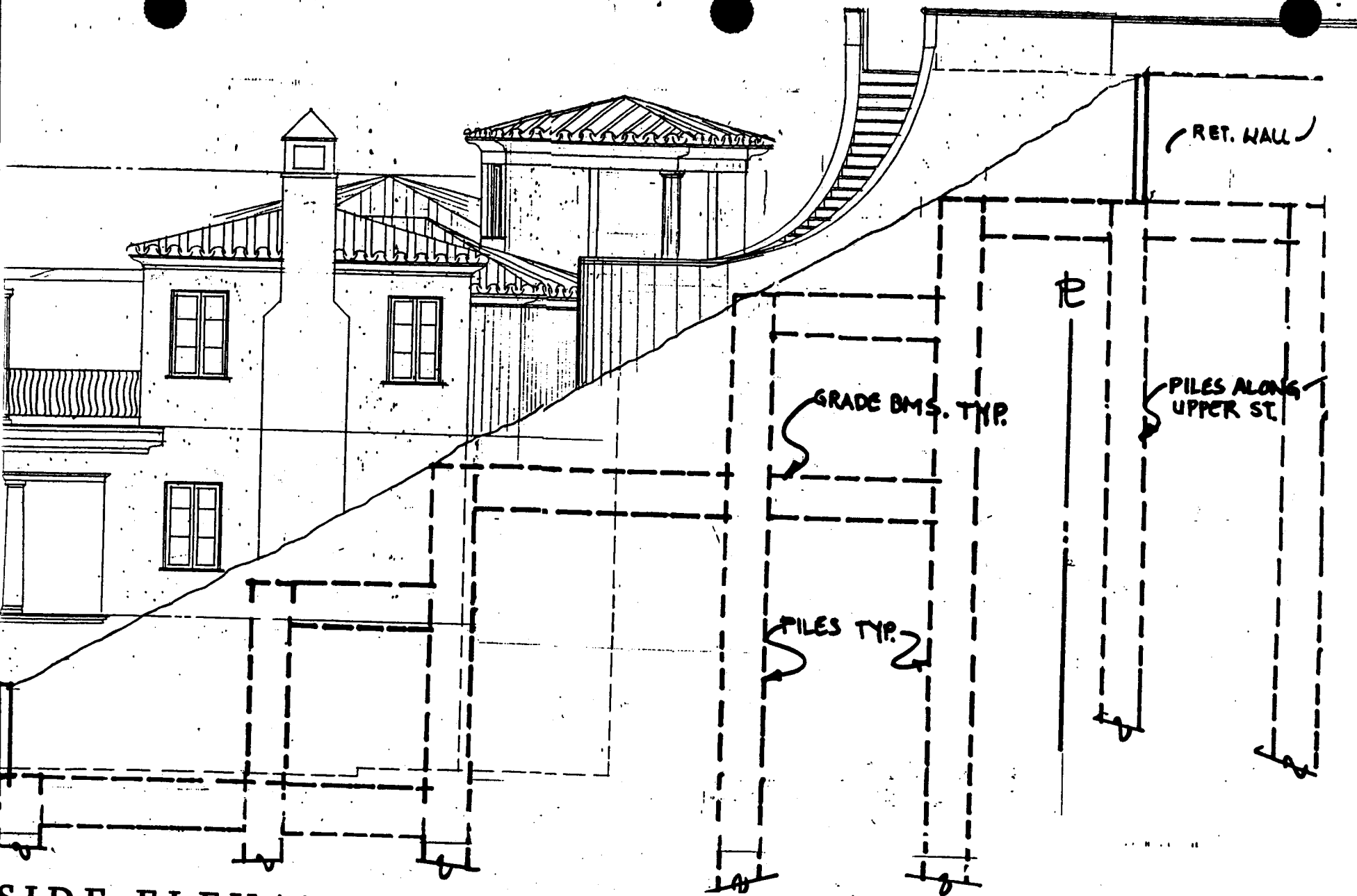
## SIDE ELEVATION

Ben Leeds Residence  
17623 Catellammare Dr.  
Los Angeles, California

Umberto Capiro Design  
4218 Glencoe Ave.  
Marina Del Rey CA 90262  
310-578-5734

AS PPL 02 276  
5-02-334  
Exhibit 8  
2 of 4





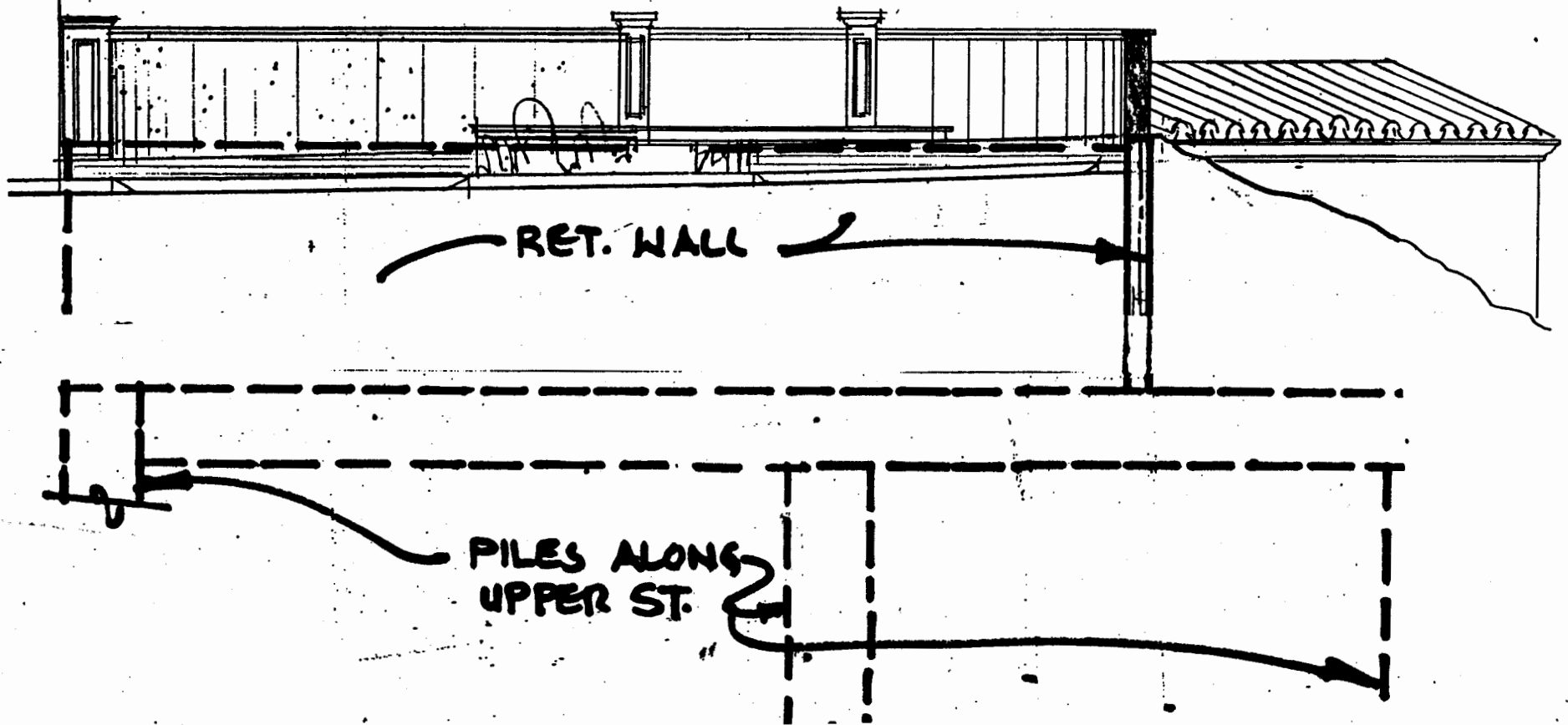
SIDE ELEVATION

A 5 PPL D2-276

Ben Leeds Residence  
17633 Catellammare Dr.  
Los Angeles, California

Umberto Capiro Design  
4218 Glencoe Ave.  
Marina Del Rey CA 90292  
310-578-5734

5-02-88  
Exhibit 8  
3/4



# UPPER STREET ELEVATION- Posettano Road

5.02 334  
 A5 PPL02376  
 Exhibit 6

# P. 4 of 4

Ben Leeds Residence  
 1703 Catellammare Dr.  
 Los Angeles, California

Umberto Capiro Design  
 4218 Glencoe Ave.  
 Marina Del Rey CA 902

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DEPARTMENT OF  
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LOS ANGELES, CA 90012

ANDREW A. ADELMAN, P.E.  
GENERAL MANAGER

TOM WHELAN  
EXECUTIVE OFFICER

April 17, 2002

Log # 35867-01  
SOILS/GEOLOGY FILE - 2  
For clarity this letter  
supercedes the prior  
Department approval letters  
dated 9/10/99 and 11/29/01.

Ben Leeds  
2130 S. Sepulveda Blvd.  
Los Angeles, CA 90025

TRACT: Castellammare (MP 113-3/8)  
BLOCK: 10  
LOT: 6  
LOCATION: 17633 Castellammare Dr

CURRENT REFERENCE  
REPORT/LETTER(S)

Geology/Soil Report

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Oversz Doc

Geology/Soil Report

Oversz Doc

Geology

REPORT  
NO.

9LEE117

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DATE(S) OF  
DOCUMENT

02/28/02

03/08/02

03/18/02

03/19/02

04/14/02

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04/15/02

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03/30/02

PREPARED BY

MEC

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E. D. Michael

PREVIOUS REFERENCE  
REPORT/LETTER(S)

Geology/Soil Report

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Soil Report

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REPORT  
NO.

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DATE(S) OF  
DOCUMENT

09/20/01

10/08/01

10/11/01

11/08/01

11/28/01

11/29/01

02/01/02

08/30/99

04/26/99

08/19/96

05/08/95

01/04/95

08/17/94

05/01/92

02/14/92

PREPARED BY

MEC

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West Coast Geotech.

COASTAL COMMISSION

A-5-PPL-02-276

EXHIBIT # 9

PAGE 1 OF 5

502.334



Geology Report  
**COASTAL COMMISSION**

**A-5-PPL-02-276**

EXHIBIT # 9  
PAGE 2 OF 5

502-2361

Department letter

2703r	09/20/91	..
2703	10/30/96	Mountain Geology
..	04/03/96	..
..	02/09/96	..
..	10/12/95	..
2703i	06/28/94	..
2703f	11/03/92	..
2703e	04/06/92	..
2703c	01/06/92	..
2703b	09/09/91	..
2703	05/30/91	..
27841-01	09/10/99	LADBS
34764-02	11/29/01	..
35867	02/14/02	..

The referenced reports concerning additional recommendations for a proposed single-family residence located on a site with historic and prehistoric landslides have been reviewed by the Grading Section of the Department of Building and Safety. According to the reports, five rows of piles are proposed to support the dwelling and stabilize the site. The pile design accounts for active landslide movement and for potential high groundwater conditions. De-watering measures are incorporated into the proposed construction as an additional stabilization element. The pile design, however, does not rely upon the de-watering system to provide site stability. This letter supercedes the prior Department approval letters dated 9/10/99 and 11/29/02. The reports are acceptable, provided the following conditions are complied with during site development:

1. Prior to the issuance of any permit, the owner shall file a notarized Covenant and Agreement with the Office of the Los Angeles County Recorder and the Department, regarding the proposed single-family dwelling to be constructed over a landslide and bordered by active and prehistoric landslides, stating that they are aware that the site is located in an area subject to landslides and unstable soil and that there is a potential for re-activation of the landslides bordering the property and that they agree to assume the responsibility for any necessary construction, maintenance or repair of the earth between the piles in the event the adjacent landslides remove lateral support. (Note: The Agreement must be approved by the Grading Section prior to being recorded.)
2. Prior to the issuance of any permit, the owner shall file a notarized Covenant and Agreement with the Office of the Los Angeles County Recorder and the Department, regarding the four proposed horizontal dewatering wells and four proposed vertical dewatering wells stating that they are aware that the wells may be important for assuring future site stability and that they agree to assume responsibility for periodic maintenance and/or repair and that they shall have the wells inspected, cleaned and repaired a minimum of once every five years or as deemed necessary, and that the pumps on the vertical wells shall be checked at the beginning of every official rainy season to verify that they are functioning properly. (Note: The Agreement must be approved by the Grading Section prior to being recorded.)
3. The five rows of soldier piles shall be designed for a minimum EFP times the pile spacing, as recommended in the reports and outlined below:
  - a) Piles located along row "A" shall be designed for a minimum EFP of 85 pcf applied to a depth of 48 feet below the top of the piles as shown on section D-D and in Table 1 of the report dated 11/08/01.
  - b) Piles located along row "B" shall be designed for a minimum EFP of 72 pcf applied to

a depth of 40 feet below the top of the piles as shown on section D-D and in Table 2 of the report dated 02/28/02.

