

## CALIFORNIA COASTAL COMMISSION

SOUTH CENTRAL COAST AREA

SOUTH CALIFORNIA ST., SUITE 200

STURTEVANT, CA 93001

(805) 585-1800

Filed: 01/08/02  
49th Day: 02/26/02  
180th Day: 07/07/02  
Staff: CF  
Staff Report: 1/15/02  
Hearing Date: Feb 5, 2002  
Commission Action:



## RECORD PACKET COPY

### STAFF REPORT: REGULAR CALENDAR

**APPLICATION NO.:** 4-00-266

**APPLICANTS:** (Caltrans) California Department of Transportation

**PROJECT LOCATION:** 19900 Pacific Coast Highway, City of Malibu, Los Angeles County. Project is on the north and south side of PCH as well as under the highway, located immediately adjacent and west of the Big Rock Drive/PCH intersection. Storm drain outlet is to Malibu City Beach between Big Rock Beach to the west and Las Tunas County Beach to the east (Exhibit 5, Page 1).

### **PROJECT DESCRIPTION:**

Construct a secondary 10 foot by 6 foot reinforced concrete culvert under Pacific Coast Highway; a concrete drain inlet and associated headwall on the inland side of Pacific Coast Highway; a concrete outlet structure with rock and concrete velocity dissipator and rock rip-rap slope protection seaward of the outlet extending onto the back beach; removal of an existing rock and concrete seawall; and removal of a concrete box structure on the bluff face. The project also includes construction of a vista point with dirt trail, two park benches, bus stop bench, native landscaping, and a 4.5 foot high wood fence fronting the bluff top. Finally, the applicant has offered to make available a 17 foot wide corridor on the subject property to a public agency or private association to develop and maintain a public pedestrian access-way from the bluff top to the shoreline and install standard California Coastal Access signs on Pacific Coast Highway.

### **SUMMARY OF STAFF RECOMMENDATION**

Staff recommends **approval** of the proposed project with ten (10) special conditions regarding: (1) coastal access and recreation, (2) vegetation, landscaping monitoring, and maintenance (3) interim erosion control (4) riparian mitigation and restoration plan (5) construction responsibilities and debris removal (6) removal of excavated material (7) drainage structure maintenance responsibility (8) revised plans and design specification (9) required approvals (10) assumption of risk, waiver of liability, and indemnity

**SUBSTANTIVE FILE DOCUMENTS:** Notice of Decision to Appraise by Caltrans District 7 dated September 28, 2000; Caltrans Memorandum of Big Rock Beach Final Settlement Agreement; Biological Resources Discussion Wetland Delineation by Frank & Associates, Inc, and HDR Environmental; Report of Archeological Survey: Pacific Coast Highway Storm Damage Project, Big Rock, Malibu, Los Angeles County, California by Applied Earthworks; Categorical Exemption/Categorical Exclusion/Programmatic Categorical Exclusion

Determination Form for EA 1X1401 dated 3/1/00; Geotechnical Design Report PCH at PM 42.5 at Piedra Gorda Canyon dated November 30, 1999 by HDR Engineering; Hydrologic/Hydraulic Study Report PCH at PM 42.5 at Piedra Gorda Canyon dated November 30, 1999 by HDR Engineering; California Department of Fish and Game 1601 Streambed Alteration Agreement notification no. 5-255-00; Conditional Certification for Proposed Pacific Coast Highway at Big Rock Drive Project (Corps Project No. 2000-01805-AOA), Pacific Ocean, City of Malibu, Los Angeles County (file No. 00-116) dated 09/29/00; US Army Corps of Engineers letter per request No. 2000-01781-AOA, dated 10/10/00; Wave Runup and Beach Impact Study by Caltrans District 7 dated April, 2001; Letter to Caltrans from the Santa Monica Mountains Recreation and Conservation Authority dated November 10, 2001. Recommended List of Plants for Landscaping in the Santa Monica Mountains, California Native Plant Society, Santa Monica Mountains Chapter, dated February 5, 1996.

### **STAFF RECOMMENDATION:**

**MOTION:**        *I move that the Commission approve Coastal Development Permit No. 4-00-266 pursuant to the staff recommendation.*

#### **Staff Recommendation of Approval:**

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

#### **Resolution to Approve the Permit:**

The Commission hereby **approves** a permit, subject to the conditions below, for the proposed development on the grounds that the development, as conditioned, will be in conformity with the provisions of Chapter 3 of the California Coastal Act. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives substantially lessen any significant adverse impacts of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

## **II. Standard Conditions**

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

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

### **III. Special Conditions**

#### **1. Coastal Access and Recreation**

To implement Caltrans' offer to make the property currently designated as APN 4450-001-039 available for public pedestrian access and passive recreational use, by acceptance of this permit, Caltrans agrees to the following: a) upon completion of the drainage improvements authorized in the permit, the bluff top portion of the property currently designated as APN 4450-001-039 shall be made available to the public for passive recreational use, as shown on Exhibit 2, page 1 and b) a minimum seventeen (17) foot wide corridor extending from the top of the bluff to the beach on the property currently designated as APN 4450-001-039 shall be made available to a public agency, or private association acceptable to the Executive Director, to develop and maintain a public pedestrian access-way to the shoreline, as shown on Exhibit 2, pages 1 and 2. Applicant agrees to install standard California Coastal Access signs in the west bound and east bound PCH directions approaching both the project location at 19900 PCH and at the nearest existing vertical access way at 20000 PCH.

#### **2. Landscaping, Monitoring, and Maintenance**

Prior to issuance of a coastal development permit, the applicant shall submit landscaping and erosion control plans, prepared by a licensed landscape architect or a qualified resource specialist, for review and approval by the Executive Director. The plans shall identify the species, extent, and location of all plant materials and shall incorporate the following criteria:

- (1) All graded and disturbed areas on the subject site, temporary access roads, staging areas, and stockpile areas shall be planted and maintained for erosion control purposes within (60) days after the completion of final grading. To minimize the need for irrigation all landscaping shall consist primarily of native/drought resistant plants as listed by the California Native Plant Society, Santa Monica Mountains Chapter, in their document entitled Recommended List of Plants for Landscaping in the Santa Monica Mountains, dated February 5, 1996. Invasive, non-indigenous plant species that tend to supplant native species shall not be used. In addition:
- (2) Planting should be of native plant species indigenous to the Santa Monica Mountains using accepted planting procedures, consistent with fire safety requirements. Such planting shall be adequate to provide 90 percent coverage within five (5) years. This requirement shall apply to all disturbed soils;

- (3) Permittee shall retain responsibility for regular maintenance of landscaped areas ensuring the maintenance of good growing conditions throughout the life of the project and, whenever necessary, existing plantings shall be replaced with new plant materials to ensure continued compliance with applicable landscape requirements. The Executive Director must approve any change in responsibility for maintenance and repair of these facilities.
- (4) Five (5) years, from the completion of final planting, the applicant 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 indicates whether the on-site landscaping is in conformance with the revegetation plan approved pursuant to this Special Condition. The monitoring report shall include photographic documentation of plant species and plant coverage, a listing of the species that did not establish properly, and a listing of the plant species that were replanted to comply with these Special Conditions.
- (5) If the landscape monitoring report indicates that landscaping is not in conformance with, or has failed to meet the performance standards specified in the landscape plan approved pursuant to this permit, the applicant, or successors in interest, shall submit a revised or supplemental revegetation plan for the review and approval of the Executive Director. The revised landscape 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.

### **3. Interim Erosion Control Plan**

Prior to issuance of a coastal development permit, the applicant shall submit an erosion control plan for review and approval by the Executive Director. The plans shall identify the Best Management Plans (BMP's) to be implemented and shall incorporate the following criteria:

- (1) 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.
- (2) BMP's shall be identified to stabilize any stockpiled fill with geofabric covers or other appropriate cover, install geotextiles or mats on all cut or fill slopes and close and stabilize open trenches as soon as possible. These erosion measures shall be required on the project site prior to and concurrent with the initial grading operations and maintained throughout the development process to minimize erosion and sediment from runoff waters during construction.
- (3) The plan shall also include temporary erosion control measures to be implemented 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, swales, and sediment basins. The plans shall also specify that all disturbed areas treated for temporary erosion control purposes shall be 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;

- (4) Appropriate BMP's to regulate sediment tracking from vehicles involved in all construction shall be implemented throughout the life of the project and during any subsequent maintenance activities. All sediment should be retained on-site unless removed to an appropriate approved dumping location either outside the coastal zone or to a site within the coastal zone permitted to receive fill.

#### 4. Riparian Mitigation and Restoration Plan

Prior to the issuance of a Coastal Development Permit, the applicant shall submit, for the review and approval of the Executive Director, a riparian restoration and mitigation plan, prepared by a qualified biologist or resource specialist, for the area shown on Exhibit 1, page 11, and for the area to be restored as mitigation for the loss of riparian vegetation not yet designated. Within 90 days of completion of the project approved pursuant to this permit the applicant shall implement the approved riparian restoration and mitigation plan.

A. The riparian restoration and mitigation plan shall include, but not limited to the following criteria:

- 1) Permanent loss of riparian habitat as a result of the proposed project shall be mitigated at a ratio of 3:1. Riparian and native vegetation temporarily disturbed or removed by construction activities shall be replanted with appropriate riparian or native plant species.
- 2) A written ecological assessment of the project area and the proposed restoration/mitigation area.
- 3) Statement of goals, objectives and performance standards.
- 4) Proposed restoration description and plans including site plan; topography survey; profiles; and section views of the project illustrating how the project fits into the surrounding landscape, how the project area will appear immediately subsequent to construction, and how the project area will appear once the goals are realized.
- 5) Vegetation specifications providing information on removal methods for exotic species, salvage of existing vegetation, revegetation methods and vegetation maintenance. The plan shall include details regarding the types, sizes, and location of plants to be placed within the mitigation area.
- 6) To facilitate restoration, the applicant shall salvage native topsoil (the top 6-12 inch deep layer containing organic material from the worksite prior to construction. Following construction, salvaged topsoil shall be returned to the work area and placed on the restoration site.
- 7) Mitigation for this lost riparian habitat must be conducted in the Piedra Gorda watershed as close as possible to the area of impact.
- 8) Timing of construction will include no removal of vegetation near the drain inlet from March 1 to June 15<sup>th</sup>, the recognized breeding, nesting, and fledgling season for most bird species.

- 9) The applicant shall comply with all requirements of the approved plan.

**B. Monitoring**

The applicant shall retain a qualified biologist, or other resource specialist to monitor the restoration area for a period of five (5) years minimum. An annual monitoring report on the mitigation area shall be submitted for the review and approval of the Executive Director for each of the five years. If replacement plantings are required, the applicant shall submit, for the review and approval of the Executive Director, a replacement planting program, prepared by a qualified biologist, or other resource specialist, which specifies replacement plant locations, size, planting specifications, and a monitoring program to ensure that the replacement planting program is successful.

**5 Construction Responsibilities and Debris Removal**

The applicant shall by accepting this permit agree: a) that no stockpiling of dirt or building materials shall occur on the beach; b) that all grading shall be properly covered and sand bags, plastic sheeting, silt fence or other appropriate BMP's will be implemented to prevent runoff; and c) that measures to control erosion must be implemented at the end of each day of work. In addition, no vehicles or machinery other than hand tools will be allowed at the base of the bluff or on the adjacent beach at any time during or after construction. The permittee also agrees that they shall remove from the beach and the construction area any and all debris that result from construction or other activities associated with the project.

**6. Removal of Excavated Material**

Prior to the issuance of the coastal development permit, the applicant shall provide evidence to the Executive Director of the location of the disposal site for all excavated material from the site. Should the dump site(s) be located in the coastal zone, a coastal development permit shall be required.

**7. Drainage Maintenance Responsibility**

With acceptance of this permit, the applicant agrees that should any of the project's surface or subsurface drainage structures, recreation facilities, or slope stabilization structures fail or result in erosion, the applicant/landowner or successor-in-interest shall be responsible for any necessary repairs or restoration to these structures or facilities and/or repair or restoration of the eroded area(s). Should repairs or restoration become necessary, prior to the commencement of such repair or restoration work, the applicant shall submit a repair and restoration plan to the Executive Director to determine if an amendment or new coastal development permit is required to authorize such work.

**8. Revised Plans / Design Specifications**

Prior to the issuance of the coastal development permit, the applicant shall submit, for the review and approval of the Executive Director, detailed revised drainage outlet plans and specifications, prepared by a qualified engineer, which clearly illustrate the as-built topography of the graded area, all drainage

elements included in the project, and detail of all permanent and temporary structures, stockpile sites, access ways included in this project.

The revised design plans for Drainage Details shall be modified as follows:

- a) The layout plan L-1 (Exhibit 1, page 2) and the drainage detail plan D-4, Section A-A (Exhibit 1, Page 5) shall be modified to include:
  - (1) seaward limit of rock slope protection in front of the drain outlet shall be moved landward 4.92 feet (1.5 meters), and
  - (2) placement of the seaward 4.92 feet (1.5 meters) of the two (2) ton rock rip-rap of this same rock slope protection at the mouth of the drain outlet shall be arranged in such a manner as to provide a flat surface and arranged in such a manner as to facilitate lateral access along the coast and recreational use of this area.
- b) Layout plan L-1, (Exhibit 1, Page 2) shall be modified to include:
  - (1) removal of the existing block wall in the south east corner of the bluff face, and
  - (2) removal of the entire existing rock and concrete seawall that extends from east to west along the base of the bluff, and
  - (3) removal and no replacement or resetting of the chain link fence located at the edge of curb at 19900 PCH.