- c) Piles located along row "C" shall be designed for a minimum EFP of 69 pcf applied to a depth of 42 feet below the top of the piles as shown on section D-D and in Table 2 of the report dated 02/28/02.
  - d) Piles located along row "D" shall be designed for a minimum EFP of 82 pcf applied to a depth of 22 feet below the top of the piles as shown on section D-D and in Table 1 of the report dated 03/19/02.
  - e) Piles located along row "E" shall be designed for a minimum EFP of 91 pcf applied to a depth of 29 feet below the top of the piles as shown on section D-D and in Table 1 of the report dated 03/19/02.
4. All piles shall derive passive resistance below the ancient landslide plane as shown on section D-D' and shall be embedded a minimum of 10 feet below the plane. The depth to the ancient landslide plane (lower plane) coincides with the depth to which the EFP outlined in condition #4 applies. The passive pressure shall not exceed 600 psf per foot of depth and to a maximum of 10,000 psf. The passive pressure may be doubled for isolated piles. Piles are considered isolated when spaced more than 2½ diameters on center, as recommended, as specified in the report dated 8/17/1994 by West Coast Geotechnical.
  5. The construction of the piles and walls shall follow the sequence of construction that is recommended in the report dated 11/28/01, however, the maximum height of the temporary unsupported vertical cuts between the piles shall be no more than 5 feet. The gunite retaining wall shall then be constructed between the piles before the next 5-foot vertical cut is made, as recommended in the report dated 04/14/02.
  6. The five rows of piles shall extend across the entire site, with the end piles located at the side-yard property lines.
  7. A minimum of four horizontal dewatering wells shall be installed at the toe of the slope, along Castellammare Drive; the drains shall extend beneath the entire site and under Posetano Road, as shown on the geologic map dated May 1991, by Mountain Geology.
  8. The horizontal dewatering wells shall be installed under the supervision of the geologist and shall be completed prior to beginning framing of the dwelling.
  9. In addition to the horizontal drains, a minimum of four vertical de-watering wells shall be installed, as recommended; the wells shall extend to a minimum depth such that the sump pumps operate a minimum of 10 feet below the bottom of the landslide plane, as recommended in the report dated 10/11/01 by MEC.
  10. A minimum of two slope inclinometers shall be installed and monitored, as recommended in the report dated 04/15/02; a minimum of three monthly readings shall be taken before construction begins. At conclusion of the three readings and prior to start of construction, a report containing the inclinometer data results, consultants findings, and recommendations shall be submitted to the Department for approval. Additional readings may be required as determined by the Department.
  11. A report containing the inclinometer data results, consultants findings, and recommendations shall be submitted to the Department within 7 days of each reading during construction. The inclinometers may be abandoned 24 months after installation upon Department approval of

- .. a favorable report by the consultants.
12. Existing wooden walls within the property boundary shall be removed.
  13. A grading bond shall be posted for the proposed grading and pile-supported walls.
  14. A bond shall be posted with the Department of Public Works, Street Maintenance Division, for the street.
  15. Suitable arrangements shall be made with the Department of Public Works for the proposed removal of support and/or retaining of slopes adjoining the public way.
  16. For grading involving import or export of more than 1000 cubic yards of earth materials within the *grading hillside area*, approval is required by the Board of Building and Safety. Application for approval of the haul route must be filed with the Grading Section. Processing time for application is approximately 8 weeks to hearing plus 10-day appeal period.
  17. The geologist and soils engineer shall review and approve the detailed plans prior to issuance of any permits. This approval shall be by signature on the plans which clearly indicates that the geologist and soils engineer have reviewed the plans prepared by the design engineer and that the plans include the recommendations contained in their reports.
  18. Any recommendations prepared by the consulting geologist and/or the soils engineer for correction of geological hazards found during grading shall be submitted to the Department for approval prior to utilization in the field.
  19. All new fill slopes shall be no steeper than 2:1.
  20. All graded, brushed or bare slopes shall be planted with low-water consumption, native-type plant varieties recommended by a landscape architect.
  21. Adequate temporary erosion control devices acceptable to the Department, and if applicable the Department of Public Works, shall be provided and maintained during the rainy season.
  22. All recommendations of the reports which are in addition to or more restrictive than the conditions contained herein shall be incorporated into the plans.
  23. The applicant is advised that the approval of this report does not waive the requirements for excavations contained in the State Construction Safety Orders enforced by the State Division of Industrial Safety.
  24. A grading permit shall be obtained.
  25. A copy of the subject and appropriate referenced reports and this approval letter shall be attached to the District Office and field set of plans. Submit one copy of the above reports to the Building Department Plan Checker prior to issuance of the permit.
  26. The geologist and soil engineer shall inspect all pile excavations and retaining wall excavations to determine that conditions anticipated in the report have been encountered and to provide recommendations for the correction of hazards found during construction.
  27. At the conclusion of pile drilling, an as-built report shall be submitted to the Department containing the location, depth, and the geologic conditions encountered during the inspection of the excavations.

28. All man-made fill shall be compacted to a minimum 90 percent of the maximum dry density of the fill material per the latest version of ASTM D 1557; or 95 percent where less than 15 percent fines passes 0.005mm.
29. All roof and pad drainage shall be conducted to the street in an acceptable manner.
30. Continuous gravel drainage blanket shall be provided behind the pile supported retaining walls as part of the retaining wall subdrainage system.
31. Prior to issuance of the building permit, the design of the subdrainage system required to prevent possible hydrostatic pressure behind retaining walls shall be approved by the soils engineer and accepted by the Department. Installation of the subdrainage system shall be inspected and approved by the soils engineer and by the City grading inspector.
32. Pile caisson and/or isolated foundation ties are required by Code Section 91.1807.2. Exceptions and modification to this requirement are provided in Rule of General Application 662.
33. Prior to the placing of compacted fill, a representative of the consulting Soils Engineer shall inspect and approve the bottom excavations. He shall post a notice on the job site for the City Grading Inspector and the Contractor stating that the soil inspected meets the conditions of the report, but that no fill shall be placed until the City Grading Inspector has also inspected and approved the bottom excavations. A written certification to this effect shall be filed with the Department upon completion of the work. The fill shall be placed under the inspection and approval of the Foundation Engineer. A compaction report shall be submitted to the Department upon completion of the compaction.
34. Prior to the pouring of concrete, a representative of the consulting Soil Engineer shall inspect and approve the footing excavations. He shall post a notice on the job site for the City Building Inspector and the Contractor stating that the work so inspected meets the conditions of the report, but that no concrete shall be poured until the City Building Inspector has also inspected and approved the footing excavations. A written certification to this effect shall be filed with the Department upon completion of the work.
35. The dwelling shall be connected to the public sewer system.
36. A registered grading deputy inspector approved by and responsible to the project geotechnical engineer shall be required to provide continuous inspection for the proposed shoring and site grading.

DAVID HSU  
Chief of Grading Section

  
DANA PREVOST  
Engineering Geologist II

DP/PC:dp/pc  
35867-01  
(213) 977-6329  
cc: MEC  
WLA District Office

  
PASCAL CHALLITA  
Geotechnical Engineer I

COASTAL COMMISSION

5-02-2341 A-5-DPL-02-276

EXHIBIT # 4

PAGE 5 OF 5



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MAYOR

DEPARTMENT OF  
BUILDING AND SAFETY  
801 NORTH FLORENCE STREET  
LOS ANGELES, CA 90012

ANDREW A. ADELMAN, P.E.  
GENERAL MANAGER  
TOM WHELAN  
EXECUTIVE OFFICER

June 11, 2002

CALIFORNIA  
COASTAL COMMISSION

APPROVAL LETTER  
Log # 36867  
SOILS/GEOLOGY FILE - 2

Ben Leeds  
2130 S. Sepulveda Blvd  
Los Angeles, CA 90025

TRACT: Castellammare (MP 113-3/8)  
BLOCK: 10  
LOT: 6  
LOCATION: 17633 Castellammare Dr

CURRENT REFERENCE  
REPORT/LETTER(S)  
Soil Report  
REPORT  
NO.  
9LEE117

DATE(S) OF  
DOCUMENT  
03/17/02

PREPARED BY  
MEC

PREVIOUS REFERENCE  
REPORT/LETTER(S)  
Dept. Approval Letter  
Geology/Soil Report  
REPORT  
NO.  
33867-01  
9LEE117

DATE(S) OF  
DOCUMENT  
04/17/02  
04/15/02

PREPARED BY  
LADES  
MEC

The referenced report concerning proposed revisions to the requirement for slope inclinometers has been reviewed by the Grading Section of the Department of Building and Safety. The report is acceptable, provided the following conditions are complied with during site development:

1. All conditions of the above referenced Department letter shall apply, except for No. 10, as modified by this approval.
2. The inclinometer on the lower portion of the site may be installed after the start of grading, as recommended.
3. The inclinometer at the top of the slope shall be installed and monitored in accordance with condition No. 10 of the Department letter dated 04/17/02.
4. The inclinometers shall be located as shown in the report dated 04/15/02.

DAVID HSU  
Chief of Grading Section

DANA PREVOST  
Engineering Geologist II

DP/TG:dp/tg  
36867  
(213) 977-6329

cc: MEC  
WLA District Office

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MAR 17 2003

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COASTAL COMMISSION

5-62-334 / 195-02 276

EXHIBIT # 10

PAGE 1 OF 1

## CALIFORNIA COASTAL COMMISSION

45 FREMONT, SUITE 2000  
SAN FRANCISCO, CA 94105-2219  
VOICE AND TDD (415) 904-5200  
FAX (415) 904-5400

EXHIBIT #

PAGE

OF

11

7

5-02-354 115.0000  
02.276  
Staff Geologist  
Letter

12 March 2003



## GEOTECHNICAL REVIEW MEMORANDUM

To: Melissa Stickney, Coastal Program Analyst  
From: Mark Johnsson, Staff Geologist  
Re: A-5-PPL-02-276 (Leeds)

In regard to the above referenced appeal, I have reviewed the following documents:

- 1) MEC/Geotechnical Engineers Inc. 2002, "Response to State Geologist Questions and EDM Questions for 17633 Castellammare Drive, Pacific Palisades", 6 p. geotechnical report dated 4 December 2002 and signed by S. A. Salehipour (G.E. 2579) and R. Eastman (CEG 423).
- 2) City of Los Angeles, Department of Building and Safety, 2002, "Tract Castellammare (MP 113-3/8), Block 10, Lot 6, 17633 Castellammare Drive; Log # 35867", 1 p. Review letter dated 11 June 2002 and signed by D. Hsu and D. Prevost.
- 3) Michael, E.D. 2002, "Response to questions by Jack Allen re: Coastal Commission No. 5-00-407, 17633 Castellammare Drive, Pacific Palisades", 4 p. Geotechnical review letter dated 8 August 2002 and signed by E. D. Michael (CEG 157 CHG 574).
- 4) MEC/Geotechnical Engineers Inc. 2002, "Inclinometer installation for 17633 Castellammare Drive, Pacific Palisades", 2 p. geotechnical report dated 17 May 2002 and signed by S. A. Salehipour (G.E. 2579).
- 5) City of Los Angeles, Department of Building and Safety, 2002, "Tract Castellammare (MP 113-3/8), Block 10, Lot 6, 17633 Castellammare Drive; Log # 35867-01", 5 p. Review letter dated 17 April 2002 and signed by D. Hsu, D. Prevost and P. Challita.
- 6) MEC/Geotechnical Engineers Inc. 2002, "Response to City Questions for 17633 Castellammare Drive, Pacific Palisades", 5 p. geotechnical report dated 15 April 2002 and signed by S. A. Salehipour (G.E. 2579) and R. Eastman (CEG 423).
- 7) MEC/Geotechnical Engineers Inc. 2002, "Response to City Questions for 17633 Castellammare Drive, Pacific Palisades", 5 p. geotechnical report dated 14 April 2002 and signed by S. A. Salehipour (G.E. 2579) and R. Eastman (CEG 423).
- 8) MEC/Geotechnical Engineers Inc. 2002, "Response to City Questions for 17633 Castellammare Drive, Pacific Palisades", 5 p. geotechnical report dated 19 March 2002 and signed by S. A. Salehipour (G.E. 2579) and R. Eastman (CEG 423).
- 9) MEC/Geotechnical Engineers Inc. 2002, "Response to City Review Letter Dated 2/14/02 for 17633 Castellammare Drive, Pacific Palisades", 5 p. geotechnical report dated 18 March 2002 and signed by S. A. Salehipour (G.E. 2579) and R. Eastman (CEG 423).
- 10) MEC/Geotechnical Engineers Inc. 2002, "Response to City Review Letter Dated 2/14/02 for 17633 Castellammare Drive, Pacific Palisades", 6 p. geotechnical report dated 28 February 2002 and signed by S. A. Salehipour (G.E. 2579) and R. Eastman (CEG 423).
- 11) City of Los Angeles, Department of Building and Safety, 2002, "Tract Castellammare (MP 113-3/8), Block 10, Lot 6, 17633 Castellammare Drive; Log # 35867", 2 p. Review letter dated 14 February 2002 and signed by D. Hsu, D. Prevost and P. Challita.

Exhibit H

P<sup>2</sup>  
S.02.224 / A5-02-276

- 12) MEC/Geotechnical Engineers Inc. 2002, "Response to critique dated 12/27/01 by others for 17633 Castellammare Drive, Pacific Palisades", 8 p. geotechnical report dated 1 February 2002 and signed by S. A. Salehipour (G.E. 2579) and R. Eastman (CEG 423).
- 13) City of Los Angeles, Department of Building and Safety, 2002, "Tract Castellammare (MP 113-3/8), Block 10, Lot 6, 17633 Castellammare Drive; Log # 35867", 1 p. Review letter dated 10 January 2002 and signed by D. Hsu, D. Prevost and P. Challita.
- 14) Michael, E.D. 2001, "MEC/Geotechnical Engineers, Inc. responses to Mr. Ben Leeds re 17633 Castellammare Drive, Pacific Palisades", 1 p. Geotechnical review letter dated 27 December 2001 and signed by E. D. Michael (CEG 157 CHG 574).
- 15) MEC/Geotechnical Engineers Inc. 2001, "Response to Department Review Letter Dated 10/30/01 for 17633 Castellammare Drive, Pacific Palisades", 12 p. geotechnical report dated 8 November 2001 and signed by S. A. Salehipour (G.E. 2579) and R. Eastman (CEG 423).

In addition, I visited the site on 4 December 2002, where I met with the applicant and his geotechnical engineer, Sassan Salehipour. I previously had had a telephone conversation with Mr. Salehipour (on 6 November 2002), in which I asked for a response to several questions and concerns; these are addressed in reference (1). Finally, I have discussed the project with Dana Prevost, of the City of Los Angeles Department of Building and Safety (by telephone on 4 November 2002).

The project site is on the upper corner of a relatively large composite landslide that is well known, having been previously mapped by the U.S. Geological Survey. An ancient landslide, with a slide plane approximately 45 feet below the surface in the area of the parcel, is overlain by an active or recently active landslide with a shallower slide plane, at approximately 15-30 feet depth. The composite slide encompasses the entire parcel, as well as several other parcels to the east and south, as well as portions of both Posetano and Castellammare Drive. Although there is some dispute as to the recent history of movement, the City has required, and the applicant has agreed, to consider the entire slide mass on and above the subject property to be active and to design foundation systems that can resist any slide movement. The City further required that a minimum of four horizontal drains (hydroaugers) and four vertical de-watering wells be installed, as well as two slope inclinometers to monitor potential landslide movement prior to construction. Despite the requirement for a dewatering system, a very high water table, daylighting at the downslope end of the parcel, was assumed in calculating the forces to be resisted by the foundation system. That is, dewatering was required by the City, but structural calculations were undertaken under the assumption that dewatering efforts would be ineffective. Further, rock shear strength parameters were derived very conservatively by back-calculating cohesion and friction values for an assumed slide plane, and applying these values to the entire soil mass, rather than solely to the slide plane as is common practice. In effect, the foundation system, consisting of five rows of deep caissons and several retaining walls, was required by the City to be designed to resist active landslide pressures above the ancient slide plane, ensuring that if the landslide were to move, the foundation system would resist movement on the subject lot, even as the landslide moves downslope on adjacent parcels.

I should point out that this project has generated a great deal of local controversy, and I have perused, but not formally reviewed, several dozen previous geotechnical letters and reports in addition to references 1-15, submitted by both potential developers and opponents to the development of the site, as well as numerous review letters from the City of Los Angeles

Department of Building and Safety. These letters and reports date back to 1991, and reflect a series of concerns raised by interested parties and by the City. The reviewed documents cited above (references 2-15) represent the culmination of the City's review of these issues. After my review of these documents, and my discussions with Mr. Prevost, I was satisfied that all geotechnical issues had been adequately addressed with three exceptions:

- 1) A seismic analysis of slope stability and design adequacy was needed
- 2) The inclinometer readings collected to date should be presented.
- 3) Concerns raised by E.D. Michaels, geologist for opponents to the project, concerning the effects of seepage forces on the slope stability calculations should be addressed.

Reference (1) is the Mr. Salehipour's answers to these issues.

Reference (1) contains a limit equilibrium pseudo-static slope stability analysis in which a horizontal seismic coefficient of 0.15 g is applied to the critical cross section through the property. Assuming a factor of safety of 1.1, lateral design values were calculated for each row of piles. It was found that these values are less conservative than the values derived for the static slope stability analysis (and a factor of safety of 1.5), demonstrating that the static design adequately addresses seismic forces, using the same, conservative, assumptions as were applied to the static analysis. The structural calculations for deriving pile design were provided in a report by VPL Consulting dated 28 October 2002, which I understand Coastal Commission Staff Engineer Lesley Ewing will be reviewing in order to provide you with her analysis of the engineering aspects of the design.

Reference (1) also contains a report on inclinometer readings taken between 31 May 2002 and 31 October 2002. Maximum apparent movement occurs at the top of the inclinometer casing, is less than one tenth of an inch in total, and shows no systematic trend. Further, there is no indication of a discontinuity in movement at depth such as would indicate the presence of a slide plane. Reference (1) indicates that the minor amount of apparent movement is within the tolerance of the inclinometer, and I concur that the measurements examined show no evidence of slide movement. It must be pointed out that these measurements extend only over the dry season; continued monitoring, as required by the City of Los Angeles, should be continued through the rainy season prior to construction. I would recommend a condition that these reports be submitted and approved by the Executive Director prior to issuance of a CDP.

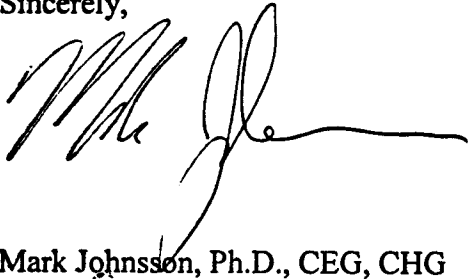
The most recent review letter of Mr. E.D. Michaels (reference 3), consulting geologist for the appellants, raised a number of issues that he believed remained unresolved as of 8 August 2002. Most serious was an apparent error in the calculation of seepage forces in the slope stability calculations. Mr. Michaels indicated that seepage forces reported in an MEC Geotechnical Report dated 8 October 2001 are too small, and are even negative when they should be positive. In reference (1), Mr. Salehipour shows that the apparent error is actually a result of incomplete calculations. When the horizontal component of the upward seepage force is added, and the forces are corrected for the pressure head in each block, the values calculated by Mr. Michaels

agree with those reported by Mr. Salehipour. I concur that seepage forces have been handled correctly in the analysis.

With these three concerns adequately addressed, I concur with the City's assessment that the proposed project can be undertaken so as to assure stability of the site and of the surrounding area. In order to assure that this is the case, I recommend that a special condition be imposed requiring adherence to all recommendations put forth in the geologic report dated 8 November 2001, and in the City review letter dated 17 April 2002, as modified by the City review letter dated 11 June 2002.

I hope that this review is helpful. Please do not hesitate to contact me if you have additional questions.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Mark Johnsson', with a long horizontal flourish extending to the right.

Mark Johnsson, Ph.D., CEG, CHG

**CALIFORNIA COASTAL COMMISSION**

45 FREMONT, SUITE 2000  
SAN FRANCISCO, CA 94105-2219  
VOICE AND TDD (415) 904-5200  
FAX (415) 904-5400

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South Coast Region

MAR 3 2003



CALIFORNIA  
COASTAL COMMISSION

March 12, 2003

TO: Melissa Stickney, Coastal Program Analyst

FROM: Lesley Ewing, Coastal Engineer *Lesley Ewing*

SUBJECT: A-5-PPL-02-276 (Leeds)

**COASTAL COMMISSION**

501-234 / 1502 276

EXHIBIT # 12

PAGE 1 OF 2

I have reviewed the following report:

- Structural Calculations, Site Plan for 17633 Castellammare Drive, Pacific Palisades, CA, prepared by Mardiros Markarian, VLP Consulting, dated 10-28-2002.
- April 17, 2002 Letter from City of Los Angeles Soils and Geology File, to Ben Leeds

In addition, I looked through a December 4, 2002 Response to State Geologist Questions and SDM Questions, prepared by MEC/Geotechnical Engineers. The later document was reviewed to place the engineering calculations into context and not to assess the geotechnical information.

The proposed development will use 5 rows of piles and several retaining walls to provide site stability. The piles have been designed with conservative soil conditions that were prescribed by the City of Los Angeles. The pilings will be 36" in diameter, placed 8' on center. These pilings will all extend well below the ancient slide mass, with embedment depths of 76 feet for Row A, 51.6' for Row B, 50.3' for Row C, 21.2' for Row D and 32.8' for Row E. The pile size, pile density and embedment depth are adequate to address the identified slide forces and maintain a stable development. In addition retaining walls will be constructed to increase overall site stability.

This is a difficult site to develop safely. The engineering plans will provide gross stability for the conditions and against the slide problems identified at this time. The retaining walls will reduce surficial soil movement. The dewatering wells will reduce the possibility of unexpected problems with soil saturation and seepage. All these actions will provide a site that can be developed with an acceptable level of safety. The engineering for this site will assure site stability for the identified conditions. Even with these engineering efforts, this site poses may possible risks. The engineering efforts will not eliminate these risks, but will reduce them. The engineering has not been designed to mitigate for massive changes to the surrounding area as a result of the identified slides. In addition, some of the engineering measures will require on-going maintenance and repair for as long as the site is developed. Specifically, the dewatering

systems must be maintained and repaired or they will not provide the level of site protection that is anticipated in the design.

The current or future property owners will have to undertake maintenance of the dewatering system and may have to take additional remedial measures if other parts of the landslide continue to move. The City has required that the applicant file two notarized Covenant and Agreement documents to address this issues. The first concerns the construction on an active landslide and requires that the property owner assume responsibility for any necessary construction, maintenance or repair of the earth between the pilings in the event the adjacent landslides remove lateral support. The second concerns the four vertical and four horizontal dewatering wells and requires the property owner assume responsibility for periodic repair and maintenance of the wells and pumps. These cover two very important issues. The long-term stability of the site can only be possible these ongoing responsibilities. Staff should insure that these property owner responsibilities continue to be required with the appeal, and that neither current nor future property owners be allowed to change either Covenant and Agreement only approval by both the City and the Commission. These Covenant and Agreement documents address issues that are necessary to the long-term acceptable safety of this site. Current and future property owners must be aware of their responsibilities for maintaining and possibly augmenting the current engineering measures that are develop to stabilize this site with an acceptable factor of safety.

Exhibit 12  
p2  
5.02.234  
5.02.2276



E.D. MICHAEL, CONSULTING GEOLOGIST  
ENGINEERING GEOLOGY ☐ HYDROGEOLOGY ☐ FORENSICS  
Calif. Reg. Geologist 270; Cert. Eng. Geologist 157; Cert. Hydrogeologist 574  
6225 Bonsall Drive, Malibu, California 90265  
310.457.9319; FAX 310.457.9217

COASTAL COMMISSION

A-5-PPL-02-276

August 8, 2002

EXHIBIT # 13

PAGE 1 OF 4

Pacific Palisades Residents Association  
Post Office Box 617,  
Pacific Palisades, California 90272

**Subject:** Response to Questions by Jack Allen re: Coastal Commission No. 5-00-407,  
17633 Castellammare Drive, Pacific Palisades.

Dear Sirs:

Mr. Jack Allen, on behalf of PPRA, has requested from me answers to the following questions, given *verbatim* in italics below, regarding the subject project. My answers to those questions are based upon a review of my file on the matter and the following four references:

[1] Salehipour, Sassan A., and Ray Eastman, 2001, Response to Department's review letter dated 10/3/01 for 17633 Castellammare Drive, Pacific Palisades: MEC/Geotechnical Engineers, Inc. rpt. (MEC File Number 9LEE117) to Mr. Ben Leeds, October 8.

[2] \_\_\_\_\_, 2002, Response to City review letter dated 02/14/02 for 17633 Castellammare Drive, Pacific Palisades: MEC/Geotechnical Engineers, Inc. rpt. (MEC File Number 9LEE117) to Mr. Ben Leeds, March 8.

[3] \_\_\_\_\_, 2002, Response to City review letter dated 02/14/02 for 17633 Castellammare Drive, Pacific Palisades: MEC/Geotechnical Engineers, Inc. rpt. (MEC File Number 9LEE117) to Mr. Ben Leeds, March 18.

[4] \_\_\_\_\_, 2002, Response to City questions for 17633 Castellammare Drive, Pacific Palisades: MEC/Geotechnical Engineers, Inc. rpt. (MEC File Number 9LEE117) to Mr. Ben Leeds, April 14.

In reviewing these references, the contents of my reports to the Pacific Palisades Residents Association dated December 27, 2001, August 1, 2001, and March 30, 2002, hereinafter Reference [5], [6], and [7] respectively, are incorporated herein by reference.