## **9. Required Approvals**

- (1) Prior to issuance of a coastal development permit, the applicant shall submit proof to the Executive Director that CDP application 4-00-077, submitted by the prior owner of the parcel located at 19900 PCH, has been withdrawn.
- (2) Prior to issuance of a coastal development permit, the applicant shall submit proof to the Executive Director that the project has received approval by the State Lands Commission, or proof that the State Lands Commission has determined that no approval is required for this project.
- (3) Prior to the commencement of development activities, the applicant shall submit to the Executive Director proof that the United States Army Corps of Engineers has issued the proper authorization and permit subsequent to section 404 of the Clean Water Act to proceed with this development.

## **10. Assumption of Risk, Waiver of Liability and Indemnity Agreement**

Prior to issuance of the coastal development permit, the applicant shall submit a written agreement, in a form and content acceptable to the Executive Director, which states that the applicant acknowledges and agrees (i) that the site may be subject to hazards from flooding, debris flows, wave action, , erosion, and wildfire; (ii) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and

employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

#### **IV. Findings and Declarations**

The Commission hereby finds and declares:

##### **A. Project Description and Background**

The project site is located immediately north of the intersection of Big Rock Drive and PCH at post mile 42.5 in the City of Malibu, Los Angeles County. The proposed drainage facility will be expanded from the drainage culvert inlet located on the inland side of PCH at 19901 PCH, proceed underneath PCH at a south east angle and emerge under and seaward of the parcel located at 19900 PCH.

The applicant proposes to construct a secondary culvert under Pacific Coast Highway with a storm drain outlet directly onto Big Rock Beach. This drain would convey storm water from Piedra Gorda creek, a designated United States Geological Survey (USGS) blue line stream. The project would enhance the capacity of the existing drainage under PCH. This 10 foot by 6 foot reinforced concrete culvert would cross under PCH and discharge to an outlet structure 7.9 feet above the mean high water mark. An expanded drain inlet would be installed on the inland (north) side of PCH, and the headwall at the existing drain inlet would be raised 6 feet. The new drain inlet, immediately adjacent and to the east of the old drain inlet (Exhibit 1, Page 4) would be placed 4.6 feet (1.4 meters) lower than the existing drain inlet., so a majority of flow from smaller storms will now exit from the new outlet with flow from high level storms exiting both outlets. A new drain outlet would be installed at the seaward (south) side of 19900 PCH, and the area below the new outlet would be protected with a concrete and rock energy dissipator and rock rip-rap slope protection seaward of the energy dissipator (Exhibit 1, Page 5). There would be no construction or repair of the existing culvert outletting under 199012 PCH allowed under this coastal development permit except in the immediate vicinity of the drain inlet structure.

A vista point with a dirt trail, native vegetation, park benches, a park bench, and a wood fence would be constructed on top of the bluff at the parcel located at 19900 PCH. Caltrans has agreed to allow another entity to install and maintain a vertical access stairway on the eastern edge of the parcel located at 19900 PCH and has provided conceptual plans for such a stairway/access way as shown in Exhibit 2, Page 1 and Exhibit 2, page 2. Under this permit Caltrans also agrees to install Coastal Access signs east and west of both the parcel located at 19900 PCH and at the nearest existing vertical access way in the vicinity of the project at 20000 PCH.

In 1994 and 1995 there was flooding damage to 19912 PCH and adjacent properties caused by failure of conveyance by the existing drainage culvert for the Piedra Gorda creek that enters under PCH at 19901 PCH and exits at 199012 PCH. Cause of flooding was determined to be



extremely high loads of sediment and debris during storm events. This unusually high level of debris was attributed to poor accretion of soil and vegetation subsequent to fire damage to the Malibu hills. As partial settlement for damage attributed to Caltrans' culvert failure Caltrans agreed to study, design, and, if found feasible, install additional drainage facilities to prevent future property damage of this nature.

Caltrans initially studied the possibility of increasing the capacity of the existing culvert outletting under and seaward of 199012 PCH but found that the cost of construction under an existing residence was prohibitive. Subsequently Caltrans filed a Notice of Decision to Appraise for the vacant parcel at 19900 PCH as the most likely alternative location for a drain outlet. On March 15, 2001 an Order for Possession for the Parcel located at 19900 PCH was filed with the Superior Court of the State of California for the County of Los Angeles, and on November 9, 2001 a Right of Way Certification No. 2 was completed giving Caltrans legal title to proceed with construction on the parcel at 19900 PCH. This Right of Way Certification No. 2 also provides the requisite proof of right to proceed with construction activities at the drain inlet location at the parcel located at 19901 PCH.

## **B. Shoreline Development**

The proposed project includes construction of a concrete outlet for the proposed culvert on the face of a small bluff with a rock and concrete velocity dissipator and rock slope protection in front structure that extends onto the back beach (Exhibit 1, page 5). The rock rip-rap shoreline protective structure fronting the outlet is necessary to protect neighboring residential structures and the beach from scour and erosion of the beach from high velocity flood flows. The rock rip rap also protects the outlet structure from wave and tidal induced scour and erosion of the beach. The applicant is also proposing to remove an existing rock and concrete seawall located seaward of the proposed outlet structure that served to protect a previous residence on the site that was demolished.

Past Commission review of shoreline projects in Malibu has shown that such development results in potential individual and cumulative adverse effects to coastal processes, shoreline sand supply, and public access. Shoreline development, if not properly designed to minimize such adverse effects, may result in encroachment on lands subject to the public trust (thus physically excluding the public); interference with the natural shoreline processes necessary to maintain publicly-owned tidelands and other public beach areas; overcrowding or congestion of such tideland or beach areas; and visual or psychological interference with the public's access to and the ability to use public tideland areas. In order to accurately determine what adverse effects to coastal processes will result from the proposed project, it is necessary to analyze the proposed project in relation to characteristics of the project site shoreline, location of the development on the beach, and wave action. Therefore, it is necessary to review the proposed project for its consistency with Sections 30235, 30250(a) and 30253 of the Coastal Act and with past Commission action.

Section 30235 of the Coastal Act states:

***Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion and when***

***designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fish kills should be phased out or upgraded where feasible.***

Section 30253 of the Coastal Act states:

***New development shall:***

***(1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.***

***(2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.***

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

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

## **1. Site Shoreline Characteristics**

The proposed project site is located to the east of Big Rock Beach and to the west of Las Tunas County Beach in the City of Malibu. Big Rock Beach is a relatively narrow beach backed by a graded coastal bluff that created Pacific Coast Highway. Landward of Pacific Coast Highway is the original bluff top located over 100 feet above the Highway. Big Rock Beach is a rocky/sandy beach that is narrow and steep, approximately 40 feet wide. There are rocky reefs seaward of this beach which provide some protection to the beach from ocean waves. Big Rock Beach is located within the Dume Littoral Subcell, which geographically extends from approximately Point Dume to Redondo Beach. The Dume Subcell is part of the larger Santa Monica Littoral Cell. Fluvial sediment from Malibu Creek and other local streams provides only 40% of the sediment or sand flow, while 60% of the sediment is derived from beach/bluff erosion within the Dume Subcell.<sup>1</sup>

The sources of sediment for beaches backed by coastal bluffs, such as project site, are the eroding bluffs themselves, as well as eroded material from inland areas carried to the beach by small coastal streams. Narrow beaches backed by coastal bluffs experience seasonal and interannual changes similar to other sandy beach, however, unlike wide sandy beaches, bluff backed beaches do not have ample beach material to maintain a dry sandy beach during periods of high wave energy. As such, narrow bluff backed beaches often scour down to bedrock during winter months. At the subject site, the bedrock layer is a gradually sloped, wave

---

<sup>1</sup> Army Corps of Engineers, Los Angeles District, Reconnaissance Study of the Malibu Coast. 1994

abraded platform ranging from 1:25 to 1:30 slope located between -15 foot elevation to Mean Sea Level at 2.8 feet above Mean Low Low Water.

In the 1920's Pacific Coast Highway was constructed along Big Rock Beach at or seaward of the base of the bluff, thus, altering the natural process of shoreline nourishment, processes that would expose the bluff to wave attack as the beach eroded during periods of high wave energy. Wave attack that would occur along a natural, unaltered shoreline would erode the base of the bluff and cause it's position to retreat landward. The dynamic of bluff erosion and retreat results in the landward migration of the bluff and, in turn, establishment of new beach area. In the case of Big Rock Beach, the back of the beach has been fixed by Pacific Coast Highway and its protective slope retaining walls and by shoreline protective devices that have been constructed by private property owners on the beach to protect residential development. Due to the construction of Pacific Coast Highway and shoreline protective structures at the base of the bluff, Big Rock Beach does not retreat in response to natural coastal processes and beach material that would normally erode from the bluff in response to wave attack is no longer available to replenish the beach.

Big Rock Beach is a narrow beach that has been developed with numerous single family residences located seaward and to the east and west of the subject site. The Malibu/Los Angeles County Coastline Reconnaissance Study by the United States Army Corp of Engineers dated April 1994 indicates that residential development on Big Rock Beach is exposed to recurring storm damage because of the absence of a sufficiently wide protective beach and that damage to older, low-lying, and less well constructed structures is expected.

In addition to being a relatively narrow beach that is frequently exposed to wave attack, significant evidence exists which suggests that Big Rock Beach is an eroding beach. The 1994 Malibu/Los Angeles County Coastline Reconnaissance Study referenced above concludes that Big Rock Beach is experiencing slow erosion, or in effect, long-term shoreline retreat.

## **2. Location of the Proposed Shoreline Protective Device in Relation to the Mean High Tide Line and Wave Action**

The applicant has submitted a Wave Runup and Beach Impact Study which describes an ambulatory mean high water mark which is the mean between two the daily mean high tides. This mean high water mark is approximately 8 feet (2.45 meters) seaward of the toe of the proposed rip-rap slope protection as revised per the conditions in this staff report (exhibit 1, page 5). In a wave run up study conducted by Caltrans (Wave Runup and Beach Impact Study dated April 23, 2001 by Jerrel Kam, Department of Transportation, State of California) for a nearby retaining wall project on this same beach included a number of surveyed mean high tide lines. An exhibit to this Study is the Beach and Offshore Profile which identifies the location of the surveyed mean high tide lines on the subject site as measured during several fall and winter months between 1928 and 1961 and surveyed beach profiles in 1967, 1967, and 1976. This Profile identifies the most landward measurement of the winter ambulatory mean high tide, January 1961, at about 50 feet seaward of the face of the bluff. The coastal area seaward of the subject site is characterized as being made up of a steep beach composed of very coarse sands, cobble and rock.

Based on the submitted information, the proposed development appears to be located landward of the ambulatory high water mark and ambulatory mean high tide line. However, the identified mean high water mark and mean high tide lines have not been verified by the State Lands

Commission and the measurement represents only one yearly measurement which does not provide adequate information for a definitive determination of the current location of the mean high tide line at the site. The location of the mean high tide line at the site is ambulatory in nature and the proposed outlet structure and rip-rap slope protection may, at times or over time as sea level rises, be subject to wave run-up that exceeds the landward location of the proposed seawall.

Although the proposed structures will be located landward of the identified mean high water mark and mean high tide lines the maximum wave uprush along Big Rock Beach is located seaward of the Pacific Coast Highway right-of-way line (Beach Impact Study prepared by the Department of Transportation dated April 23, 2001). This, in general, coincides with the location where the bedrock slope steepens and changes from being nearly horizontal to being more vertical. Therefore, the proposed rip-rap slope protection and outlet structure at times will be subject to wave action. The Commission finds that the proposed rock rip-rap is necessary to protect the outlet structure from wave scour and erosion. In addition, rock rip-rap slope protection is necessary to prevent damage to adjacent residential development and the beach from scour and erosion from flood flows through the culvert.

### **3. Effects of the Shoreline Protective Structure on the Beach**

One of the main functions of a shoreline protective structure is protection of the upland area and structures landward of the shoreline protective structure. While they are often effective in protecting the landward development, they do nothing to protect the beach seaward of the shoreline protective device and often can have adverse effects on the nearby beach area. Dr. Douglas Inman, a recognized authority on Southern California beaches concludes that, "the likely detrimental effect of the seawall on the beach can usually be determined in advance by competent analysis." Dr. Inman further explains the importance of the seawall's design and location as it relates to predicting the degree of erosion that will be caused by the shoreline protection device. He states:

*Seawalls usually caused accelerated erosion of the beaches fronting them and an increase in the transport rate of sand along them. While natural sand beaches respond to wave forces by changing their configuration into a form that dissipates the energy of the waves forming them, seawalls are rigid and fixed, and at best can only be designed for a single wave condition. Thus, seawalls introduce a disequilibrium that usually results in the reflection of wave energy and increased erosion seaward of the wall. The degree of erosion caused by the seawall is mostly a function of its reflectivity, which depends upon its design and location.<sup>2</sup>*

In past permit actions, the Commission has found that one of the most critical factors controlling the impact of a shoreline protective device on the beach is its position on the beach profile relative to the surf zone. All other things being equal, the further seaward the wall is, the more often and more vigorously waves interact with it. The best place for a seawall, if one is necessary, is at the back of the beach where it provides protection against the largest of storms. By contrast, a seawall constructed too near to the mean high tide line may create problems related to frontal and end scour, as well as upcoast sand impoundment.

---

<sup>2</sup> Letter dated 25 February 1991 to Coastal Commission staff member and engineer Lesley Ewing from Dr. Douglas Inman.