1, *Having examined the Responses to City Questions for 17633 Castellammare Drive prepared by MEC/Geotechnical Engineers, Inc. dated April 14, 2002 and April 15, 2002, which were submitted after your March 30, 2002 Report, is there any information in those responses that would cause you to change your conclusions in your Report and that the criteria for the Leeds foundation design is probably invalid?*

**Answer:** No. In fact, References [1] - [4] raise additional questions. Seepage forces calculated in Attachment 3 of Reference [1] are seriously in error. Furthermore, Reference [4] is unsatisfactory in two respects. First, it contains a basic error, and second,

August 8, 2002

2

PRA 13

EXHIBIT #

being limited to specific questions most recently raised by City personnel. it appears to presuppose that the responses contained References [1] - [3] have been found acceptable by the City which I find questionable. This latter matter is more or less demonstrated my answers to questions 2 through 5.

### Reference [1] Error

The seepage force problem is especially serious. The seepage force is a surface force present wherever there is ground water in motion. In slopes, it acts to reduce stability by pushing and dragging the soil skeleton downslope. Although the seepage force reduces slope stability in a manner quite independent of the effective stress mechanism, Reference [1] considers it only with respect to its effect on the proposed soldier-pile system. It does this by calculating the horizontal component of a seepage force acting in each of five partially saturated blocks of earth materials parallel to a basal landslide debris shear surface.

A comparison of seepage forces presumed to act in the five blocks specified in Reference [1], with those as normally calculated is given in the following table.

Block	MEC Net Seepage Force lbs/ft	$i$ ( $\tan \gamma$ )	$V$ (ft. <sup>3</sup> )	$F$ lbs/ft ( $F=62.4iV$ )
5	-1019	0.3443	624	13,406
6	1100	0.2754	566	9,727
7	-7251	0.2217	419	5,796
8	-3362	0.1584	209	2,066

In this table, the second column is the MEC-calculated net seepage force acting in each of the blocks obtained by subtracting a "Proj. Hyd-stat. Force,  $F_{hd}$ ", which is presumed to act downward parallel to the basal surface, from a "Proj. Hyd-stat. Force,  $F_H$ " which is presumed to act upward parallel to the basal surface and hence resist the driving force. The "lbs/ft" dimension refers to force acting along any foot of horizontal pile surface.

That the MEC values are incorrect is obvious from the fact that three of them are negative which arises from the fact that the resisting forces are calculated as greater than the opposing driving forces. Apparently, this error is due to the assumption that the system is static so that hydrostatic conditions prevail. In such a case, downslope in the block where the saturated zone is thicker, the hydrostatic force would be greater than upslope in the block where the saturated zone is thinner. This situation could arise only in a static closed section, and does not reflect conditions in the vicinity of Posetano Road.

The ground-water system in the vicinity of Posetano Road system is dynamic. In a saturated zone of landslide debris, the seepage force acts in the direction of ground-water movement, i.e., downward along the basal shear surface. If that were not true, the ground water would move upslope. Under some conditions, ground water can move upward, but that certainly is not the case for the Posetano Road landslide mass.

The correct calculation of the seepage force,  $F$ , is given in the fifth column of the table. It is the product of the hydraulic gradient,  $i$ , the volume,  $V$ , of the material through which seepage is occurring, and the unit weight of water, taken here as 62.4 pounds per cubic foot. In the table,  $i$  is the tangent of the MEC "water table angle,"  $\gamma$ , and  $V$  is a unit-wide

August 8, 2002

3

EXHIBIT # 2 <sup>OPRA 13</sup>

volume of saturated area,  $A_2$ , given by MEC for each of the blocks. It is obvious that the seepage forces and any horizontal components derived therefrom, are vastly greater than those utilized in the current soldier-pile design. In view of this, no other consideration is given here to other aspects of the MEC lateral load analysis or to slope stability in general. In both however, careful reexamination taking into account seepage is needed. 4

#### Reference [4] Error

The geologic map of Reference [4] shows a distribution of historic landslide debris, designated by the symbol "Qly," modified from that of McGill's 1989 map, which recognizes that the original Mountain Geology interpretation is incorrect and places the upper contact well into the property at 17627 Posetano Road. However, it does not recognize that the upper contact also enters the property in Lot 4 (see Fig. 2, Ref. [5] Fig. 2, Ref. [6]). In preparing Reference [4], MEC personnel apparently were not aware of Reference [7] that discusses the recent extension of the Posetano Road landslide into Lot 4. p3

2. *Is there any information in the said Responses that would change your conclusion that the grading necessary to install the foundations as shown in the Responses could only exacerbate the conditions you have described in your Report?*

Answer: No. For explanation, see the answer to question 4, below.

3. *In its Response dated April 15, 2002, MEC states in response to Question No. 4 that they have reviewed and responded to all the concerns raised by Mr. E. D. Michael. Is that statement correct and if not, in what respects has MEC failed to respond to any of your concerns?*

Answer: No. There has been no adequate response to the matter of dewatering (see Recommendation 2, p. 13, Ref. [6]). Section D-D' of Reference [3] shows two dewatering wells, although their proposed locations are not given in any of the reviewed references. In any event, it is doubtful that such an installation would effectively dewater the slope below the elevation of the MEC-postulated "potential water table." The apparent positions of the two wells, one directly downslope from the other, is highly inadvisable, because the upper well would interfere with the lower and therefore vitiate the latter's effectiveness. Furthermore, the cone of depression that a well normally produces might not extend any significant distance laterally from the wellhead. Consequently, it would have no effect on increasing the effective stress over more than a small area of the property.

The idea, employed here by MEC, of regarding a dewatering well as a shelf item, and locating it apparently using a dart board, is absurd. No thought should be given to the number, spacing, or depths of a dewatering well system until values for hydraulic conductivity and storage coefficient or specific yield have been determined or at least estimated based upon some sort of reasonable data.

4. *In its Response dated April 14, 2002, MEC states in response to Question No. 4 asking how the grading sequence will allow excavations in excess of five (5) feet that after installation of the piles, a five-foot excavation will be performed and a gunite retaining wall between the soldier piles on the vertical cut would be constructed and then only after the completion of this gunite wall will the next five foot excavation commence. Considering the maps in Attachment No. 1 thereto showing the distance between soldier piles and any other relevant information, will this method of excavation be adequate to support the slide mass above? Please give an explanation*

for your answer.

**Answer:** No. The proposal announced in A4 (p. 4, Ref. [4]) Ref. to install a "gunite retaining wall" in a 5-foot vertical cut upslope of installed soldier piles is highly questionable for the following reasons:

(a) Generally, gunite has almost no value as a retaining structure and none at all for a vertical cut. The first 5-foot cut would present no particular problem, but increasing its height in additional 5-foot increments would introduce a condition of potential instability that a gunite cover could not prevent.

(b) An assumed temporary stability of the cut appears to be based upon back-calculated strength parameters contained in Table 1 of Reference [4]. Those data necessarily assume a present safety factor of unity. Such an assumption is unwarranted in an active slide debris mass, the safety factor of which, by definition, is less than unity. A safety factor of unity assumes equal driving and resisting forces. In an active system there is no such equality, and consequently, the back-calculation cannot be applied. The problem has no solution.

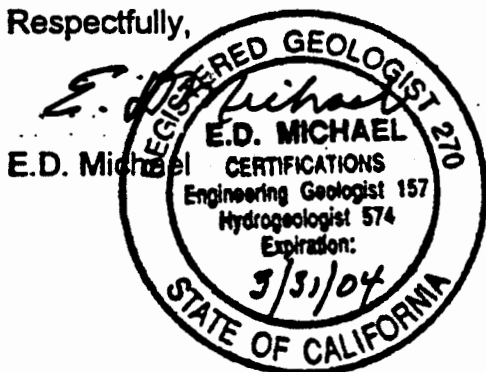
5. In your professional opinion, based on all the geologic and soil reports and references that you have reviewed concerning this project, will this project as approved by the City of Los Angeles minimize risks to life and property in an area of high geological hazard?

**Answer:** No, for the reasons discussed herein.

6. In your professional opinion, based on all the geologic and soil reports and references that you have reviewed concerning this project, will this project as approved by the City of Los Angeles assure stability and structural integrity, and neither create or contribute significantly to erosion, geologic stability, or destruction of the site or surrounding area?

**Answer:** No. The project will not contribute to erosion. However, there is a serious risk that as proposed, it will result in increased geologic instability and possibly an episode of catastrophic movement of the Posetano Road landslide mass with a consequent loss of structural integrity, such as it is, of the Posetano roadbed and the slope above it, as well as the likelihood of serious damage or even destruction of existing improvements in adjacent properties.

Respectfully,



COASTAL COMMISSION  
A-5-PPL-02-276

EXHIBIT # 2 13  
PAGE 4 OF 4

5-02-334

**MEC** MEC/Geotechnical Engineers, Inc.

February 13, 2001

Mr. Ben Leeds  
LEEDS PROPERTY MANAGEMENT  
2130 South Sepulveda Boulevard  
Los Angeles, CA 90025

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SEP 25 2002

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CALIFORNIA COASTAL COMMISSION  
South Coast Region

FEB 14 2001

Subject: Response to Coastal Commission Letter Dated 2/6/01  
17633 Castellammare Drive, Pacific Palisades  
MEC File Number: 9LEE117

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Reference Report/Letter	Report/ Log No.	Document Date	Prepared by
Preliminary Geology	JH2703	05-30-91	Mountain Geology, Inc.
Additional Geology	JH2703b	09-09-91	Mountain Geology, Inc.
Preliminary Soils	2539-91	09-20-91	West Coast Geotechnical
Building & Safety Review	26196	11-26-91	City of Los Angeles
Addendum No. 1	JH2703c	01-06-92	Mountain Geology, Inc.
Addendum No. 1	2539-91	02-14-92	West Coast Geotechnical
Building & Safety Review	27734	03-24-92	City of Los Angeles
Addendum No. 2	JH2703e	04-06-92	Mountain Geology, Inc.
Addendum No. 2	2539-91	05-01-92	West Coast Geotechnical
Building & Safety Review	28732	06-19-92	City of Los Angeles
Addendum No. 4	JH2703f	11-03-92	Mountain Geology, Inc.
Building & Safety Review	31171	12-28-92	City of Los Angeles
Addendum No. 5	JH2703i	06-28-94	Mountain Geology, Inc.
Addendum No. 3	2539-91	08-17-94	West Coast Geotechnical
Building & Safety Review	36918	09-28-94	City of Los Angeles
Addendum No. 6	JH2703j	12-13-94	Mountain Geology, Inc.
Additional Comment	JH2703k	12-29-94	Mountain Geology, Inc.

**COASTAL COMMISSION**

References Continued

EXHIBIT # 14  
PAGE 1 OF 3

Reference Report/Letter	Report/ Log No.	Document Date	Prepared by
Addendum No. 4	2539	01-04-95	West Coast Geotechnical
Building & Safety Review	38314	02-09-95	City of Los Angeles
Addendum No. 5	2539	05-08-95	West Coast Geotechnical
Geology	JH2703	10-12-95	Mountain Geology, Inc.
Geology	JH2703	02-09-96	Mountain Geology, Inc.
Geology	JH2703	04-03-96	Mountain Geology, Inc.
Soils	2539	08-19-96	West Coast Geotechnical
Geology	JH2703r	10-30-96	Mountain Geology, Inc.
Addendum No. 7	2539	04-26-99	West Coast Geotechnical
Building & Safety Review	27841	06-22-99	City of Los Angeles
Addendum No. 8	2539	07-26-99	West Coast Geotechnical
Supplement	2539	08-30-99	West Coast Geotechnical
Building & Safety Approval	27841-01	09-10-99	City of Los Angeles
Responsibility Letter	9LEE117	09-23-99	MEC/Geotechnical Eng.
Building & Safety Approval	29253	11-05-99	City of Los Angeles

Dear Mr. Leeds:

MEC has prepared this letter in response to the questions raised by California Coastal Commission in their letter dated 2/6/01. A copy of this letter is presented in Attachment No. 1. The questions and the associated responses are as follows:

- Q1<sub>a</sub> - Do you anticipate that the dewatering wells will alleviate the issue of groundwater impact to your project?
- A1<sub>a</sub> - The sole purpose of the dewatering wells is to lower the water table at the subject property and enhance the general stability of the site. Thus, the answer to the question is yes.

Q1<sub>b</sub> - Please submit the location of the dewatering wells on your site map.

A1<sub>b</sub> - The following is presented in Attachment No. 2:

Site Map	Showing dewatering wells	Large Size
Site Map	Showing dewatering wells	8.5"x11"
Cross-Section	Showing dewatering wells	Large Size
Cross-Section	Showing dewatering wells	8.5"x11"


Q2 - Provide reduced site plans, pile system, drainage plan, grading plan, and elevation.

A2 - The requested plans are prepared by the office of Umberto Capiro Design and are presented in Attachment No. 3.

We appreciate the opportunity to be of service to you. If you have any questions, please call our office.

Sincerely,

MEC/GEOTECHNICAL ENGINEERS, INC.

  
Sassan A. Salehipour, P.E.  
President

SAS:ad/9lee117b.doc  
Attachments

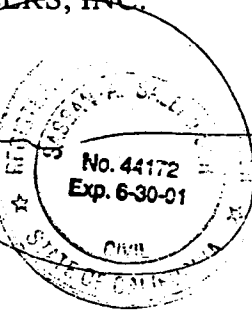


Exhibit 14 p3



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South Coast Region  
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COASTAL COMMISSION

MR. BEN LEEDS  
LEEDS PROPERTY MANAGEMENT  
2130 SOUTH SEPULVEDA BOULEVARD  
LOS ANGELES, CALIFORNIA 90025

RESPONSE  
TO  
CITY QUESTIONS

FOR

17633 CASTELLAMMARE DRIVE  
PACIFIC PALISADES

Prepared By

MEC/Geotechnical Engineers, Inc.  
1290 North Lake Avenue, Suite 204  
Pasadena, California 91104-2869

**COASTAL COMMISSION**

EXHIBIT # 15

PAGE 1 OF 6

April 14, 2002

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**MEC** MEC/Geotechnical Engineers, Inc.

April 14, 2002

Mr. Ben Leeds  
LEEDS PROPERTY MANAGEMENT  
2130 South Sepulveda Boulevard  
Los Angeles, CA 90025

Subject: Response to Questions Raised by the Department  
17633 Castellammare Drive, Pacific Palisades  
MEC File Number: 9LEE117

Reference Report/Letter	Report/ Log No.	Document Date	Prepared by
Preliminary Geology	JH2703	05-30-91	Mountain Geology, Inc.
Additional Geology	JH2703b	09-09-91	Mountain Geology, Inc.
Preliminary Soils	2539-91	09-20-91	West Coast Geotechnical
Building & Safety Review	26196	11-26-91	City of Los Angeles
Addendum No. 1	JH2703c	01-06-92	Mountain Geology, Inc.
Addendum No. 1	2539-91	02-14-92	West Coast Geotechnical
Building & Safety Review	27734	03-24-92	City of Los Angeles
Addendum No. 2	JH2703e	04-06-92	Mountain Geology, Inc.
Addendum No. 2	2539-91	05-01-92	West Coast Geotechnical
Building & Safety Review	28732	06-19-92	City of Los Angeles
Addendum No. 4	JH2703f	11-03-92	Mountain Geology, Inc.
Building & Safety Review	31171	12-28-92	City of Los Angeles

References Continue

Exhibit 15  
p 2

Reference Report/Letter	Report/ Log No.	Document Date	Prepared by
Addendum No. 5	JH2703i	06-28-94	Mountain Geology, Inc.
Addendum No. 3	2539-91	08-17-94	West Coast Geotechnical
Building & Safety Review	36918	09-28-94	City of Los Angeles
Addendum No. 6	JH2703j	12-13-94	Mountain Geology, Inc.
Additional Comment	JH2703k	12-29-94	Mountain Geology, Inc.
Addendum No. 4	2539	01-04-95	West Coast Geotechnical
Building & Safety Review	38314	02-09-95	City of Los Angeles
Addendum No. 5	2539	05-08-95	West Coast Geotechnical
Geology	JH2703	10-12-95	Mountain Geology, Inc.
Geology	JH2703	02-09-96	Mountain Geology, Inc.
Geology	JH2703	04-03-96	Mountain Geology, Inc.
Soils	2539	08-19-96	West Coast Geotechnical
Geology	JH2703r	10-30-96	Mountain Geology, Inc.
Addendum No. 7	2539	04-26-99	West Coast Geotechnical
Building & Safety Review	27841	06-22-99	City of Los Angeles
Addendum No. 8	2539	07-26-99	West Coast Geotechnical
Supplement	2539	08-30-99	West Coast Geotechnical
Building & Safety Approval	27841-01	09-10-99	City of Los Angeles
Responsibility Letter	9LEE117	09-23-99	MEC/Geotechnical Eng.
Building & Safety Approval	29253	11-05-99	City of Los Angeles
Intent to Rescind		08-13-01	City of Los Angeles
Response Letter	9LEE117	09-20-01	MEC/Geotechnical Eng.
Review Letter	34764	10-03-01	City of Los Angeles

References Continue

Exhibit 15 p3

Reference Report/Letter	Report/ Log No.	Document Date	Prepared by
Response Letter to 10/04/01	9LEE117	10-04-01	MEC/Geotechnical Eng.
Review Letter	34764	10-03-01	City of Los Angeles
Response to Qstns 10/03/01	9LEE117	10-08-01	MEC/Geotechnical Eng.
Response to Qstns 10/04/01	9LEE117	10-11-01	MEC/Geotechnical Eng.
Response to Qstns 10/15/01	9LEE117	10-17-01	MEC/Geotechnical Eng.
Review Letter	34764-01	10-30-01	City of Los Angeles
Response to Qstns 10/30/01	9LEE117	11-08-01	MEC/Geotechnical Eng.
Critique of Soils & Geo		12-27-01	E.D. Michael, Cnsltnng Geo
Review Letter		01-10-02	City of Los Angeles
Response to Qstns 01/10/02	9LEE117	02-01-02	MEC/Geotechnical Eng.
Review Letter		02-14-02	City of Los Angeles
Response to Qstns 02/14/02	9LEE117	03-18-02	MEC/Geotechnical Eng.
Response to Qstns 03/18/02	9LEE117	03-19-02	MEC/Geotechnical Eng.

Dear Mr. Leeds:

MEC has prepared this report to document the latest set of items that are requested by the city engineer during our 4/12/02 meeting with the Department. The questions are responded to in the order raised:

Q1 - *Provide a geologic map showing the location of the proposed soldier piles, de-watering wells, and inclinometers.*

A1-- A geologic map showing the location of the proposed soldier piles, de-watering wells, and inclinometers is presented in Attachment No. 1.

Q2 - *Provide a geologic cross-section showing the location of the proposed soldier piles, de-watering wells, and inclinometers.*

*Exhibit 15 e<sup>4</sup>*

- A2 - A geologic cross-section showing the location of the proposed soldier piles, dewatering wells, and inclinometers is presented in Attachment No. 2.
- Q3 - *On the geologic map show that the clearance between the soldier piles are less than 14.5 feet.*
- A3 - On the geologic map the clearance between the soldier piles are shown to be less than 14.5 feet.
- Q4 - *How would the grading consequence allow excavations in excess of five (5) feet?*
- A4 - After installation of the piles, a five-foot-excavation will be performed. A gunite retaining wall between the soldier piles on the vertical cut would be constructed. Only after completion of this gunite wall the next 5'-excavation would commence.
- Q5 - *What would be the scheduled inclinometer reading?*
- A5 - The inclinometer readings will occur based the following time schedule:

1 <sup>st</sup> Reading	Day of the installation
2 <sup>nd</sup> Reading	One month after the date of installation
3 <sup>rd</sup> Reading	Two months after the date of installation
4 <sup>th</sup> Reading	Four months after the date of installation
5 <sup>th</sup> Reading	Six months after the date of installation
6 <sup>th</sup> Reading	Nine months after the date of installation
7 <sup>th</sup> Reading	Twelve months after the date of installation
8 <sup>th</sup> Reading	Eighteen months after the date of installation
9 <sup>th</sup> Reading	Twenty-four months after the date of installation

Exhibit 15 e5

We appreciate the opportunity to be of service to you. If you have any questions, please call our office.

Sincerely,

MEC/GEOTECHNICAL ENGINEERS, INC.

Sassan A. Salehipour, P.E.  
President



SAS:RAE:ak/9lee117k12.doc  
Attachments



5-02-334  
A 5.02 276  
Exhibit 15  
p6

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South Coast Region

AUG 23 2002

CALIFORNIA  
COASTAL COMMISSION

MR. BEN LEEDS  
LEEDS PROPERTY MANAGEMENT  
2130 SOUTH SEPULVEDA BOULEVARD  
LOS ANGELES, CALIFORNIA 90025

RESPONSE  
TO  
CITY QUESTIONS

FOR

17633 CASTELLAMMARE DRIVE  
PACIFIC PALISADES

Prepared By

MEC/Geotechnical Engineers, Inc.  
1290 North Lake Avenue, Suite 204  
Pasadena, California 91104-2869

April 15, 2002

**COASTAL COMMISSION**

EXHIBIT # 16  
PAGE 1 OF 36



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**MEC** MEC/Geotechnical Engineers, Inc.

April 15, 2002

**COASTAL COMMISSION**

Mr. Ben Leeds  
LEEDS PROPERTY MANAGEMENT  
2130 South Sepulveda Boulevard  
Los Angeles, CA 90025

EXHIBIT # \_\_\_\_\_  
PAGE \_\_\_\_\_ OF \_\_\_\_\_

Subject: Response to Questions Raised by the Department  
17633 Castellammare Drive, Pacific Palisades  
MEC File Number: 9LEE117

Reference Report/Letter	Report/ Log No.	Document Date	Prepared by
Preliminary Geology	JH2703	05-30-91	Mountain Geology, Inc.
Additional Geology	JH2703b	09-09-91	Mountain Geology, Inc.
Preliminary Soils	2539-91	09-20-91	West Coast Geotechnical
Building & Safety Review	26196	11-26-91	City of Los Angeles
Addendum No. 1	JH2703c	01-06-92	Mountain Geology, Inc.
Addendum No. 1	2539-91	02-14-92	West Coast Geotechnical
Building & Safety Review	27734	03-24-92	City of Los Angeles
Addendum No. 2	JH2703e	04-06-92	Mountain Geology, Inc.
Addendum No. 2	2539-91	05-01-92	West Coast Geotechnical
Building & Safety Review	28732	06-19-92	City of Los Angeles
Addendum No. 4	JH2703f	11-03-92	Mountain Geology, Inc.
Building & Safety Review	31171	12-28-92	City of Los Angeles

References Continue

Exhibit 16  
p2

Reference Report/Letter	Report/ Log No.	Document Date	Prepared by
Addendum No. 5	JH2703i	06-28-94	Mountain Geology, Inc.
Addendum No. 3	2539-91	08-17-94	West Coast Geotechnical
Building & Safety Review	36918	09-28-94	City of Los Angeles
Addendum No. 6	JH2703j	12-13-94	Mountain Geology, Inc.
Additional Comment	JH2703k	12-29-94	Mountain Geology, Inc.
Addendum No. 4	2539	01-04-95	West Coast Geotechnical
Building & Safety Review	38314	02-09-95	City of Los Angeles
Addendum No. 5	2539	05-08-95	West Coast Geotechnical
Geology	JH2703	10-12-95	Mountain Geology, Inc.
Geology	JH2703	02-09-96	Mountain Geology, Inc.
Geology	JH2703	04-03-96	Mountain Geology, Inc.
Soils	2539	08-19-96	West Coast Geotechnical
Geology	JH2703r	10-30-96	Mountain Geology, Inc.
Addendum No. 7	2539	04-26-99	West Coast Geotechnical
Building & Safety Review	27841	06-22-99	City of Los Angeles
Addendum No. 8	2539	07-26-99	West Coast Geotechnical
Supplement	2539	08-30-99	West Coast Geotechnical
Building & Safety Approval	27841-01	09-10-99	City of Los Angeles
Responsibility Letter	9LEE117	09-23-99	MEC/Geotechnical Eng.
Building & Safety Approval	29253	11-05-99	City of Los Angeles
Intent to Rescind		08-13-01	City of Los Angeles
Response Letter	9LEE117	09-20-01	MEC/Geotechnical Eng.

References Continue

Exhibit 16  
P3

Reference Report/Letter	Report/ Log No.	Document Date	Prepared by
Review Letter	34764	10-03-01	City of Los Angeles
Response Letter to 10/04/01	9LEE117	10-04-01	MEC/Geotechnical Eng.
Review Letter	34764	10-03-01	City of Los Angeles
Response to Qstns 10/03/01	9LEE117	10-08-01	MEC/Geotechnical Eng.
Response to Qstns 10/04/01	9LEE117	10-11-01	MEC/Geotechnical Eng.
Response to Qstns 10/15/01	9LEE117	10-17-01	MEC/Geotechnical Eng.
Review Letter	34764-01	10-30-01	City of Los Angeles
Response to Qstns 10/30/01	9LEE117	11-08-01	MEC/Geotechnical Eng.
Critique of Soils & Geo		12-27-01	L.D. Michael, Cnsltng Geo
Review Letter		01-10-02	City of Los Angeles
Response to Qstns 01/10/02	9LEE117	02-01-02	MEC/Geotechnical Eng.
Review Letter		02-14-02	City of Los Angeles
Response to Qstns 02/14/02	9LEE117	03-18-02	MEC/Geotechnical Eng.
Response to Qstns 03/18/02	9LEE117	03-19-02	MEC/Geotechnical Eng.
Response to Qstns 04/14/02	9LEE117	04-14-02	MEC/Geotechnical Eng.