Ninety-four experts in the field of coastal geology signed the following statement of the adverse effects of shoreline protective devices:

*These structures [seawalls, revetments and bulkheads] are fixed in space and represent considerable effort and expense to construct and maintain. They are designed for as long a life as possible and hence are not easily moved or replaced. They become permanent fixtures in our coastal scenery but their performance is poor in protecting community and municipalities from beach retreat and destruction. Even more damaging is the fact that these shoreline defense structures frequently enhance erosion by reducing beach width, steepening offshore gradients, and increasing wave heights. As a result, they seriously degrade the environment and eventually help to destroy the areas they were designed to protect.<sup>3</sup>*

The above statement states clearly that sandy beach areas available for public use can be harmed through the introduction of seawalls. Thus, in evaluating an individual project, the Commission assumes that the principles reflected in that statement are applicable. The proposed project involves a shoreline structure that, as a result of wave interaction with the structure, will seasonally affect the configuration of the shoreline and the beach profile. Even though the precise impact of a structure on the beach is a persistent subject of debate within the discipline of coastal science, and particularly between coastal engineers and marine geologists, it is generally agreed that a shoreline protective device will affect the configuration of the shoreline and beach profile whenever the structures are subject to wave uprush. The main difference between a vertical seawall and rock revetment seawall is their physical encroachment onto the beach. It is well documented by coastal engineers and coastal geologists that shoreline protective devices or shoreline structures in the form of either a rock revetment or vertical seawall will adversely impact the shoreline as a result of beach scour, end scour (the beach areas at the end of the seawall), the retention of potential beach material behind the wall, the fixing of the back beach, and the interruption of longshore processes<sup>4</sup>. In order to evaluate these potential impacts relative to the proposed structure, its design and location on Big Rock Beach will be analyzed, and each of the identified effects on the beach will be evaluated below.

**a. Beach Scour**

Scour is the removal of beach material from the base of a cliff, seawall or revetment due to wave action. The increase of scouring of beaches caused by protective devices is a frequently-observed occurrence. When waves impact on a hard surface such as a coastal bluff, rock revetment, or vertical seawall, some of the energy from the wave will be absorbed, but much of it will be reflected back seaward. This reflected wave energy in combination with the incoming wave energy, will disturb the material at the base of the seawall and cause erosion to occur in front and down coast of the hard structure. This phenomenon has been recognized for many

---

<sup>3</sup> Saving The American Beach: A Position Paper by Concerned Coastal Geologists, Results of the Skidaway Institute of Oceanography Conference on America's Eroding Shoreline: The need for geologic input into shoreline management, decisions and strategy, 25 – 27 March 1981, Savannah, GA.

<sup>4</sup> Gary B. Griggs, California's Coastline: El Niño, Erosion and Protection, in California's Natural Hazards, Proceedings from the Conference hosted by the California Shore and Beach Preservation Association and the University of Southern California Sea Grant Program, November 12 –14, 1997, Santa Barbara, CA).

years and the literature acknowledges, as cited below, that seawalls do affect local beach scour.

The proposed rock rip-rap slope protection will be subject to wave action during winter storm and tidal conditions on a regular basis. As the Commission has found in past permit actions, shoreline protective devices which are subject to wave action tend to exacerbate or increase beach scour [CDPs: 4-99-239 (Sol Brothers); 4-00-017 (Green); 4-00-057 (Morton) & 4-00-123 (Broad Beach ,LLC)]. This phenomenon has been recognized for many years. A 1976 report by the State Department of Boating and Waterways found that:

*While seawalls may protect the upland, they do not hold or protect the beach which is the greatest asset of shorefront property. In some cases, the seawall may be detrimental to the beach in that the downward forces of water, created by the waves striking the wall rapidly remove sand from the beach.*<sup>5</sup>

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

*Armoring can cause localized additional storm scour, both in front of and at the ends of the armoring...Under normal wave and tide conditions, armoring can contribute to the downdrift deficit of sediment through decreasing the supply on an eroding coast and interruption of supply if the armoring projects into the active littoral zone.*<sup>6</sup>

As stated previously, Big Rock Beach is a narrow eroding beach. Scouring and beach erosion resulting from construction of a rock rip rap slope protection will translate into a loss of beach sand at an accelerated rate. The resultant sand loss will be greater during high tide and winter season conditions than would otherwise occur if the beach were unaltered. Because there is already a narrow beach at Big Rock Beach, even a small loss of the beach slope seaward of the wall would reduce the physical and temporal availability of the beach at this location for public use.

The proposed rock slope protection will be acted upon by waves during storm conditions and the winter season. A seasonal eroded beach condition can be expected to occur with greater frequency due to the placement of the slope protection on the subject site. Additionally, factors such as an increase in storm frequency or an increase in sea level rise will subject the proposed rock rip-rap to greater wave attack and exacerbate the seasonally eroded beach condition. With an increase in seasonal erosion, the subject beach will experience accelerated scour and also accrete at a slower rate. However, the removal of the existing rock and concrete seawall on the beach will reduce the scour effects on the beach in the near term. In the long term the proposed rock rip-rap slope protection will be acted by wave action and will at times result in localized scour of the beach. Therefore, the Commission finds that the proposed

---

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

6 Coastal Sediments '87.

rock rip-rap over time will result in potential adverse effects to beach sand supply resulting in increased seasonal erosion of the beach and longer periods for the beach to rebuild.

**b. Shoreline Protective Devices Fix the Location of the Backshore**

It is generally agreed that where a beach is eroding, the erection of a shoreline protective structure will eventually define the boundary between the sea and the upland. This result can be best explained as follows: on an eroding shoreline fronted by a beach, a beach will be present as long as some sand is supplied to the shoreline. As erosion proceeds, the entire profile of the beach retreats. A shoreline protective device will halt the landward retreat of the backshore, but will not alter the landward retreat of the rest of the shore profile. The beach and nearshore sediment will continue to move landward. Eventually, the dry beach will disappear in front of the revetment or seawall and the structure will protrude into the ocean with the mean high tide line fixed at the base of the structure. Such a loss of beach has been called passive erosion; however, in the case of an eroding shoreline this represents the loss of a beach as a direct result of the shoreline protective device.

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

*Seawalls inhibit erosion that naturally occurs and sustains the beach. The two most important aspects of beach behavior are changes in width and changes in the position of the beach. On narrow, natural beaches, the retreat of the back beach, and hence the beach itself, is the most important element in sustaining the width of the beach over a long time period. Narrow beaches, typical of most of the California coast, do not provide enough sacrificial sand during storms to provide protection against scour caused by breaking waves at the back beach line. This is the reason the back boundary of our beaches retreats during storms.<sup>7</sup>*

Dr. Everts further concludes that armoring in the form of a shoreline protection device interrupts the natural process of beach retreat during a storm event and that, "a beach with a fixed landward boundary is not maintained on a recessional coast because the beach can no longer retreat."

**c. Retention of Potential Beach Material**

A shoreline protective device's retention of potential beach material inherently impacts shoreline processes. One of the main functions of a bulkhead or revetment is upland stabilization -- to protect backshore development from wave action and bluff retreat. In the case of Big Rock Beach the back of the beach is fixed at the highway fill and existing revetment and seawalls.

---

<sup>7</sup> Letter Report dated March 14, 1994 to Coastal Commission staff member and engineer Lesley Ewing from Dr. Craig Everts, Moffatt and Nichol Engineers.

The main sources of sediment for California beaches are bluffs and material that has eroded from inland sources and is carried to the beach by coastal streams<sup>8</sup>. The National Academy of Sciences found that retention of material behind a shoreline protective device may be linked to increased loss of material in front of the wall. The net effect is documented in "Responding to Changes in Sea Level, Engineering Implications" which provides :

*A common result of sea wall and bulkhead placement along the open coastline is the loss of the beach fronting the structure. This phenomenon, however, is not well understood. It appears that during a storm the volume of sand eroded at the base of a sea wall is nearly equivalent to the volume of upland erosion prevented by the sea wall. Thus, the offshore profile has a certain "demand" for sand and this is "satisfied" by erosion of the upland on a natural beach or as close as possible to the natural area of erosion on an armored shoreline...*<sup>9</sup>

#### 4. Sea Level Rise

Sea level has been rising slightly for many years. In the Santa Monica Bay area, the historic rate of sea level rise has been 1.8 mm/yr. or about 7 inches per century<sup>10</sup>. Sea level rise is expected to increase by 8 to 12 inches in the 21<sup>st</sup> century.<sup>11</sup> There is a growing body of evidence that there has been a slight increase in global temperature and that an accelerated rate of sea level rise can be expected to accompany this increase in temperature. Mean water level affects shoreline erosion in several ways and an increase in the average sea level will exacerbate shoreline erosion.

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

Accompanying this rise in sea level will be increased wave heights and wave energy. Along much of the California coast, ocean bottom depth controls nearshore wave heights, with bigger waves occurring in deeper water. Since wave energy increases with the square of the wave height, a small increase in wave height can cause a significant increase in wave energy and wave damage.<sup>12</sup> So, combined with a physical increase in water elevation, a small rise in sea

---

<sup>8</sup> Dr. Douglas Inman, Nearshore Processes, Encyclopedia of Science and Technology, 3<sup>rd</sup> Edition, McGraw-Hill Book Company, 1971

<sup>9</sup> National Academy of Sciences, Responding to Changes in Sea Level: Engineering Implications, National Academy Press, Washington D.C., 1987, page 74.

<sup>10</sup> Hicks, Steacy D. and Leonard E. Hickman, Jr. (1988) United States Sea Level Variations Through 1986. Shore and Beach, Vol. 56, no. 3, 3 - 7.

<sup>11</sup> Field et. al., Union of Concerned Scientists and the Ecological Society of America (November 1999) Confronting Climate Change in California, [www.ucsusa.org](http://www.ucsusa.org).

<sup>12</sup> Dean, Robert G. and Robert Dalrymple (1984) Water Wave Mechanics for Engineers and Scientists, Prentice-Hall, Inc. New Jersey.



level can expose areas that are already exposed to wave attack to more frequent wave attack with higher wave forces.

Therefore, if new development along the shoreline is to be found consistent with the Coastal Act, the most landward location must be explored to minimize wave attack with higher wave forces as the level of the sea rises over time. Shoreline protective devices must also be located as far landward as feasible to protect public access along the beach.

In this case the applicant is proposing to remove an existing rock and concrete seawall that extends across the entire property. The removal of the existing protective structure will in the short term reduce erosion and scour impacts on this beach. The proposed rock slope protection fronting the outlet structure is located on the back beach and surrounds the outlet structure only thereby minimizing the footprint of the protective structure and encroachment onto the beach. However, the proposed rip-rap is within the wave up-rush zone and will be subject to wave action during tide tides and storm conditions which will result in some localized seasonal scour and erosion of the beach. In addition, in response to staff's request to explore alternative designs to the proposed rip-rap slope protection that would minimize encroachment onto the beach the applicant has proposed to redesign the rock rip-rap slope protection.

The applicant, in consultation with the Commission's coastal engineer, Lesley Ewing, has proposed a revised slope protection design that would pull the rip-rap landward 4.92 feet (1.5 meters) and has agreed to arrange the placement of the rip-rap in such a manner that it provides a relatively flat surface that will not impair lateral access along the beach. Removal of the rock slope protection entirely was not feasible alternative because of the scour and erosion effects on the beach from high velocity flood flows through the culvert. The existing cobble/sand beach would be scoured from these flood flows and endanger adjacent residences as well as erode and scour the beach adversely impacting lateral access. Therefore, the revised rip-rap design is the alternative that minimizes encroachment onto the beach and does not result in a significant adverse impact on lateral access along the beach. However, the applicant did not submit detailed plans that illustrate the proposed revised design for the rock rip-rap slope protection. Therefore, the Commission finds that it is necessary to require the applicant to submit revised plans consistent with above mentioned design criteria and as outlined in Special Condition 8. As conditioned, the Commission finds that the proposed project is consistent with Sections 30235, 30250, and 30253 of the Coastal Act.

### **C. Public Access and Recreation**

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

Coastal Act Section 30210 states that:

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

Coastal Act Section 30211 states:

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

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

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

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

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

The major access issue in this permit application is the potential adverse impacts of the proposed drainage outlet velocity reduction device (rip-rap and concrete) on public access in contradiction of Coastal Act policies 30210, 30211 and 30212. The proposed project is located on Big Rock Beach approximately 900 ft. east (down coast) of the nearest vertical public coastal access-way at 20000 Pacific coast Highway. Further, there are several lateral public access easements offers located up and down the coast on beachfront parcels along Pacific Coast Highway. There are parcels with existing lateral access ways to the west of the project location at 19906, and 19922, and there is one potential lateral access way at 19950 PCH. The nearest existing lateral access ways east of the project are located 10, 12, 14 and 22 lots away. There is an existing City of Los Angeles bus stop immediately adjacent to the subject parcel, allowing for alternative transportation to this beach .

The project site is shown in Exhibit 1, page 1. It is located on Malibu City Beach at the east end of Big Rock Beach. East of the site is Las Tunas County Beach. All of these beaches are on the north shore of Santa Monica Bay. In general they are aligned in the east-west direction. The beaches are bound on the north side by residential homes and the Pacific Coast

Highway. At the project location, the beach alignment is facing approximately southwest to northeast. The existing sandy beach is narrow and steep. The beach is approximately 40 feet wide and the slope is approximately 1:3 to 1:5 (V:H). There are reefs on the seaward side of the beach, which provides some limited protection to the existing beach from ocean waves.

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

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

Consequently, the position of the mean high tide line fluctuates seasonally as high wave energy (usually but not necessarily) in the winter months causes the mean high tide line to move landward through erosion, and as milder wave conditions (generally associated with the summer) cause the mean high tide line to move seaward through accretion. In addition to ordinary seasonal changes, the location of the mean high tide line is affected by long term changes such as sea level rise and diminution of sand supply. In this locale there is considerable variation of beach width due to seasonal fluctuations of sand on the beaches and there is also varying access along the beach in this location due to tidal fluctuation.