Dear Mr. Leeds:

MEC has prepared this report to document the latest set of items that are requested by the city engineer during our 4/17/02 telephone conversation with the Department. The questions are responded to in the order raised:

Q1 - *Revise the time scheduled for the inclinometer reading and show the report preparation for each reading.*

A1 - The inclinometer readings will occur based the following time schedule:

*Exhibit 16  
p 4*

1 <sup>st</sup> Reading	Day of the installation
2 <sup>nd</sup> Reading	One month after the date of installation
3 <sup>rd</sup> Reading	Two months after the date of installation
4 <sup>th</sup> Reading	Three months after the date of installation
5 <sup>th</sup> Reading	Five months after the date of installation
6 <sup>th</sup> Reading	Seven months after the date of installation
7 <sup>th</sup> Reading	Nine months after the date of installation
8 <sup>th</sup> Reading	Twelve months after the date of installation
9 <sup>th</sup> Reading	Fifteen months after the date of installation
10 <sup>th</sup> Reading	Eighteen months after the date of installation
11 <sup>th</sup> Reading	Twenty four months after the date of installation

In addition, a written report must be submitted to the Department within seven (7) days after the date of each reading.

Q2 - *Show the active and passive pressures on a diagram.*

A2 - Active and passive pressures on the soldier piles are shown in a diagrammatic form. A copy is presented in Attachment No. 1.

Q3 - *Show the footprint of the proposed house on a geologic plot plan and include the inclinometer, soldier piles, de-watering wells, and the borehole locations on the same plan.*

A3 - The footprint of the proposed house including the inclinometer, soldier piles, de-watering wells, and the borehole locations are shown on the geologic plot plan. A copy of this plan is presented in Attachment No. 2.

Q4 - *Have you reviewed and responded to Mr. E. D. Michaels report dated 3/30/02?*

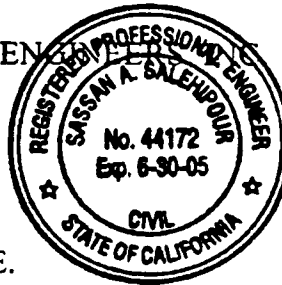
A4 - Please be advised that we have reviewed and responded in our previous reports to all the concerns raised by Mr. E. D. Michael.

*Exhibit 16*  
*CS*

We appreciate the opportunity to be of service to you. If you have any questions, please call our office.

Sincerely,

MEC/GEOTECHNICAL ENGINEERS, INC.



Sassan A. Salehipour, P.E.  
President

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Attachments

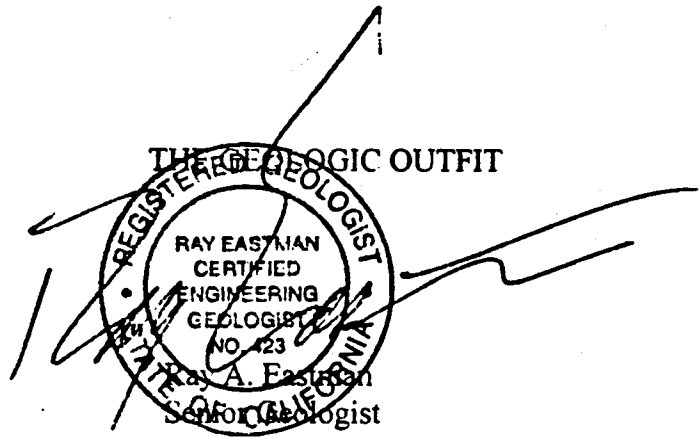


Exhibit 16  
p 6

A Guide  
to  
**Estimating Irrigation Water Needs  
of  
Landscape Plantings  
in  
California**

The Landscape Coefficient Method  
and  
WUCOLS III\*

\*WUCOLS is the acronym for Water Use Classifications of Landscape Species.

University of California Cooperative Extension  
California Department of Water Resources

August 2000

**COASTAL COMMISSION**

EXHIBIT # 17  
PAGE 1 OF 1

# APPENDIX A. NON-NATIVE INVASIVE PLANTS IN THE SANTA MONICA MOUNTAINS

SCIENTIFIC NAME	COMMON NAME
<i>Acacia cyclops</i>	Acacia
<i>Acacia longifolia</i>	Sidney Golden Wattle
<i>Acacia melanoxylon</i>	Blackwood Acacia
<i>Ailanthus altissima</i>	Tree of Heaven
<i>Aptenia cordifolia</i>	Red Apple
<i>Arundo donax</i>	Giant Reed or Arundo Grass
<i>Avena fatua</i>	Wild Oats
<i>Avena barbata</i>	Slender Oat
<i>Brassica nigra</i>	Black Mustard
<i>Brassica rapa</i>	Field Mustard
<i>Bromus diandrus</i>	Rippgut Grass
<i>Bromus mollis</i>	Brome Grass, Soft Chess
<i>Bromus rubens</i>	Fortall Chess
<i>Carduus pycnocephalus</i>	Italian Thistle
<i>Carpobrotus edulis</i>	Hottentot Fig
<i>Centaurea melitensis</i>	Yellow Star-Thisle, Tecolote
<i>Centaurea solstitialis</i>	Barnaby's Thistle
<i>Chenopodium album</i>	Pigweed, Lamb's Quarters
<i>Chenopodium murale</i>	Goosefoot
<i>Chrysanthemum coronarium</i>	Annual chrysanthemum
<i>Cirsium vulgare</i>	Bull Thistle
<i>Conium maculatum</i>	Poison Hemlock
<i>Cortaderia stacensis</i>	Pampas Grass
<i>Cynara cardunculus</i>	Artichoke Thistle or Cardoon
<i>Cynodon dactylon</i>	Bermuda Grass
<i>Descurainia sophia</i>	Flurweed
<i>Erodium cicutarium</i>	Filaree
<i>Eupatorium (Ageratina) adenophorum</i>	Eupatory
<i>Eucalyptus globulus</i>	Eucalyptus
<i>Foeniculum vulgare</i>	Fennel
<i>Hirschfeldia incana</i>	Perennial Mustard
<i>Hordeum laetivum</i>	Fortall Barley, Mouse Barley
<i>Lactuca scariola</i>	Prickly Lettuce
<i>Lobularia maritima</i>	Sweet Alysum
<i>Malva parviflora</i>	Cheeseweed
<i>Marrubium vulgare</i>	Horehound
<i>Mesembryanthemum crystallinum</i>	Common Ice Plant
<i>Myoporum laetum</i>	Myoporum
<i>Nicotiana glauca</i>	Tree Tobacco
<i>Oryzopsis miliacea</i>	Smilo Grass
<i>Oxalis pes-caprae</i>	Bermuda Buttercup
<i>Pennisetum clandestinum</i>	Kikuyu Grass
<i>Pennisetum setaceum</i>	Fountain Grass
<i>Phalaris aquatica</i>	Harding Grass
<i>Picris echioides</i>	Bristly Ox-tongue
<i>Raphanus sativus</i>	Wild Radish
<i>Ricinus communis</i>	Castor Bean
<i>Rumex conglomeratus</i>	Creek Dock
<i>Rumex crispus</i>	Curly Dock
<i>Salsola australis</i>	Russian Thistle
<i>Schinus molle</i>	California Pepper Tree
<i>Schinus terebinthifolius</i>	Florida Pepper Tree
<i>Senecio jacobinoides</i>	German Ivy
<i>Sisymbrium marianum</i>	Milk Thistle
<i>Sisymbrium irio</i>	London Rocket
<i>Sisymbrium officinale</i>	Hedge Mustard
<i>Sisymbrium orientale</i>	Eastern Rocket
<i>Sonchus oleraceus</i>	Sow Thistle
<i>Sorghum halepense</i>	Johnson Grass
<i>Spartium junceum</i>	Spanish Broom
<i>Taraxacum officinale</i>	Dandelion
<i>Tribulus terrestris</i>	Puncture Vine
<i>Tropeaeolum majus</i>	Nasturtium
<i>Vinca major</i>	Periwinkle
<i>Xanthum spinosus</i>	Cocklebur

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5.02.834 / A.5.02.276  
EXHIBIT # 18  
PAGE 1 OF 1

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## OCEAN TRAILS PROHIBITED INVASIVE ORNAMENTAL PLANTS

The species listed below are prohibited from use in landscaping on residential lots, parks, at the golf course clubhouse, and within the golf course proper. In addition to this list, all commercially available seed mixes are prohibited from use at Ocean Trails (variously called "grass mix", "turf mix", "wildflower mix", "meadow seed mix", and "pasture seed mix" mixes). Whenever a prohibited species is detected, the responsible party will be required to immediately remove the plant(s) and take appropriate measures to ensure non-recurrence of the plant species.

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>
<i>Acacia</i> sp. (all species)	Acacia
<i>Acacia cyclops</i>	Acacia
<i>Acacia dealbata</i>	Acacia
<i>Acacia decurrens</i>	Green Wattle
<i>Acacia longifolia</i>	Sidney Golden Wattle
<i>Acacia melanoxylon</i>	Blackwood Acacia
<i>Acacia redolens</i>	a.k.a. A. <i>Ongerup</i>
<i>Achillea millefolium</i> var. <i>millefolium</i>	Common Yarrow
<i>Agave americana</i>	Century plant
<i>Ailanthus altissima</i>	Tree of Heaven
<i>Aptenia cordifolia</i>	Red Apple
<i>Arctotheca calendula</i>	Cape Weed
<i>Arctotis</i> sp. (all species & hybrids)	African daisy
<i>Arundo donax</i>	Giant Reed or Arundo Grass
<i>Asphodelus fistulosus</i>	Asphodel
<i>Atriplex glauca</i>	White Saltbush
<i>Atriplex semibaccata</i>	Australian Saltbush
<i>Carpobrotus chilensis</i>	Ice Plant
<i>Carpobrotus edulis</i>	Hottentot Fig
<i>Centranthus ruber</i>	Red Valerian
<i>Chenopodium album</i>	Pigweed, Lamb's Quarters
<i>Chrysanthemum coronarium</i>	Annual chrysanthemum
<i>Cistus</i> sp. (all species)	Rockrose
<i>Cortaderia jubata</i> [C. <i>Atacamensis</i> ]	Atacama Pampas Grass
<i>Cortaderia dioica</i> [C. <i>sellowiana</i> ]	Selloa Pampas Grass
<i>Cotoneaster</i> sp. (all species)	Cotoneaster
<i>Cynodon dactylon</i>	Bermuda Grass
<i>Cytisus</i> sp. (all species)	Broom
<i>Delosperma 'Alba'</i>	White Trailing Ice Plant
<i>Dimorphotheca</i> sp. (all species)	African daisy, Cape marigold,
<i>Diosanthemum floribundum</i>	Freeway daisy
<i>Diosanthemum hispidum</i>	Rosea Ice Plant
<i>Eucalyptus</i> (all species)	Purple Ice Plant
<i>Eupatorium coelestinum</i> [Ageratina sp.]	Eucalyptus
<i>Foeniculum vulgare</i>	Mist Flower
<i>Gazania</i> sp. (all species & hybrids)	Sweet Fennel
<i>Genista</i> sp. (all species)	Gazania
<i>Hedera canariensis</i>	Broom
<i>Hedera helix</i>	Algerian Ivy
	English Ivy

AS.02.276

S.02.334

South C.

COASTAL COMMISSION

MAR 2 2000

 EXHIBIT # 19  
 PAGE 1 OF 3

Ocean Trails Lists of Prohibited Ornamental Plants & Non-Native Weeds to be Eradicated, Cont.

Pg. 2

<i>Ipomoea acuminata</i>	Blue dawn flower,
<i>Lampranthus spectabilis</i>	Mexican morning glory
<i>Lantana camara</i>	Trailing Ice Plant
<i>Limonium perezii</i>	Common garden lantana
<i>Linaria bipartita</i>	Sea Lavender
<i>Lobularia maritima</i>	Toadflax
<i>Lonicera japonica</i> 'Halliana'	Sweet Alyssum
<i>Lotus corniculatus</i>	Hall's Honeysuckle
<i>Lupinus</i> sp. (all non-native species)	Birdsfoot trefoil
<i>Lupinus arboreus</i>	Lupine
<i>Lupinus texanus</i>	Yellow bush lupine
<i>Malephora crocea</i>	Texas blue bonnets
<i>Malephora luteola</i>	Ice Plant
<i>Mesembryanthemum crystallinum</i>	Ice Plant
<i>Mesembryanthemum nodiflorum</i>	Crystal Ice Plant
<i>Myoporum laetum</i>	Little Ice Plant
<i>Nicotiana glauca</i>	Myoporum
<i>Oenothera berlandieri</i>	Tree Tobacco
<i>Olea europea</i>	Mexican Evening Primrose
<i>Opuntia ficus-indica</i>	Olive tree
<i>Osteospermum</i> sp. (all species)	Indian fig
<i>Oxalis pes-caprae</i>	Trailing African daisy, African daisy,
<i>Pennisetum clandestinum</i>	Cape marigold, Freeway daisy
<i>Pennisetum setaceum</i>	Bermuda Buttercup
<i>Phoenix canariensis</i>	Kikuyu Grass
<i>Phoenix dactylifera</i>	Fountain Grass
<i>Plumbago auriculata</i>	Canary Island date palm
<i>Ricinus communis</i>	Date palm
<i>Rubus procerus</i>	Cape leadwort
<i>Schinus molle</i>	Castorbean
<i>Schinus terebinthifolius</i>	Himalayan blackberry
<i>Senecio mikanioides</i>	California Pepper Tree
<i>Spartium junceum</i>	Florida Pepper Tree
<i>Tamarix chinensis</i>	German Ivy
<i>Trifolium fragiferum</i>	Spanish Broom
<i>Tropaeolum majus</i>	Tamarisk
<i>Ulex europaeus</i>	Strawberry clover
<i>Vinca major</i>	Nasturtium
	Prickley Broom
	Periwinkle

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5-02-3434 AS-02 276

EXHIBIT #

19

PAGE

2

OF

3

## OCEAN TRAILS WEED PLANTS TO BE ERADICATED

The plant species listed below are considered to be weeds. Other weeds may be identified and subsequently added to this list. These plants should be controlled and/or removed and eradicated to the greatest extent feasible whenever one or more species are detected on a private residential lot, park, fire buffer, golf course, and within lots designated as open space.

SCIENTIFIC NAMECOMMON NAME

<i>Avena fatua</i>	Wild oats
<i>Avena barbata</i>	Slender oats
<i>Brassica nigra</i>	black mustard
<i>Brassica rapa</i>	field mustard
<i>Bromus diandrus</i>	ripgut grass
<i>Bromus hordeaceus</i> [B. mollis]	brome grass, soft chess
<i>Bromus rubens</i>	foxtail chess
<i>Carduus pycnocephalus</i>	Italian thistle
<i>Centaurea melitensis</i>	yellow star thistle
<i>Centaurea solstitialis</i>	Barnaby's thistle
<i>Chenopodium album</i>	pigweed, lamb's quarters
<i>Chenopodium murale</i>	goosefoot
<i>Cirsium vulgare</i>	bull thistle
<i>Conium maculatum</i>	poison hemlock
<i>Cynara cardunculus</i>	artichoke thistle
<i>Descurainia sophia</i>	fibweed
<i>Ehrharta calycina</i>	velvet grass
<i>Erodium cicutarium</i>	fieree
<i>Hirschfeldia incana</i>	perennial mustard
<i>Hordeum leporinum</i>	foxtail barley
<i>Lactuca serriola</i>	prickly lettuce
<i>Malva parviflora</i>	cheeseweed
<i>Marrubium vulgare</i>	horshound
<i>Piptatherum</i> [Oryzopsis] <i>miliacea</i>	rice grass, smilo grass
<i>Phalaris aquatica</i>	harding grass
<i>Picris echinoides</i>	bristly ox-tongue
<i>Raphanus sativus</i>	wild radish
<i>Rumex conglomeratus</i>	creek dock
<i>Rumex crispus</i>	curly dock
<i>Salsola tragus</i> [S. australis]	Russian thistle
<i>Silybum marianum</i>	milk thistle
<i>Sisymbrium irio</i>	London rocket
<i>Sisymbrium officinale</i>	hedge mustard
<i>Sisymbrium orientale</i>	Eastern rocket
<i>Sonchus asper</i>	prickly sow thistle
<i>Sonchus oleraceus</i>	sow thistle
<i>Sorghum halepense</i>	Johnson grass
<i>Taraxacum officinale</i>	dandelion
<i>Tribulus terrestris</i>	puncture vine
<i>Xanthium spinosum</i>	cocklebur

COASTAL COMMISSION

502-331-19502-276

EXHIBIT #

19

PAGE

3 OF 3

South Coast Region

MAR 20 2003

TYPE P.04

CALIFORNIA

**Law Offices of Jack Allen**

15015 Bestor Boulevard,  
Pacific Palisades, California 90272

(310) 454-2062  
Fax (310) 454-8037  
E-Mail [jackjack@linkline.com](mailto:jackjack@linkline.com)

May 8, 2003

California Coastal Commission,  
South Coast Area Office,  
200 Oceangate, Suite 1000,  
Long Beach, California 90802-4302

Re: Appeal from Coastal Permit Decision of Local  
Government, West Los Angeles Planning Commission  
**A-5-PPL-02-276**  
Applicant: Ben Leeds,  
Location: 17633 Castellammare Drive, Pacific Palisades

Honorable Commission Members:

The information contained herein and the attached Geology Report are in response to a supplemental report submitted by the applicant's geologists on December 4, 2002 replying to questions posed by Mark Johnson, the Commission Staff Geologist regarding the issues raised in the appeal.

The Appellants did not learn that the applicant had submitted a reply until March, 2003 at which time the appellants obtained a copy. Appellants were also advised that Mr. Johnson had recommended approval of the application, however, there was no copy of Mr. Johnson's correspondence in the file at the time the appellants examined the file and therefore, appellants do not have a copy of his correspondence.

Having examined the applicant's December 4 supplemental report, State Certified Hydro Geologist E. D. Michael prepared a response to the supplemental report which is enclosed. In Mr. Michael's Report he analyses the responses of the applicant's geologists to the questions posed by Mr. Johnson and concludes as follows:

"The reports by MEC cannot be relied upon as a description of slope stability conditions in the Leeds property for two reasons. First, the calculations of "Applied Lateral Loads" presented in Attachment 2 of the subject report remain questionable. As explained in Appendix A, the entire mechanism by which MEC has analyzed the driving and resisting forces subject and previous reports appears to be erroneous.

Second, the proposed development of the Leeds property does not consider the fact that the mass of debris underlying the site, as well as a large area adjacent to the west below the properties at 17700 and 17712 Revello Drive, is underlain by an active landslide.

#5 PPL 02 276  
5-02 834  
Exhibit 20 p1

*The currently proposed pile cage appears to be essentially a foundation system. It is not intended as a method of slide stabilization, but rather one to stabilize proposed vertical cuts in the Leeds property. Whether the part of the active mass in the Leeds property can be stabilized independently from the rest of the mass cannot be determined at this time. Stabilization probably will require either a system of closely spaced soldier piles or possibly a very extensive system of rock bolts. In any event, a detailed geotechnical engineering study is necessary to determine appropriate remedial measures that are certain to be very costly." (Emphasis added.)*

The emphasized language frames the real issue in the application, **slide stabilization**, an issue that both the applicant's geologist and Mr. Johnson ignore. **Slide stabilization** is the key to the Findings required by Section 30253 of the Coastal Act and conformance with Section 30253 is imperative. The essence of that Section is that the development shall minimize risks to life and property in an area of high geologic hazard and that *the development shall assure integrity, and neither create nor contribute significantly to geologic instability or destruction of the site or surrounding area.* (Emphasis added.)

If the active slide is not stabilized the development will contribute significantly to geologic instability in both the site and the surrounding area.

#### **The Active Slide Mass Has Expanded Significantly.**

In his Report of March 30, 2002, Mr. Michael found strong evidence that the active slide which includes Mr. Leed's property had expanded significantly causing cracking in homes located 17626 Posetano Road and 17700 Revello Road above Mr. Leed's property. A year later more evidence of the expansion of the active slide has been found as shown in Mr. Michael's Report of May 18, 2003. The home at 177712 Revello Road adjacent to the home at 17700 Revello Road is showing significant new cracking.

However, the expansion of the slide has not been confined to just the north, east, and west. The slide is definately expanding to the south of the Leed's property. A significant new crack was found in the retaining wall above Porto Marino Drive in December 2002 and that crack has since bulged out. (Michael Report, page 11, Photo 6). Michael believes this crack indicates the eastern boundary of the slide.

In addition, Michael also found evidence of shearing on Porto Marino Drive (Photo No. 5, page 11).

The approximate boundaries of the active slide area are shown on the map on page 3 of the Michael Report. When compared to the map on Page 6 of Michael's March 30, 2002 Report, that slide has expanded significantly and now poses not only a threat to close Porto Marino Drive, one of the two accesses to the Castellammare area, but to Pacific Coast Highway itself.

It is in this context that the Commission must make its decision. Will the Leed's project

cause further geological instability. It is up to the applicant to establish that his project will not. As Mr. Michael proves, the applicant has failed to prove that his project will stabilize the active slide in which is in the center and that is because the applicant has focused on structural stability rather slide stability. That is because the applicant's geologists are not hydro geologists.

Not only that, Mr. Michael points out that the applicant's geologists have fudged on the soil density values, manipulating the values in order to get the desired results. (Michael Report, page 2, 1<sup>st</sup> full paragraph). His Critique of the applicant's Applied Load Analyses (Appendix A) Mr. Michael shows how erroneous it is.

### **Commission Should Require a Detailed Geotechnical Engineering Study.**

Mr. Michael concludes that in order to determine whether the project will result in slide stabilization a detailed geotechnical engineering study is necessary. The Commission should require such a study.

One reason is that the most critical stage in the proposed construction of the project will be the excavation of slide material on a steep hillside and the excavation will be substantial. The excavation could easily trigger a major landslide. It is made more critical because the slide extends above the Leeds' property so that the slide above the project must be adequately retained.

The applicant proposes that after installation of the piles, a five-foot excavation will be performed and a gunite retaining wall between the soldier piles on the vertical cut would be constructed and then only after the completion of this gunite wall will the next five foot excavation commence. Considering that there is a separation between the pilings of 10 feet or more, the use of gunite raises questions.

Mr. Michael stated that:

"Generally, gunite has almost no value as a retaining structure and none at all for a vertical cut. The first 5-foot cut would present no particular problem, but increasing its height in additional 5-foot increments would introduce a condition of potential instability that a gunite cover could not prevent."

Instead of providing more information that would show why Mr. Michael's analysis was incorrect, the applicant chose to respond by stating:

"Mr. Michael is not a structural engineer. As such, we do not expect him to know about structural engineering issues. The above claim is completely incorrect."

Instead of telling us why it is incorrect, the applicant just tells us we are all stupid except him. What it tells us is that the respondent may not himself be a qualified engineer. The problem is that it doesn't take an engineer to know that gunite is not going to support a slide

mass on a steep hill. It is common sense. Its dictionary definition is " A concrete mixture that is sprayed from a special gun over steel reinforcements *in light construction.*" (Emphasis added.) It is most often used in swimming pool construction and slope protection where the slope is not vertical.

However, it often is used without any reinforcement so no one knows how the applicant intends to use the gunite. Does the applicant intend to use reinforcing? If so, what type? How is the reinforcing to be attached to the structure? How thick will the gunite be? Will the gunite wall get thicker with each five feet?

One reason for Mr. Michael to be dubious about using gunite below the first five feet is that once the excavation goes below the first five feet there is nothing to prevent the earth sliding under the first five feet of gunite during the second cut. It is not uncommon in construction for that to happen. A preferable way to excavate is to drive in regular I-beam pilings every six feet and put 8 X 8 beams in between so that as each eight inches is excavated a beam slips down. Whether this is practical given the slide mass forces on this property is unknown but it would be far superior to using gunite.

Nevertheless, it is equally important to the Commission to have a detailed study of how the slide mass will be stabilized as it is to be assured of the stability of the structure.

Respectfully yours,



JACK ALLEN

cc: Mark Johnson, Calif. Coastal Commission, San Francisco

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May 6, 2003

Pacific Palisades Residents Association  
Post Office Box 617  
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**Subject:** Review of recently provided document re proposed development of 17633 Castellammare Drive Pacific Palisades Area, City of Los Angeles, California (Lot 6, Block 10, Castellammare Tract; MB 113-3/8; APN 4416-012-0160, to wit: Salehipour, Sassan A. and Ray Eastman, 2002, Response to State Geologist questions and EDM questions for 17633 Castellammare Drive, Pacific Palisades: MEC Geotechnical engineer, Inc. consulting rpt. for Mr. Ben Leeds (ref. 9LEE117), December 4.

Dear Members:

The subject MEC report: [i] addresses two questions directed to MEC by Mark Johnson State Coastal Commission Geologist; [ii] responds to issues raised in my report to PFRA dated August 8, 2002. The contents of my previous reports to PPRA dated August 1, 2001 and August 8, 2002, are incorporated herein by reference.

**Comments re MEC Answer to Question Q<sub>s</sub>1.**

Question Q<sub>s</sub>1 by Johnson requests a pseudo-static stability analysis of the slope between Posetano Road and Castellammare Drive where the Leeds property is situated. Such an analysis addresses, in a rather perfunctory way, the question of slope stability during an earthquake. Attachment 2 of the subject report, presented in response, includes:

- [i] Cross-section D-D' showing arbitrarily defined blocks numbered 1 through 9;
- [ii] a table of Factors of Safety and Equivalent Fluid Pressures for Blocks 5 through 9 acting on pile row A;
- [iii] force diagrams of Applied Lateral Loads for Blocks 5 through 9;
- [iv] a table of Factors of Safety and Equivalent Fluid Pressures for Block 4 acting on pile Row B;
- [v] a force diagram of Applied Lateral Loads for Block 4;
- [vi] a table of Factors of Safety and Equivalent Fluid Pressures for Block 3 acting on pile row C;
- [viii] a force diagram of Applied Lateral Loads for Block C;
- [ix] a table of Factors of Safety and Equivalent Fluid Pressures for Block 2 acting on pile row D; [x] a table of Factors of Safety and Equivalent Fluid Pressures for Block 2;
- [xi] a table of Factors of Safety and Equivalent Fluid Pressures for Block 1 acting on pile row E; [xii] a table of Factors of Safety and Equivalent Fluid Pressures for Block 1.