The Commission must consider a project's direct and indirect effect on public tidelands. To protect public tidelands when beachfront development is proposed, the Commission must consider (1) whether the development or some portion of it will encroach on public tidelands (i.e., will the development be located below the mean high tide line as it may exist at some point throughout the year) and (2) if not located on tidelands, whether the development will indirectly affect tidelands by causing physical impacts to tidelands. In the case of the proposed project, the State Lands Commission indicated in a letter to Cal Trans that the proposed rock slope protection will be located at or near the elevation of mean high tide and therefore may encroach onto State Tide Lands. Cal Trans has submitted plans that illustrated the proposed structure is located above a surveyed high water mark which is mean of the two higher high tides in a daily tidal cycle. Therefore, it is not likely that the project intrudes into State Tide Lands. In addition, Caltrans has agreed to pull the rock rip-rap slope protection back 1.5 meters to minimize encroachment of the rip-rap onto the beach. In order to ensure the project as redesigned has

been reviewed and approved by the State Lands Commission the Commission finds the applicant shall obtain approval for the project from the State Lands Commission as required by Special Condition 9.

Although the proposed structure is located above the mean high water mark and mean high tides line it may have an adverse effect on shoreline processes as wave energy reflected by the structure contributing to erosion and steepening of the shoreline profile, and ultimately to the extent and availability of tidelands. That is why the Commission also must consider whether the project will have indirect effects on public ownership and public use of shorelands.

Public use rights of the beach are implicated as the public walks the wet or dry sandy beach below the mean high tide plane. This area of use, in turn moves across the face of the beach as the beach changes in depth on a daily basis. The free movement of sand on the beach is an integral part of this process, and it is here that the effects of shoreline structures are of concern.

Development of this project as planned and conditioned in this staff report will provide for removal of an existing small rock and concrete seawall at the base of the bluff and an increase of access to the coastal portion of the parcel located at 19900 PCH. The applicant has agreed to relocate the rock rip-rap in front of the culvert outlet (Exhibit 1, page 5) 4.92 feet (1.5 meters) further landward from the original design. This will serve to move the seaward encroachment of the structure further inland from the existing seawall location. In addition the applicant has agreed to place the seaward-most 4.92 feet of two ton rip rap in a such a manner as to provide a flat , even surface providing for a surface suitable to walk across and improved access to the beach in this area. These measures will provide for the removal of a lateral access impediment and also remove a contributor to erosion and scour on the beach. For the reasons listed here, this project as redesigned will not result in a significant adverse impact to access and is therefore consistent with the access policies of the Coastal Act.

The applicant is proposing to install a publicly accessible vista point with a walking trail, native vegetation, two park benches and a fence at the edge of the bluff with handicap accessible viewpoints as part of this project at 19900 PCH. There is an existing municipal bus stop adjacent to the north east corner of this lot as well. The applicant has agreed to provide a bus stop bench for use at this location. There is a stop light immediately to the east of 19900 PCH and a cross walk leading from Big Rock Drive. Staff finds that the establishment of this vista point, and the implementation of these design features will provide a new coastal access overlook with pedestrian friendly access. The existence of the bus stop also provides for an alternative transportation method of accessing the coast. Special Condition 1 details the specifics of the applicant's agreement to provide this public passive recreational area.

Further, in order to implement and carry out the requirements of Special Condition number one (1) the project applicant has agreed to make available a seventeen (17) foot wide corridor along the eastern edge of the property currently designated as APN 4450-001-039 for a public agency or private association to develop a future stairway/access way from the bluff top to the beach, and to install coastal signage on PCH to the east and west of this locations as well as to the east and west of the nearest existing vertical access way at 20000 PCH, west of the project.

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

**D. ENVIRONMENTALLY SENSITIVE HABITAT AREA (ESHA)**

Section 30230 of the Coastal Act states:

*Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economical significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.*

Section 30231 of the Coastal Act states:

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

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 those resources shall be allowed within those 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 those areas, and shall be compatible with the continuance of those habitat and recreation areas.*

The proposed drain inlet expansion at 19901 PCH is located a few meters above sea level in Malibu. The inlet site covers the lower portion of a steep canyon adjacent to Pacific Coast Highway. This area is fed by drainage from Piedra Canyon above. The streambed adjacent to the drain inlet contains mulefat, rabbitfoot grass, willow saplings, and cattails. On the sides of the channel there are ruderal upland species including castor bean, tobacco tree and mustard. Cliff aster, fennel and laurel sumac are visible on the less disturbed slopes in the project area. Research on the California Department of Fish and Game's Natural Diversity Database listed several sensitive species and communities in the Topanga quadrangle within which this project is located. Species of note are the Santa Monica shieldback katydid, globose dune beetle, and the monarch butterfly. Of these, the katydid is listed as existing at Big Rock Drive and PCH, while the others are merely listed nearby. No sensitive bird or plant species were listed in the project area.

The parcel at 19900 PCH where the proposed drainage pipe and outlet are located ranges from a few meters above sea level to approximately the two meters above the mean high tide line. This lot is isolated from nearby vegetation and was formerly covered by a single-family residence although it is vacant at the present. This lot contains ruderal species such as cliff aster and tree tobacco as well as non-native grasses. There is no evidence of sensitive plant, insect, or bird species at this location.

Piedra Gorda Creek meets the CDFG definition of a stream under Section 1601 of the Fish and Game code and the US Army Corps of Engineers definition of an intermittent stream. A 1601 permit has been obtained for this project (Exhibit 4), a 401 certification for a 404 permit has been applied for and a 404 permit is pending for this project. Special Condition Number 8(3) requires that proof of issuance of a 404 permit is required prior to commencement of construction activities on this project.

This project will result in the permanent loss of 188.4 square feet (17.5 square meters) of riparian habitat and the temporary disturbance of 223 square feet (68 square meters) of riparian vegetation. In addition there will be approximately 221 square feet (67.5 square meters) of permanently lost upland vegetation and 458 square feet (139.5 square meters) of temporary upland vegetation loss. Through past permit actions the Commission has consistently required that the permanent loss of riparian vegetation be replaced at a ratio of 3:1. As noted above, 188 square feet of riparian vegetation will be permanently lost as a result of the project. The applicant has identified a potential mitigation site for riparian restoration within the Piedra Gorda watershed.

Special Condition Number four (4) requires the applicant to submit a detailed riparian mitigation plan that provides for replacement of the permanently lost riparian habitat at a ratio of three to one. This condition also stipulates that mitigation for this lost riparian habitat must be conducted in the Piedra Gorda watershed as close as possible to the area of impact. In addition, Special Condition four (4) requires the replanting of riparian and upland areas that will be temporarily disturbed as a result project with appropriate native riparian and upland vegetation.

Disturbance of the soils at the inlet site, on PCH, at the bluff face, removing the existing seawall and concrete structure on the bluff, and excavating for the mouth of the outlet will require considerable temporary disruption of soils. To ensure that no soils or silts are able to migrate off of the site into adjacent storm drains, onto the beach, or be tracked off site by vehicles, Special Condition number three (3) requires that the applicant submit an erosion control plan listing BMP's to alleviate any migration of soils or erosion, to implement BMP's during construction, to implement BMP's at the end of each work day, and to implement BMP's to stabilize soils and silt on site in the event of an extended work stoppage.

Plantings at 19900 PCH at the proposed vista point will consist of native plants and grasses consistent with the habitat of the parent area. This lot is not contiguous with the Piedra Gorda canyon habitat, being separated from the rest of the project by Pacific Coast Highway, but will provide for approximately 1300 square feet (395 square meters) of revegetation with native plants.

The Commission finds, that as conditioned above, the proposed project is consistent with Sections 30230, 30231 and 30240 of the Coastal Act.

### E. Hazards

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

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

The applicant proposes to increase the capacity of an existing culvert inlet receiving storm waters from Peidra Gorda Canyon via the addition of a new adjacent culvert outletting at a different location along the Malibu coast three parcels, or approximately 200 feet south of the existing culvert outlet. This project will include grading and revegetation at the location of the existing drain inlet as well as at the parcel that the new culvert will be located on and the bluff slope that the outlet egresses from. The existing culvert inlet will be expanded to include a new inlet.

The Commission finds that construction of this new drainage culvert, when added to the drainage capacity of the new culvert, will increase the storm water carrying capacity of the culverts from approximately 780 cubic feet per second (cfs) to 2180 cfs, almost tripling the total carrying capacity of this drainage system. Since this project is being conducted by Caltrans to satisfy the requirement of a legal settlement filed in response to damages incurred during failure of the existing culvert system and flooding at 19912 PCH in 1994 and 1995, staff finds that there will be no increase, and a potential decrease, in flooding hazards in this area.

The Commission also finds that the minimization of site erosion will add to the stability of the site. Erosion can best be minimized by requiring the applicant to revegetate all graded and disturbed areas of the site with native plants, compatible with the surrounding environment. Thus, Special Conditions Two (2) and Three (3) have been required to ensure that all proposed graded and disturbed areas are stabilized, vegetated and provided adequate erosion control measures.

As discussed above, the proposed development will serve to minimize flooding and erosion in this area. However, the Commission's experience with beach front development in the Malibu area indicates that there are numerous hazards inherent with development along the beach and at the Highway shoulder. The Malibu coast has historically been subject to substantial damage as the result of storm and flood occurrences--most recently, and perhaps most dramatically, during the 1998 severe El Nino winter storm season. As is evident by the damage caused to the existing bulkhead, the subject site is clearly susceptible to flooding, wave damage from waves, storm waves, bluff retreat, erosion, liquefaction and earth movement.

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

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

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

The Commission finds that due to the possibility of flooding, wave damage from waves, storm waves, earth movement, and erosion, the applicant shall assume these risks as conditions of approval. Because this risk of harm cannot be completely eliminated, the Commission requires the applicant to waive any claim of liability against the Commission for damage to life or property which may occur as a result of the permitted development. The applicant's assumption of risk, as required by Special Condition Number ten (10), when executed as an agreement, will show that the applicant is aware of and appreciates the nature of the hazards which exist on the site, and that may adversely affect the stability or safety of the proposed development and surrounding area.

The Commission further notes that construction activity near a sandy beach and at the landward extent of the beach, such as the proposed project, will result in the potential generation of debris and or presence of equipment and materials that could be subject to tidal action. The presence of construction equipment, building materials, and excavated materials on the subject site could pose hazards to beachgoers or swimmers if construction site materials were discharged into the marine environment or left inappropriately/unsafely exposed on the project site. In addition, such discharge to the marine environment would result in adverse effects to offshore habitat from increased turbidity caused by erosion and siltation of coastal waters. Further, any excavated materials that are placed in stockpiles are subject to increased erosion. Therefore, Special Condition Numbers 5 and 6 requires the applicant to ensure that stockpiling of dirt or materials shall not occur on the beach, excess excavated material is removed from the site, that no machinery will be allowed in the intertidal zone at any time, all debris resulting from the construction period is promptly removed from the sandy beach area, all grading shall be properly covered, and that sand bags and/or ditches shall be used to prevent runoff and siltation.

Construction of the drainage inlet structure, reinforced concrete box (RCB) culvert under PCH, the drain outlet structure, and velocity dissipator and rip rap will involve considerable alteration of the areas impacted and will present potential hazards to the areas in question. Installation of the inlet structure will involve excavation and removal of debris and soil and installation of a concrete box culvert opening and concrete apron approaching the inlet. Installation of the RCB culvert under PCH will include excavation of PCH, installation of the RCB and installation of



structural support requisite to support PCH over the culvert. Installation of the outlet structure, velocity dissipator and rip rap will involve partial excavation of the lot at 19900 PCH, replacement of the bluff face, reinforcement of the outlet structure and placement of the dissipator and rip rap. All of these structures are designed to accommodate high velocity and high capacity flows through the culvert and wave up rush along the shore. Any and all of these conditions have the potential to put the entire facility at some risk of failure and /or need of repair.

Special Condition seven (7) provides that with acceptance of this permit, the applicant agrees that should any of the project's surface or subsurface drainage structures, recreation facilities, or slope stabilization structures fail or result in erosion, the applicant/landowner or successor-in-interest shall be responsible for any necessary repairs or restoration to these structures or facilities and/or repair or restoration of the eroded area(s). Should repairs or restoration become necessary, prior to the commencement of such repair or restoration work, the applicant shall submit a repair and restoration plan to the Executive Director to determine if an amendment or new coastal development permit is required to authorize such work.

Therefore, for the reasons discussed above, the Commission finds that the proposed project, as conditioned, is consistent with Section 30253 of the Coastal Act.

#### **F. Visual Resources**

Section 30251 of the Coastal Act requires that visual qualities of coastal areas shall be considered and protected, landform alteration shall be minimized, and where feasible, degraded areas shall be enhanced and restored.

Section 30251 of the Coastal Act states that:

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

Prior to acquisition of this parcel by Caltrans there was a coastal development permit application submitted by the previous owner for a single-family residence at 19900 PCH. If a residential structure had been constructed at this location the blue water views across the site would have been for the most part eliminated. This section of the coast is characterized by a long almost continuous line of residential development along the coast which completely block views of the ocean from Pacific Coast Highway. This project will create a visual break in this long line of residential development and provide views of the coast and ocean from Pacific Coast Highway. The proposed public vista point and improvements to the site will provide the public a site with unobstructed views of the coast and ocean at Big Rock Beach. By providing for a bluff top vista point and visual access to the near shore as well as providing for future

installation of a stairway substantially improves the visual qualities of this parcel and the surrounding roadways and properties provided with enhanced views of the coast and ocean and would meet the requirements of Special Condition Number One (1).