The significance of these data is not readily apparent from the MEC presentation. Probably, like most geotechnical engineering companies practicing these days, a computer software program is utilized. Such programs generally are reliable for their intended purposes, but they produce erroneous results when the introduced variables are incorrect in the sense of not representative of actual conditions, i.e., the garbage in - garbage out principle. Unless MEC provides the model, software-based or otherwise, upon which the data presented in paragraphs [i] - [xii] are based, such data cannot be evaluated. Technical objections that bring this entire approach by MEC into question

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are discussed in Appendix A. In any event, several aspects of the presentation bear mentioning.

First, the value of "soil density" as geotechnical engineers use the term actually has units of weight per unit volume rather than mass per unit volume. The value of 115 pounds per cubic foot (pcf) used in the subject report is different from that previously used for the landslide debris underlying the Leeds slope. For example, in its report dated March 19, 2002, MEC uses a value of 120 pcf, and in its report dated October 8, 2001, a value of 130 pcf is used. One supposes that the smaller value produces a more advantageous result for the less cautious developer, because seismic force varies directly with mass. In any event, without the model, there is no apparent justification for using the 115 pcf value.

Second, it appears that the calculated forces are based upon the assumption of a pseudo-static safety factor of 1.1. Since in all cases the resulting calculated driving forces exceed the resisting forces, it must be presumed that the proposed pile system will be adequate to maintain structural integrity as well as slope stability in the event of a significant seismic event. If this is the case, it appears appropriate to include structural engineering calculations to assure that the pile system is adequately designed.

#### Comments re MEC Answer to Question Q<sub>s2</sub>.

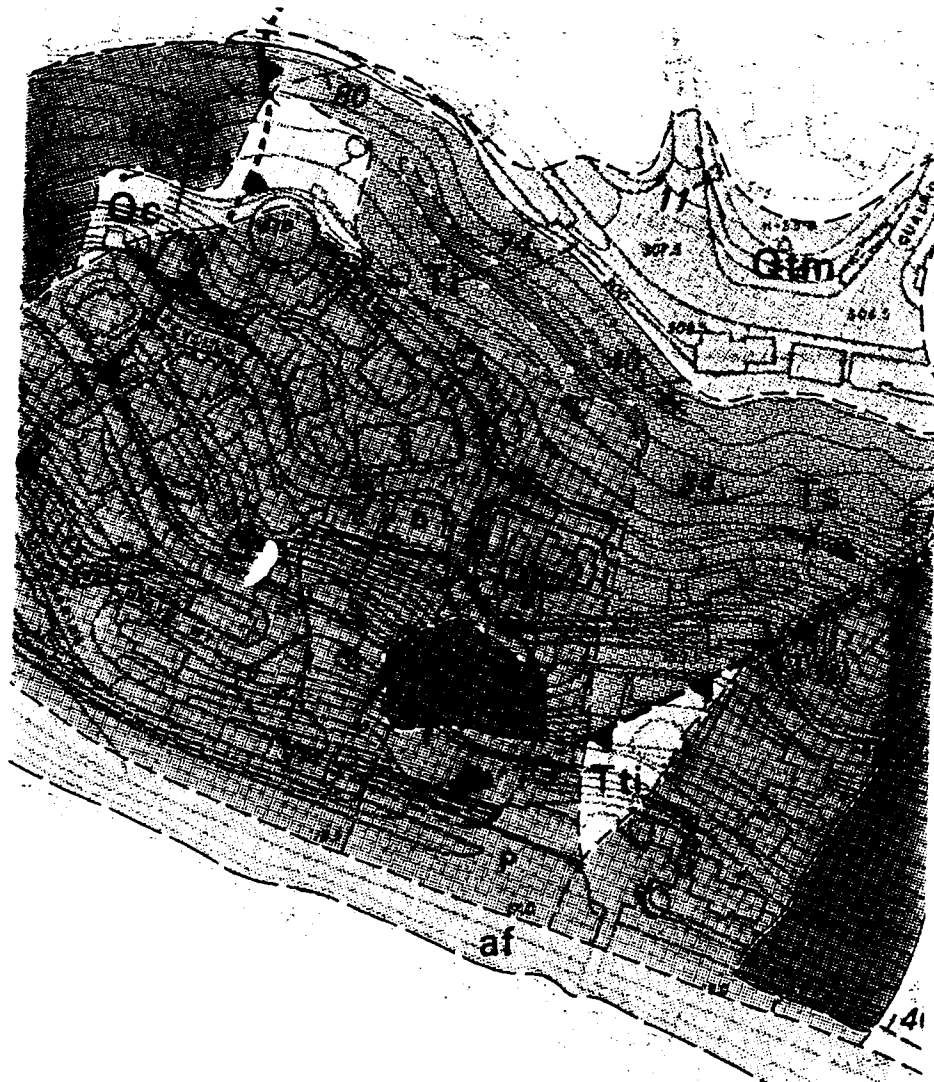
Question Q<sub>s2</sub> by Johnson requests a presentation of the results of inclinometer readings. Apparently, on or before May 31, 2002, MEC installed two inclinometers, one in the northernmost part of the Leeds property adjacent to Posetano Road, designated I-1, and the other in its southeastern corner adjacent to Castellammare Drive, designated I-2. So far as is apparent from the record reviewed, MEC prepared no separate report concerning these installations. However, Attachment 3 of the subject report contains a plot of displacements of I-1 probably for the period May 31 - October 31, 2002.

Figure 2 of Attachment 3 shows no definite offset, but suggests possible tilting of the entire penetrated mass slightly to the northeast. There is the suggestion of offset at a depth of 52 feet, and it is to be noted that the depth to the slide surface at that location is 48 feet (see subject report, Attachment 2, "Applied Lateral Loads on Block 5"). However, MEC considers the results to be "... within the tolerance of the apparatus and do not indicate a movement" (A<sub>s2</sub>). This is entirely subjective view of matters - it has no factual basis.

That the inclinometer data do represent movement is strongly suggested by the fact that careful observations during the period of July, 2001 to the present show clear evidence that what I have previously referred to as the Posetano Drive landslide is active. An extensive photographic record has been prepared by William Clearihue of 17700 Revello showing increasing movement in his property during the last year or so as well as that at 17627 Posetano Road. This movement is consistent with the evidence presented in my reports to PPRA dated August 1 and December 27, 2001.

More relevant for present purposes is evidence that the movement is now also apparent in the property adjacent to that of Clearihue on the west at 17712 Revello Drive. There fractures in the southeastern corner of the house foundation (Photo 1 in Appendix B), and in a retaining wall at the western side of the property (Photo 2 in Appendix B), show

that the crown of the landslide now extends west of the Clearihue property. Plate 1, adapted from McGill's 1989 map shows the apparent boundaries of the Posetano Drive landslide as currently interpreted. This interpretation is based not only on observed damage to structures along the landslide crown, but also indications of dilation at the base of the slide along Porto Marina Way (See Photos 3, 4, 5 and 6, Appendix BA).



**Plate 1. Postulated Posetano Road Landslide.**

This plate is an enlargement of a part of John T. McGill's 1989 U.S. Geological Survey Miscellaneous Investigation Series Map I-1828 (Sheet 1). L indicates the location of the Leeds property. The heavy black line is the apparent crown of the Posetano Road landslide. The short dashes indicate its postulated lateral contacts and toe. Qlo indicates pre-historic landslide debris; Ts indicates Sespe Formation. Springs are shown as small green circles with tails. Addresses are: a - 17627 Posetano Road; b - 17700 Revello Drive; c - 17712 Revello Drive. P indicates the intersection of Porto Marina Way and Pacific Coast Highway. North is toward the top of the page; approximate scale: 1 inch = 200 feet.

#### **Comments re MEC Response Am1 - Am6.**

The subject report asserts various arguments in response to opinions presented in my report of August 8, 2002. In this regard, the following comments are relevant.

**A<sub>m</sub>1 - Asserted Error No. 1.**

MEC cites as Error No. 1 that my original objection to its stability analysis does not include the seepage force. In response MEC asserts that its "uplift force" includes a horizontal component that "... when used properly..." in Column 9 of its Attachment 4 and thus, somehow in a way unclear, results in a seepage force equivalent to that I calculated. In other words, MEC is asserting that there is a downslope component of the force due to hydrostatic pressure which *is* the seepage force.

Nothing could be farther from the truth. The seepage force is *dynamic*. It is a result of actual movement of water through the mass. The hydrostatic force is, surprise, surprise, *static*. The seepage force is independent of the hydrostatic force. Actually, the presence of hydrostatic force is irrelevant to the issue of stability insofar as the condition above the slide plane is concerned. It is the force of buoyancy in the saturated zone that affects stability through the principle of effective stress. For further explanation, refer to Appendix A.

**A<sub>m</sub>2 - Asserted Error No. 2.**

Same comment. If MEC actually believes the seepage force is affected by a pressure, the "factor" mentioned should be explained. Again, refer to Appendix A.

**A<sub>m</sub>3 - Dewatering.**

The MEC authors conveniently ignore a fact that every hydrogeologist practicing locally knows: based on experience, the Sespe Formation, which directly underlies the ancient landslide debris in the vicinity of Posetano Road and Castellammare Drive, is generally composed of well cemented resistant sandstones and conglomerates that have very little permeability. With even a rudimentary knowledge of the hydrogeologic character of the Sespe locally, the MEC consultants would know that except for unpredictable perched zones, the Sespe yields virtually no ground water. Such knowledge is not subjective, it is based upon experience. As a truly subjective view of the matter, consider MEC's apparent position that the Sespe is permeable and if saturated would respond to pumping with a wide cone of depression.

It is to be noted that this lack of permeability has nothing to do with a reduction in strength below the slide plane, again according to the effective stress principle, when the Sespe is saturated. In this regard, the level of the saturated zone at the Leeds property has been merely assumed.

**A<sub>m</sub>4 - Guniting as a Retaining Structure.**

Guniting is usually applied by spraying, sometimes over steel mesh, sometimes not. So far as I know, it is never used for slope stabilization except to prevent surface saturation and erosion. Guniting seldom is placed thicker than about 4 inches. For its performance as a retaining structure, I direct MEC's attention to the collapsed guniting slope about 100 feet west of the intersection of Pacific Coast Highway and Coastline Drive, just west of Castellammare. Go take a look at it fellows, but don't stand too close.

**A<sub>m</sub>4. Back-calculation.**

I am familiar with back-calculation, and where in my work a need for its explanation is necessary MEC does not say. Perhaps MEC should add that the main problem with back-calculation is determining the original topography.

**A<sub>m</sub>5 - A<sub>m</sub>6 - Professional Disagreement.**

MEC is free to disagree with my professional opinions. However, the foregoing should demonstrate that it would be better to have something more than a frantic desire to avoid being caught in error as the basis for such disagreement.

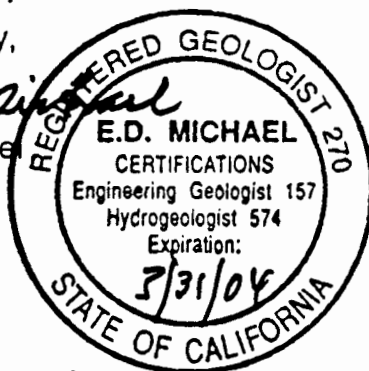
**Conclusions**

The reports by MEC cannot be relied upon as a description of slope stability conditions in the Leeds property for two reasons. First, the calculations of "Applied Lateral Loads" presented in Attachment 2 of the subject report remain questionable. As explained in Appendix A, the entire mechanism by which MEC has analyzed the driving and resisting forces subject and previous reports appears to be erroneous.

Second, the proposed development of the Leeds property does not consider the fact that the mass of debris underlying the site, as well as a large area adjacent to the west below the properties at 17700 and 17712 Revello Drive, is underlain by an active landslide. The currently proposed pile cage appears to be essentially a foundation system. It is not intended as a method of slide stabilization, but rather one to stabilize proposed vertical cuts in the Leeds property. Whether the part of the active mass in the Leeds property can be stabilized independently from the rest of the mass cannot be determined at this time. Stabilization probably will require either a system of closely spaced soldier piles or possibly a very extensive system of rock bolts. In any event, a detailed geotechnical engineering study is necessary to determine appropriate remedial measures that are certain to be very costly.

Respectfully,

*E.D. Michael*  
E.D. Michael



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