Therefore, for the reasons discussed above, the Commission finds that the proposed project, as conditioned, is consistent with Section 30251 of the Coastal Act.

#### **G. Local Coastal Program**

Section 30604 of the Coastal Act states:

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

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

#### **H. CEQA**

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

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

INDEX OF SHEETS

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

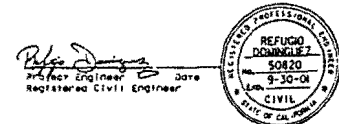
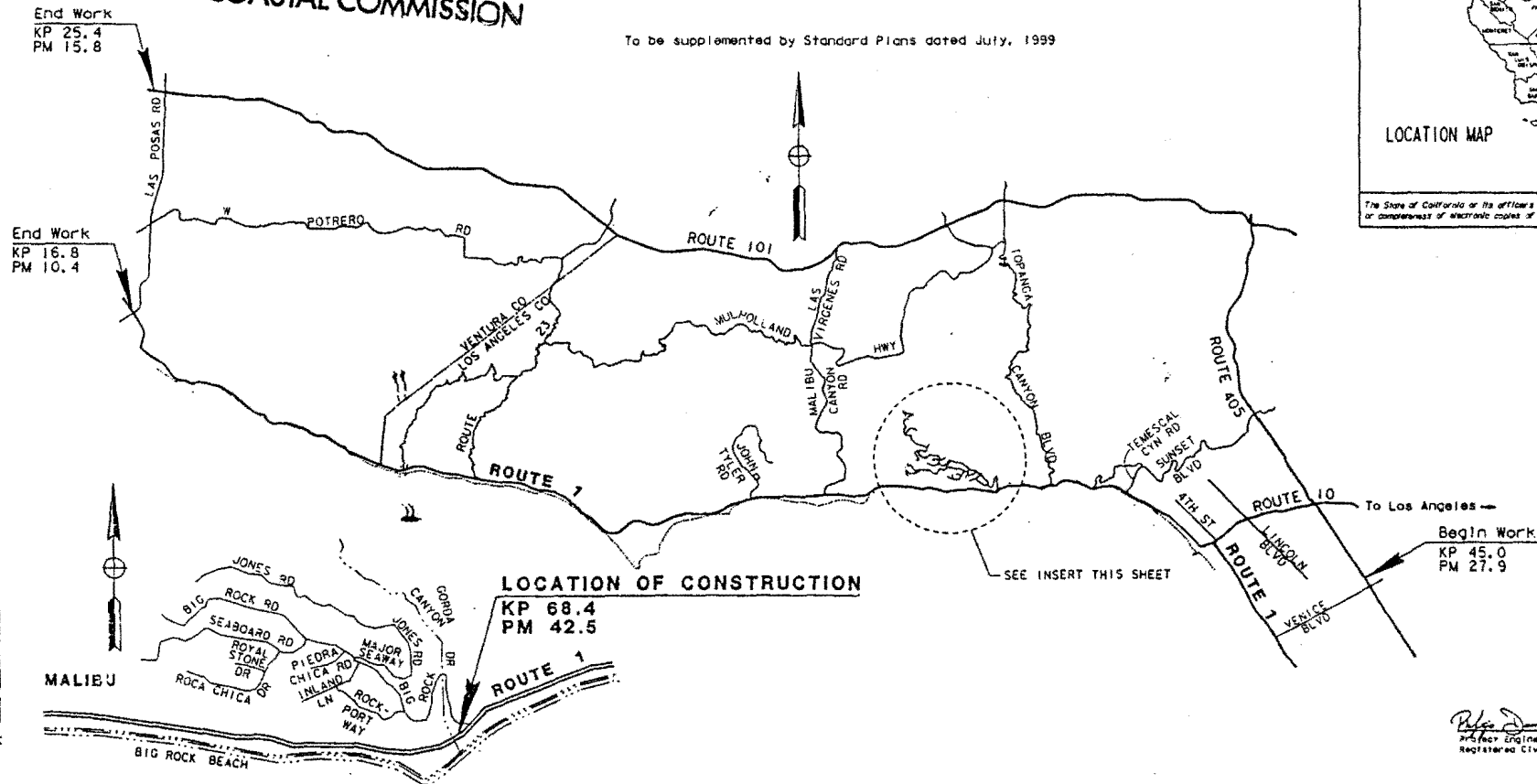
**RECEIVED**  
South Coast Region

JAN 17 2002

CALIFORNIA  
COASTAL COMMISSION

PROJECT PLANS FOR CONSTRUCTION ON  
**STATE HIGHWAY**  
IN LOS ANGELES COUNTY  
IN MALIBU  
AT PIEDRA GORDA CANYON

To be supplemented by Standard Plans dated July, 1999



Plans Approval Date

Contract No. 07-1X1404

CU 07279 EA 1X1401

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS



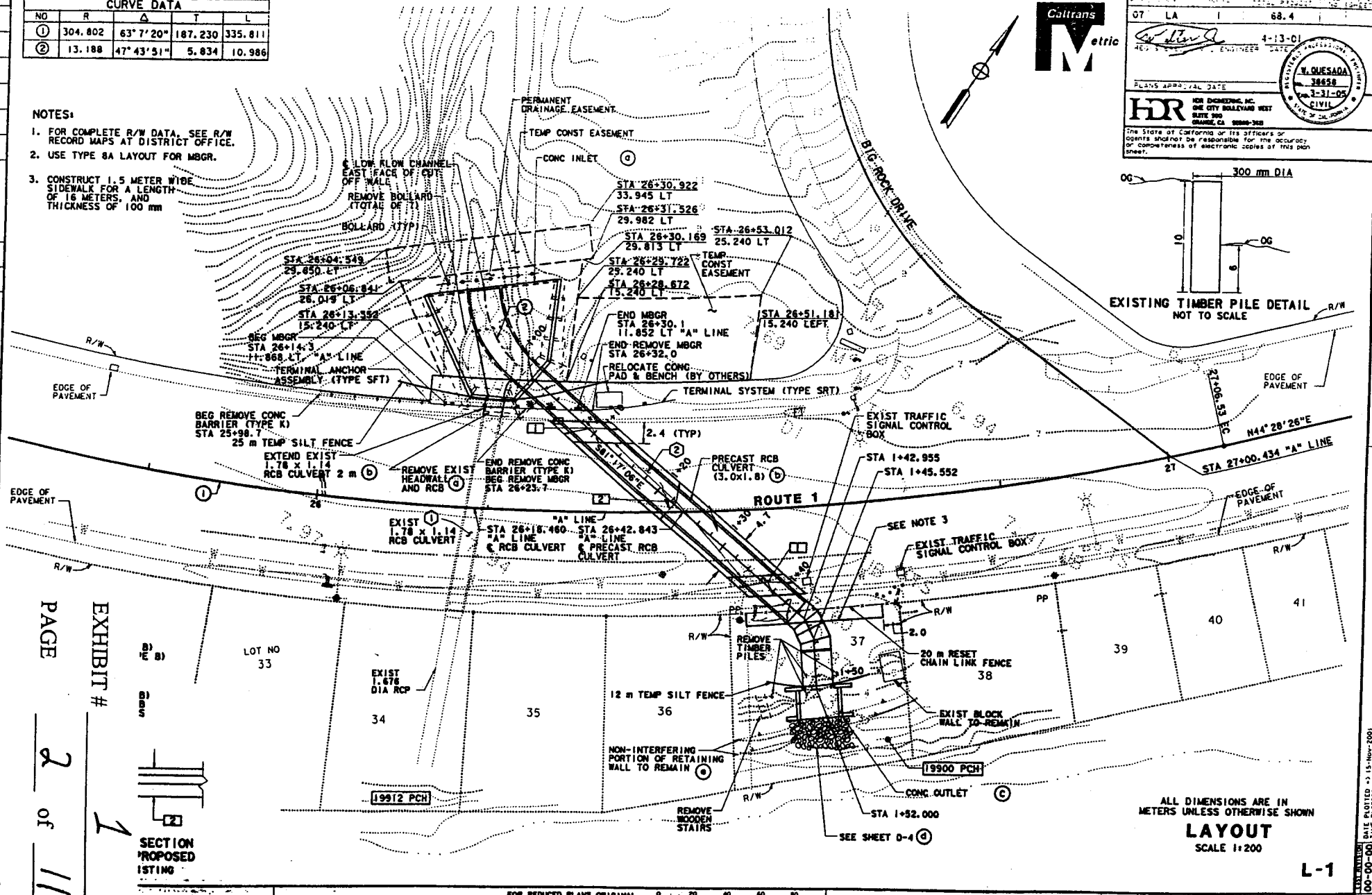
USCINVEST - 13 USCINVEST  
SOP FILE - 13 USCINVEST

PAGE 1 of 11  
EXHIBIT # 1

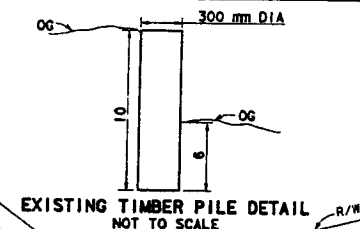
CURVE DATA				
NO	R	Δ	T	L
①	304.802	63° 7' 20"	187.230	335.811
②	13.188	47° 43' 51"	5.834	10.986

# NOTES:

- FOR COMPLETE R/W DATA, SEE R/W RECORD MAPS AT DISTRICT OFFICE.
- USE TYPE 8A LAYOUT FOR MBGR.
- CONSTRUCT 1.5 METER WIDE SIDEWALK FOR A LENGTH OF 16 METERS, AND THICKNESS OF 100 mm



07	LA	68.4
		4-13-01
V. QUESADA 38658 3-31-05 CIVIL		PLANS APPROVAL DATE 4-13-01
HR THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.		



DESIGN OVERSIGHT  
REFUGIO DOMINGUEZ  
CHECKED BY  
DATE  
REVISOR  
DATE  
CALCULATED/DESIGNED BY  
CHECKED BY  
DATE  
REVISOR  
DATE

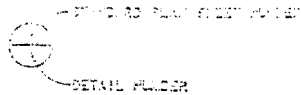
PAGE 2 of 11  
EXHIBIT # 1

SECTION PROPOSED  
EXISTING

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN  
**LAYOUT**  
SCALE 1:200

L-1

**LEGEND:**

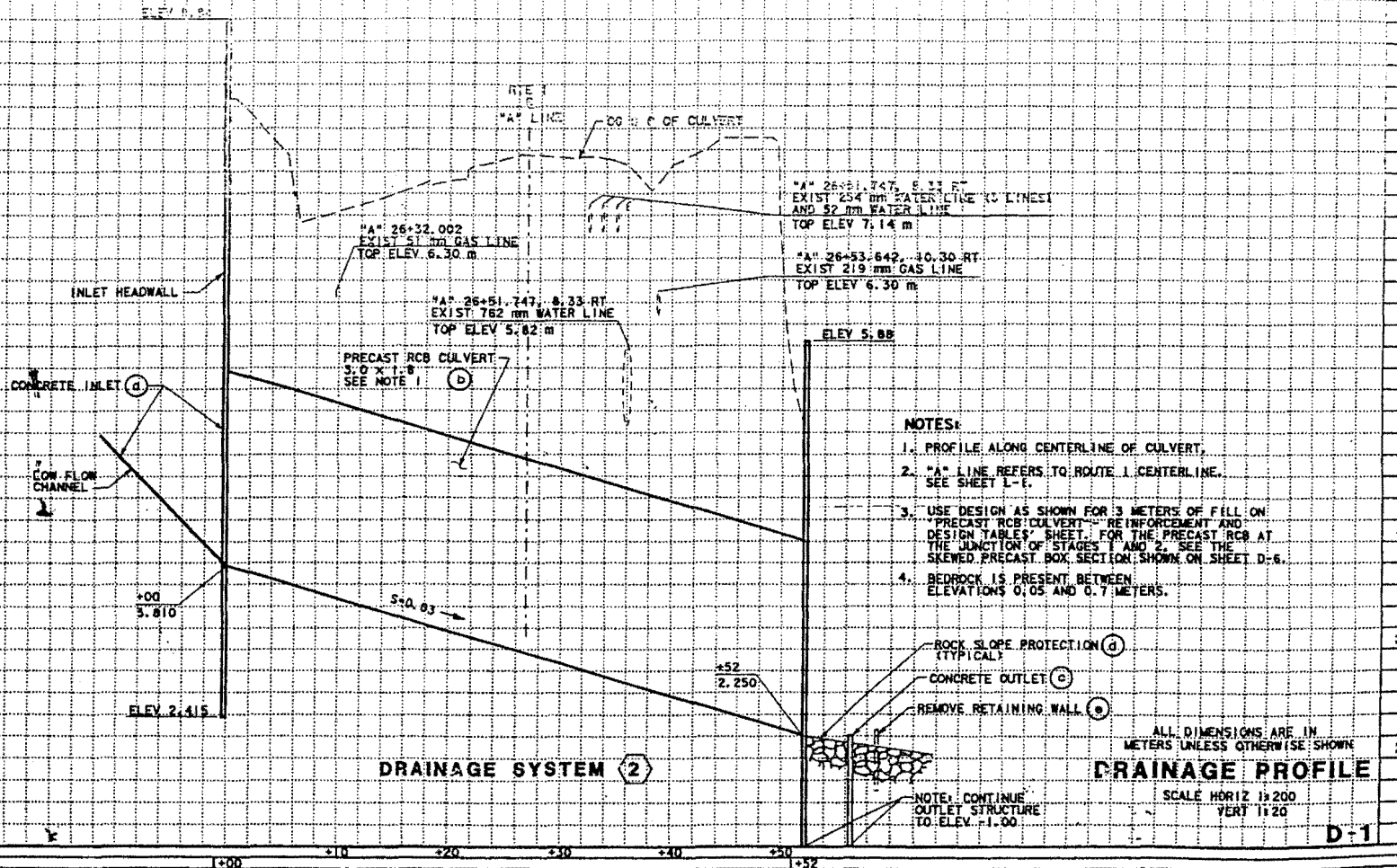


THIS PLAN ACCURATE FOR DRAINAGE ONLY

SCALE 1:200

DATE	3-21-05
BY	CU
CHECKED BY	CU
DESIGNED BY	CU
REVISIONS	

THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION  
 COUNTY OF CALIFORNIA  
 PROJECT NO. 07279  
 SHEET NO. 11



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

DESIGN OVERSIGHT  
 REFUGIO DOMINQUEZ

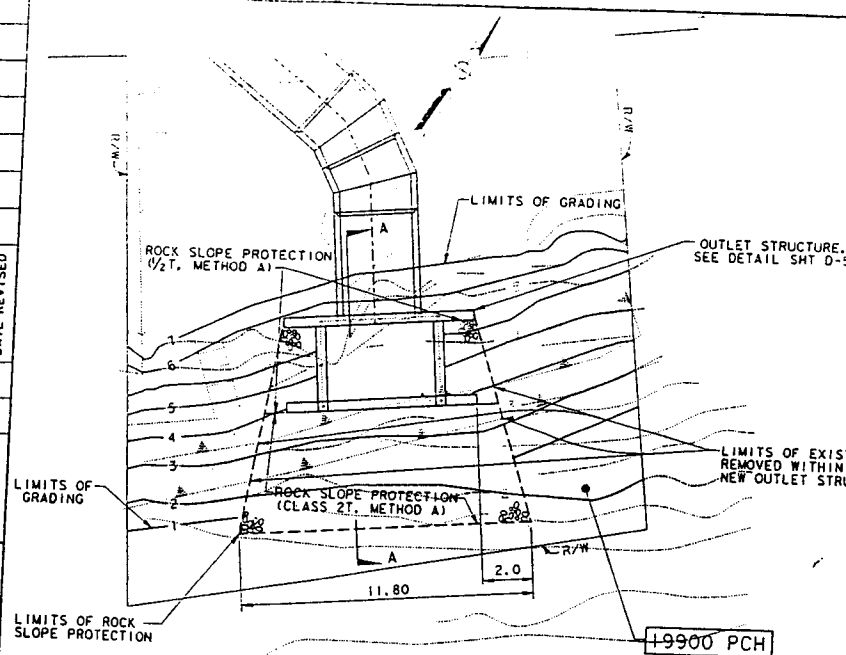
CALCULATED/DESIGNED BY  
 CHECKED BY

REVISIONS  
 DATE  
 REVISOR

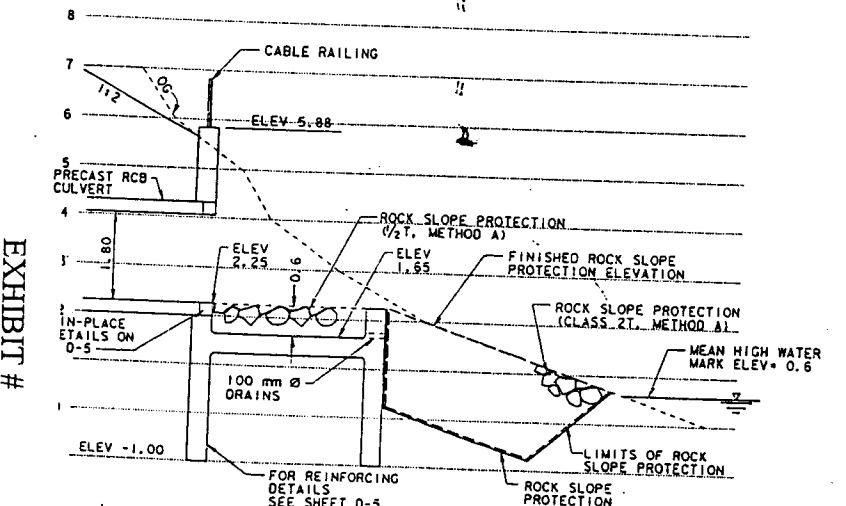
PAGE 3 of 11  
 EXHIBIT # 1



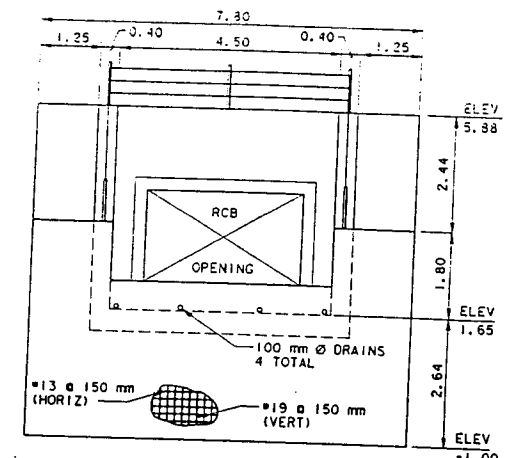
DESIGN OVERSIGHT  
 REFUGIO DOMINGUEZ  
 NO. 11/15/2001  
 PAGE 5 of 11  
 EXHIBIT # 7



**PLAN - OUTLET STRUCTURE**  
 SCALE 1:100

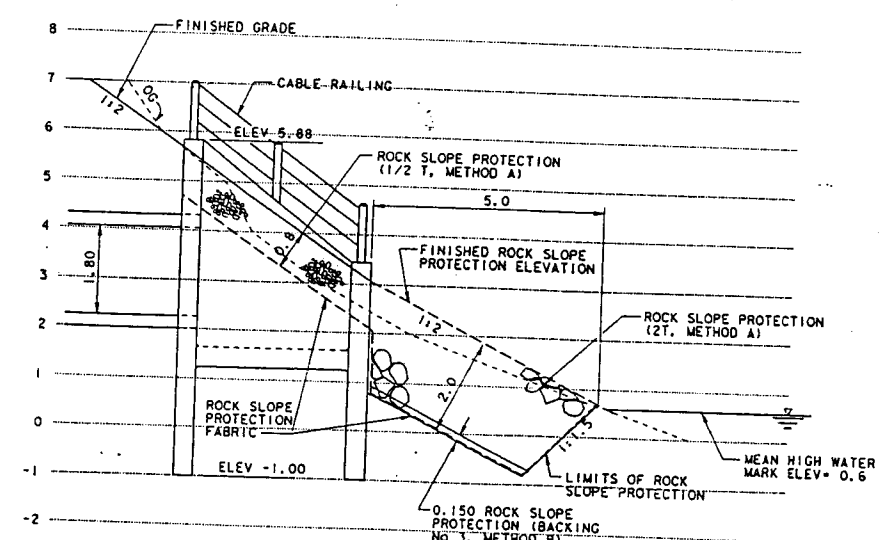


**SECTION A-A**  
 SCALE 1:50



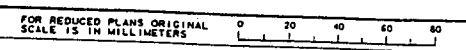
**FRONT ELEVATION - OUTLET STRUCTURE**  
 SCALE 1:50

NOTE:  
 ROCK SLOPE PROTECTION NOT SHOWN FOR CLARITY.



**SIDE ELEVATION - OUTLET STRUCTURE**  
 SCALE 1:50

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN



USERNAME: 33 AR00104  
 DGN FILE: 3311140104.dgn

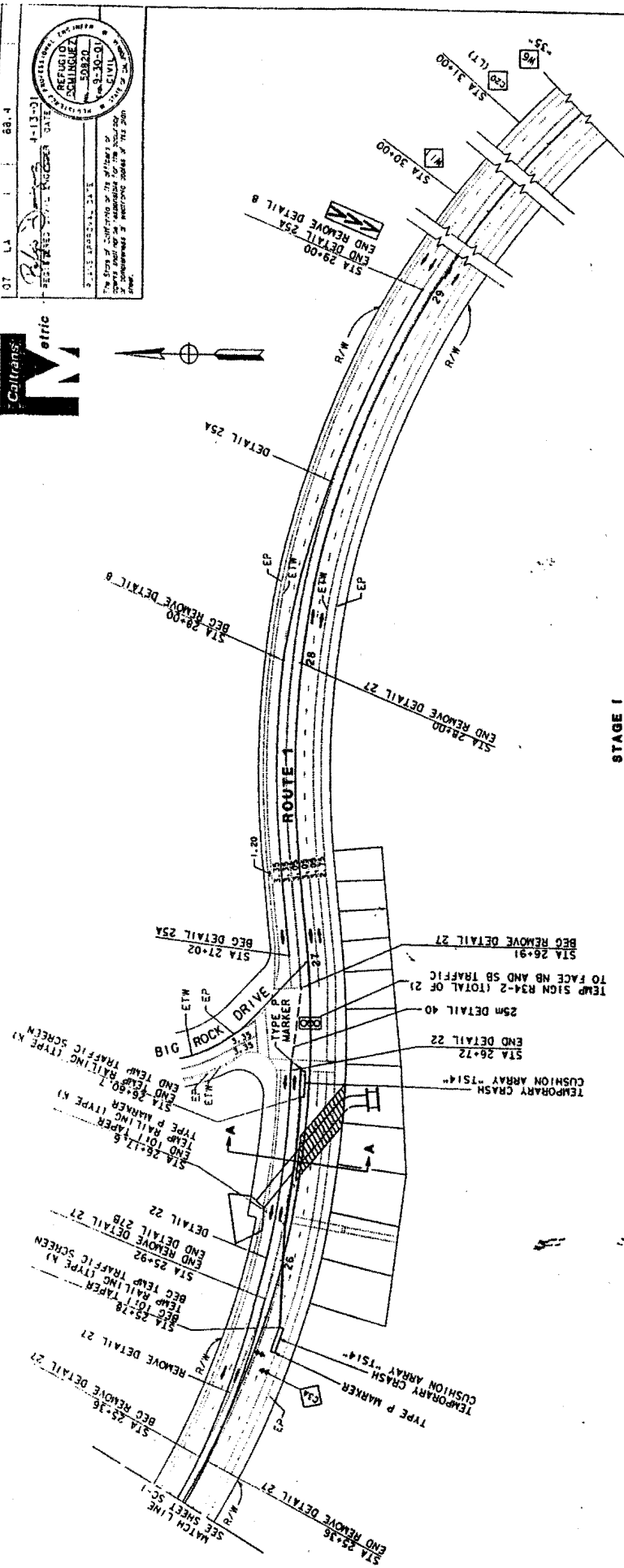
CU 07279

EA 1X1401

01 ST. COUNTY ROUTE 153.4  
 07 LA 1 53.4  
 4-13-01  
 RES. SCORED CIVIL ENGINEER DATE  
 A. CAMPBELL  
 43834  
 5-30-01  
 CIVIL  
 STATE OF CALIFORNIA  
 H.R. ENGINEERING, INC.  
 ONE CITY BOULEVARD WEST  
 SUITE 300  
 ORANGE, CA 92668-3620  
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

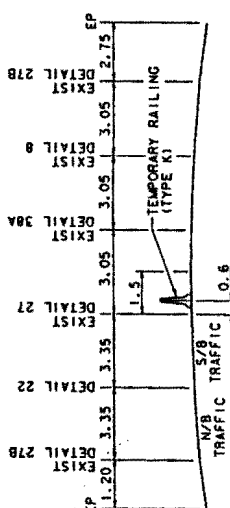
**DRAINAGE DETAILS**  
 SCALE AS SHOWN

**D-4**



## STAGE 1

**TYPICAL SECTION A-A**



**STAGE CONSTRUCTION  
TRAFFIC HANDLING**  
NO SCALE

ALL DIMENSIONS ARE IN  
METERS UNLESS OTHERWISE SHOWN

THIS PLAN ACCURATE FOR STAGE CONSTRUCTION ONLY.

TE R/W DATA. SEE R/W  
S AT DISTRICT OFFICE.

EXHIBIT #

PAGE

6 of 11

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION										REFUGIO DOMINGUEZ									
DESIGN OVERSIGHT										CALCULATED BY		CHECKED BY		DATE		REVISBY BY		DATE REVISED	



**STAGE CONSTRUCTION  
TRAFFIC HANDLING**

NO SCALE

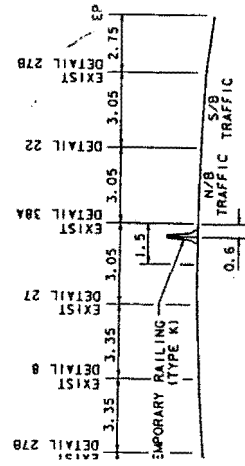
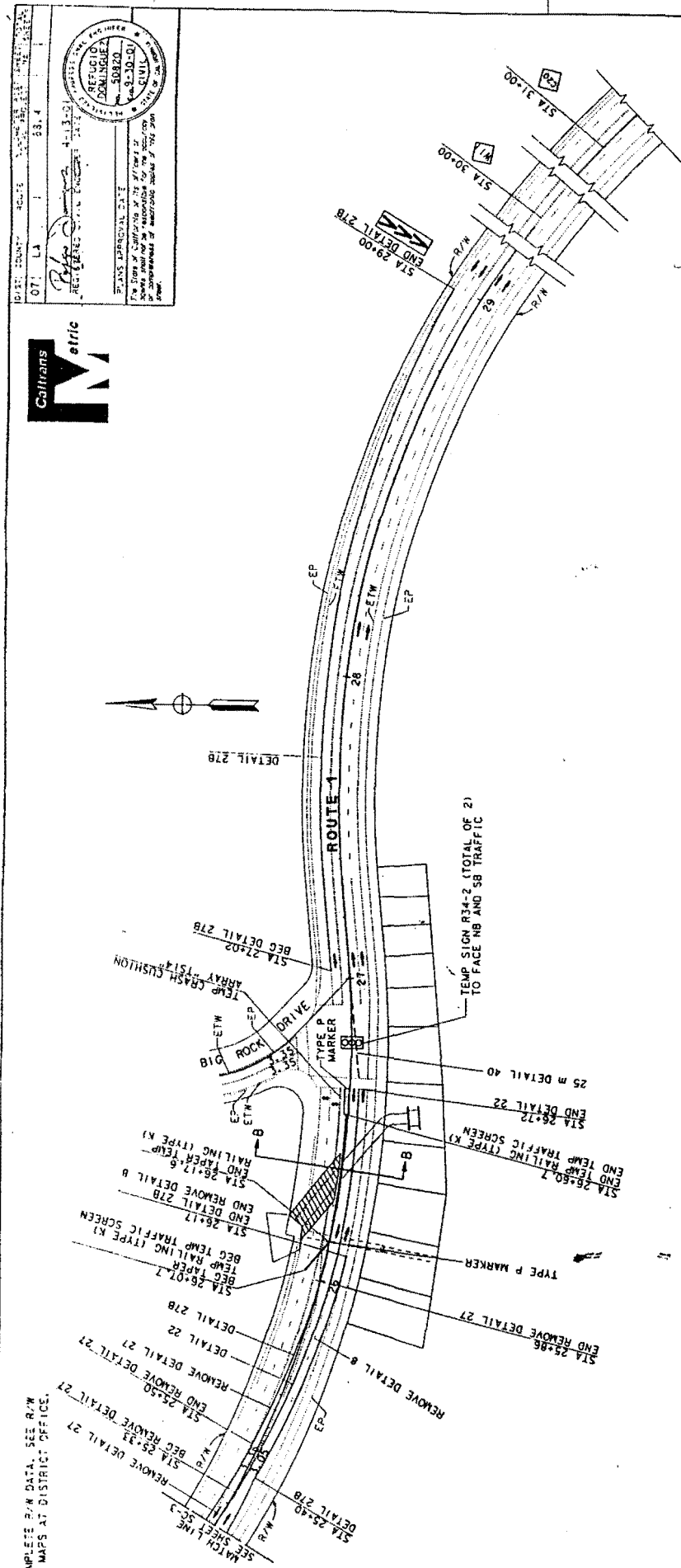
ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

THIS PLAN ACCURATE FOR STAGE CONSTRUCTION ONLY.

FOR REDUCED PLANS ORIGINAL  
SCALE IS IN MILLIMETERS

CU 07279

EA 1X1401



**TYPICAL SECTION B-B**

## STAGE II

EXHIBIT #

PAGE

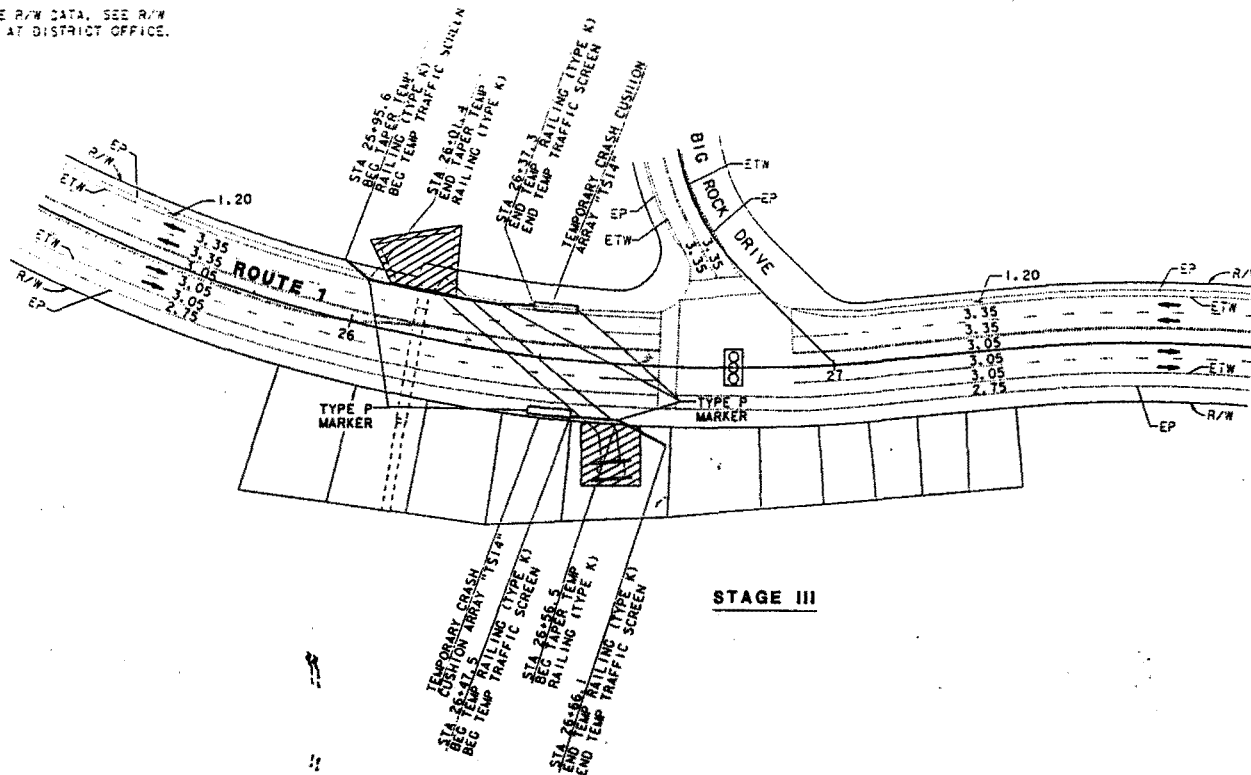
7

of

11

[illegible]

FOR COMPLETE R/W DATA, SEE R/W  
RECORD MAPS AT DISTRICT OFFICE.



STAGE	TEMP RAILING (TYPE K)	TEMP TRAFFIC SCREEN	TEMP CRASH CUSHION MODULE	TYPE P MARKER (IN)	TYPE III BARRICADE	REMOVE PVMT MARKER	TEMP PAVEMENT MARKER	REMOVE THERMOPLASTIC TRAFFIC STRIPE	REMOVE YELLOW PAINTED TRAFFIC STRIPE	TEMP TRAFFIC STRIPE (TAPES)
	m	m	EA	EA	EA	EA	EA	m	m	m
I	79	61	28	3	4	35	116	878	510	1838
II	55	55	14	3	4	22	62	740	310	2110
III	61	61	28	5						
TOTAL	195	177	70	11	8	57	178	1618	820	3948

(N) = NOT A SEPARATE PAY ITEM. FOR INFORMATION ONLY

**STAGE CONSTRUCTION**  
NO SCALE

SC-5

THIS PLAN ACCURATE FOR STAGE CONSTRUCTION ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

FOR REDUCED PLANS ORIGINAL  
SCALE IS IN MILLIMETERS

```

  USERNAME => AR001001
  DCN FILE => 71x149103.jpg

```

CU 07279

EA 1X1401

DATE PLOTTED - 05-JAN-2001

REVISED BY \_\_\_\_\_  
DATE REVISED \_\_\_\_\_

DATE \_\_\_\_\_

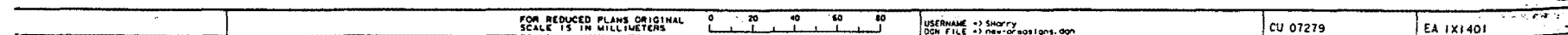

- 

[illegible]

\_\_\_\_\_

1

EXHIBIT # 7



NO SCALE

CS-1

ALL DIMENSIONS ARE IN  
METERS UNLESS OTHERWISE SHOWN

FOR REDUCED PLANS ORIGINAL  
SCALE IS IN MILLIMETERS

```

USERNAME => SHARRY
DCN FILE => new-orleans.ans.com

```

CU 07279

EA 1X1401

# ABBREVIATIONS

AMEND - amendment  
 Ø & Ø - called and burricapped  
 ØA - diameter  
 SA - sacn  
 g - gram  
 kg - kilogram  
 m - meter  
 m² - square meter  
 m³ - cubic meter  
 MAX - maximum

MIN - minimum  
 mm - millimeter  
 No - number  
 PLT ESTB - plant establishment  
 PVT - pavement  
 R/W - right of way  
 SF - state furnished  
 TAB - tablet  
 TRVD - traveled

## APPLICABLE WHEN CIRCLED:

- ① - Quantities shown are "per plant" unless shown as application rates.
- ② - Sufficient to receive root ball.
- ③ - Does not apply to mulch areas.
- ④ - As shown on plans.
- ⑤ - Unless otherwise shown on plans.
- ⑥ - See detail.
- ⑦ - See Special Provisions.

### NOTE:

Underlined portions of botanical name indicate abbreviations used on Planting Plans.



07 LA 1 68.4

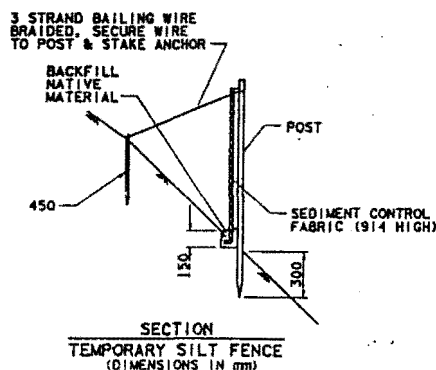
4-13-01

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA, by the OFFICER OF  
 PLANTS, does not be responsible for the accuracy  
 or completeness of electronic copies of this plan  
 sheet.

## PLANT LIST AND PLANTING SPECIFICATIONS

PLANT GROUP	PLANT No	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY EACH	HOLE SIZE (mm)		BASIN TYPE	IRON SULFATE ①	SOIL AMEND ①	COMMERCIAL FERTILIZER ①		BASIN MULCH ①	STAKING	PLANTING LIMITS								REMARKS
							ØA	DEPTH				MINIMUM DISTANCE (m) FROM				ON CENTER (m)								
												TRUNK WAY	PLANT			FENCE	WALL	PAVED DITCH	EARTH DITCH					
A	1	⊙	ATRIplex LENTIFORMIS BREWERI	BREWER SALT BUSH	No 1	122	②	②	II	-	-	-	-	.04 m³	-	-	-	LO	-	-	-	-	-	SHRUB SPACE 1.0 m2 ⑦
	2	⊙	BACCHARIS PILULARIS	COYOTE BRUSH	No 1	86	②	②	II	-	-	-	-	.04 m³	-	-	-	LO	-	-	-	-	-	SHRUB SPACE 1.0 m2 ⑦
	3	⊙	ERIOGONUM CINEREA	ASHY LEAF BUCKWHEAT	No 1	176	②	②	II	-	-	-	-	.04 m³	-	-	-	LO	-	-	-	-	-	SHRUB SPACE 1.0 m2 ⑦
	4	⊙	RHUS LAURINA (MALOSMA LAURINA)	LAUREL SUMAC	No 1	71	②	②	II	-	-	-	-	.04 m³	-	-	-	LO	-	-	-	-	-	SHRUB SPACE 1.0 m2 ⑦
D	5	⊙	LYPMA LATIFOLIA	CATTAILS	ROOT CLUMP	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	SHRUB SPACE 1.52 m2 ⑥ ⑦



## PLANTING LIST AND DETAILS

NO SCALE

HP-1

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 PROJECT: LANDSCAPE ARCHITECTURE  
 DESIGNED BY: GARY KATO  
 CHECKED BY: GARY KATO  
 DATE: 10-11-01  
 10-11-01  
 10-11-01

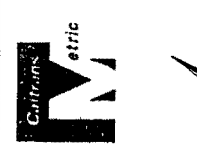
07 LA 1 88.4

DATE 4-13-01

PLANTING PLAN

SCALE 1:200

HP-2



AREA OF NON NATIVE VEGETATION REMOVAL

22 ATR LEN  
102 ERI CIN  
11 ERI LAL  
20 m<sup>2</sup> MULCH

26 TYP LAL

BOARDS TYPICAL

1 m<sup>2</sup> MULCH

ROUTE 1

19 m<sup>2</sup> MULCH

EXIST RETAINING WALL (BOTTOM) TO REMAIN

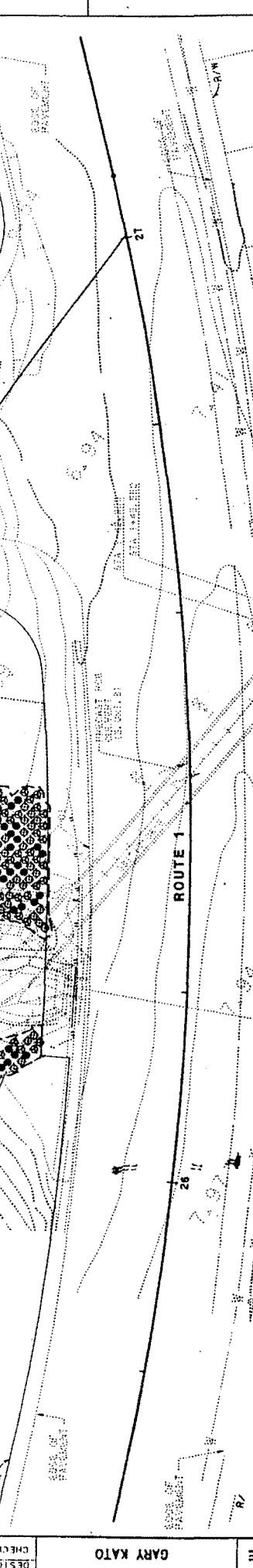
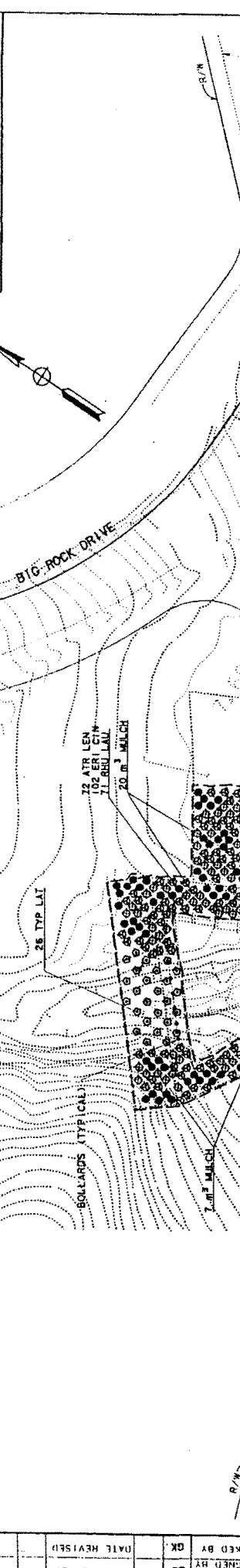


EXHIBIT # 1

PAGE 11 of 11

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

PROJECT LANDSCAPE ARCHITECTURE

GARY KATO

DESIGNED BY BS

CHECKED BY GK

DATE

REVISOR

DATE

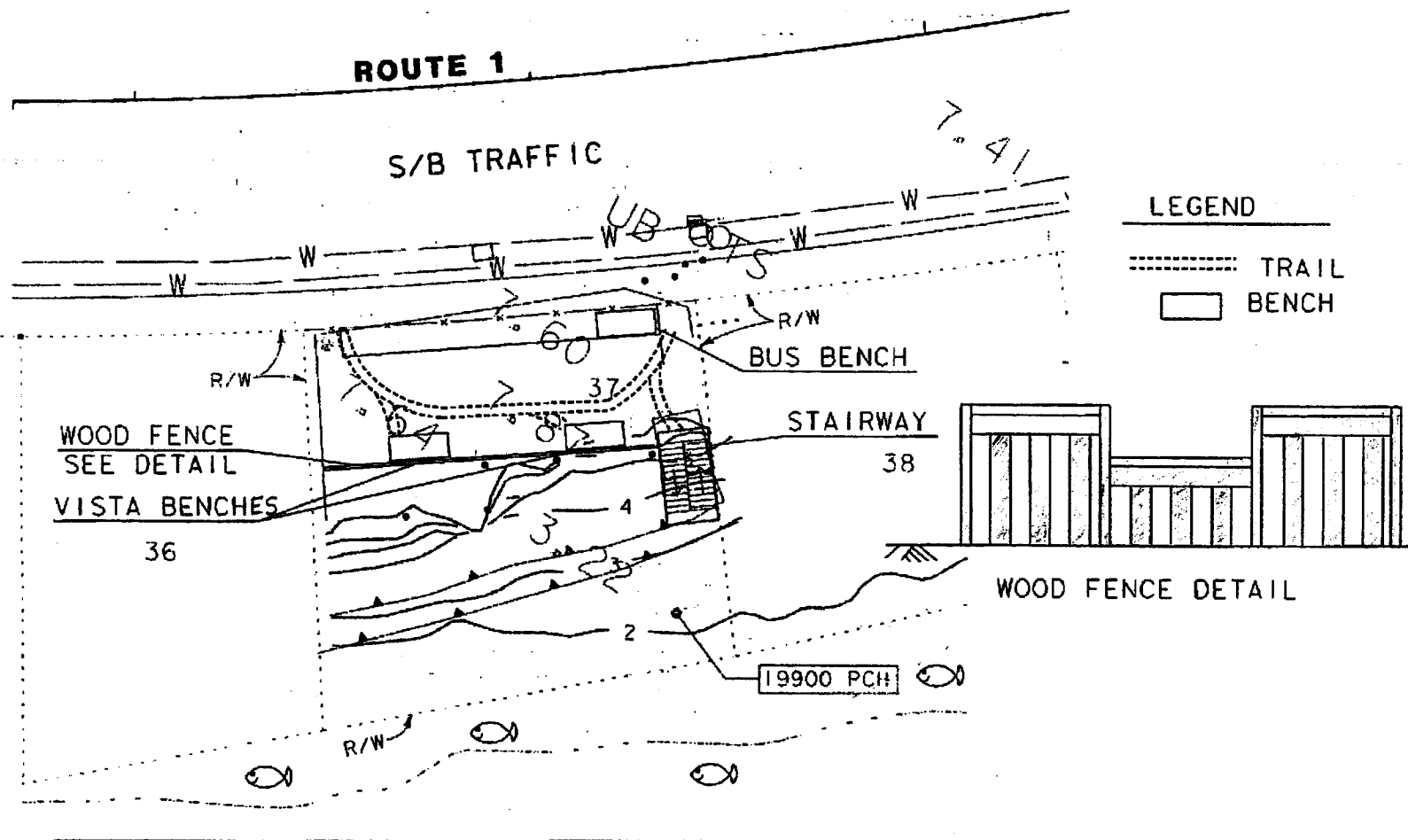
PLANTING PLAN

SCALE 1:200

HP-2

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

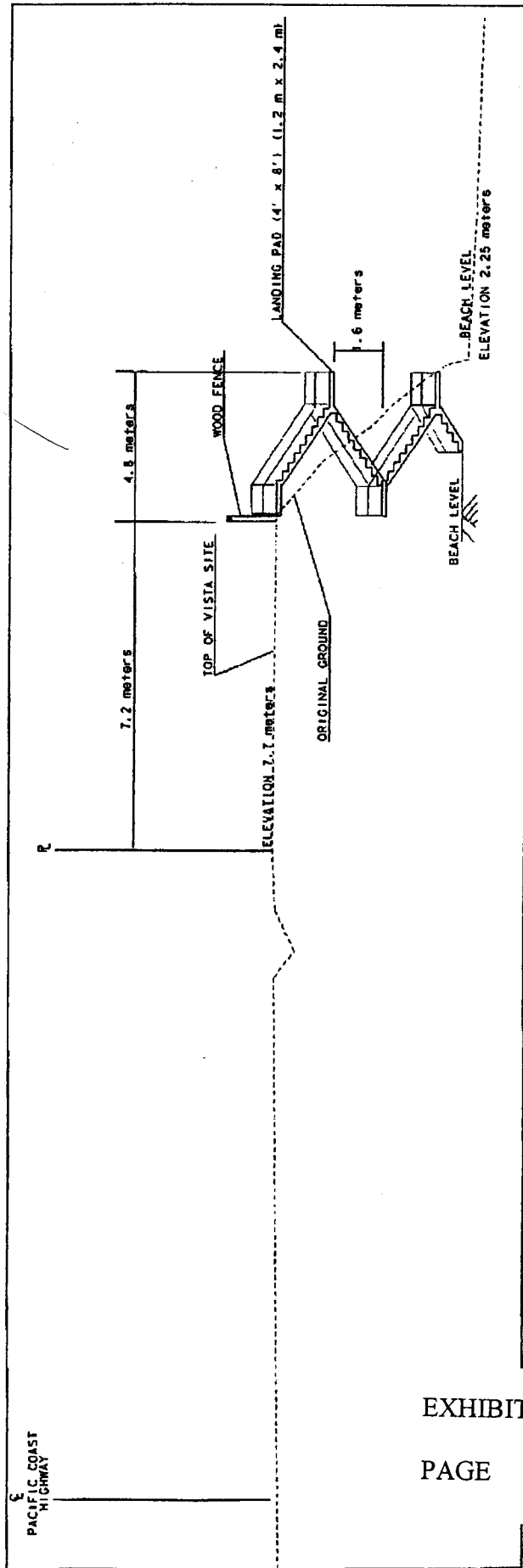
THIS PLAN ACCURATE FOR PLANTING ONLY



# LEGEND

- TRAIL
- BENCH

15.74'



2002 16:04:00

d:\doc

**RECEIVED**  
South Coast Region

## MEMORANDUM

JAN 17 2002

CALIFORNIA  
COASTAL COMMISSION

Date: November 9, 2001

File: LA-1-KP 68.4  
(PM 42.5)

EA: 1X1401

To: ROBERT W. SASSAMAN  
District Director

R/W Fed-Aid. No.: None  
Const. Fed-Aid No.: Not available

Attn: Eric Wang

From: DEPARTMENT OF TRANSPORTATION - 07

Subject: Right of Way Certification No. 2 for the project in Los Angeles County in Malibu at Piedra Gorda Canyon - **DRAINAGE UPGRADE AT PIEDRA GORDA CANYON**

1. **STATUS OF REQUIRED RIGHT OF WAY:** Right of way has been acquired in accordance with applicable policy and procedure covering the acquisition of real property. State has legal and physical possession and right to enter on all land as follows:

A. Total number of parcels required.....2

1) Parcels covered by Right of Entry.....1

<u>Parcel</u>	<u>Owner</u>	<u>Type</u>	<u>Effective Date</u>	<u>Date Funds Made Available to Owner</u>
77010	HFH Part.	Agmt for Use and Possession	3-1-01	November 30, 2001

Escrow will be opening by November 13, 2001, and is expected to close no later than November 30, 2001. It is a vacant residential lot and there is no displacement of people. We are acquiring a temporary construction easement and a permanent drainage easement.

2) Parcels covered by Order for Possession.....1

<u>Parcel No.</u>	<u>Owner</u>	<u>Effective OP Date</u>
77009	Millenium Holdings	July 24, 2001

Total Covered..... 2

EXHIBIT #

3

PAGE

1

of

2



Certification No. 1X1401

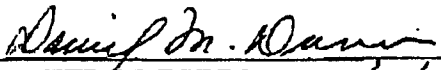
Page 2

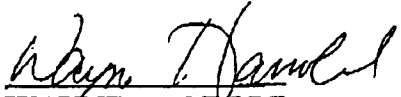
November 9, 2001

2. **STATUS OF AFFECTED RAILROAD OPERATING FACILITIES:** None affected.
3. **MATERIAL/DISPOSAL SITE(S):** None required.
4. **STATUS OF REQUIRED UTILITY RELOCATIONS:** None required.
5. **RIGHT OF WAY CLEARANCE:** There are no improvements or obstructions located within the limits of this project.
6. **AIRSPACE AGREEMENTS:** There are no airspace lease properties within the limits of this project.
7. **COMPLIANCE WITH RELOCATION ASSISTANCE PROGRAM REQUIREMENTS:** Compliance was not required as there were no displacements for this project.
8. **ENVIRONMENTAL MITIGATION:** No environmental mitigation parcels are required for the project.
9. **CERTIFICATION:** I hereby certify the right of way on this project as conforming to 23 CFR 635.309(C)(2). The project may be advertised with contract award being made at any time.

**RECOMMENDED FOR APPROVAL:**

**APPROVED:**

  
**DANIEL M. DUNN** 11/9/01  
R/W Project Coordinator  
Los Angeles Office  
Southern Right of Way Region

 11/13/01  
**WAYNE HARROLD**  
Acting Regional R/W Project  
Management Services Manager  
Southern Right of Way Region

DMD:jk EA 1X1401

EXHIBIT # 3  
PAGE 2 of 2



CALIFORNIA DEPARTMENT OF FISH AND GAME  
1933 Cliff Drive, Suite 9  
Santa Barbara, CA 93109

Notification No. 5-255-00

Page 1

### AGREEMENT REGARDING PROPOSED STREAM OR LAKE ALTERATION

THIS AGREEMENT, entered into between the State of California, Department of Fish and Game, hereinafter called the Department, and Karen Drew of CalTrans, State of California, hereinafter called the Operator, is as follows:

WHEREAS, pursuant to Section 1601 of California Fish and Game Code, the Operator, on the 13<sup>th</sup> day of September, 2000, notified the Department that they intend to divert or obstruct the natural flow of, or change the bed, channel, or bank of, or use material from the streambed(s) of the following water(s): Big Rock Creek, Los Angeles County, California, Section 36, Township 1S, Range 17W.

WHEREAS, the Department (represented by Natasha Lohmus) has made an inspection of subject area on the 12<sup>th</sup> day of October, 2000, and has determined that such operations may substantially adversely affect existing fish and wildlife resources including: fishes ( ), amphibians ( ), reptiles (x), songbirds (various), raptors (x), mammals (raccoon), plants (willows, mulefat, castor bean, sycamore, fennel, sumac, cattail) and other aquatic and wildlife resources in the area.

THEREFORE, the Department hereby proposes measures to protect fish and wildlife resources during the Operator's work. The Operator hereby agrees to accept the following measures/conditions as part of the proposed work.

If the Operator's work changes from that stated in the notification specified above, this Agreement is no longer valid and a new notification shall be submitted to the Department of Fish and Game. Failure to comply with the provisions of this Agreement and with other pertinent code sections, including but not limited to Fish and Game Code Sections 5650, 5652, 5901, 5931, 5937, and 5948, may result in prosecution.

Nothing in this Agreement authorizes the Operator to trespass on any land or property, nor does it relieve the Operator of responsibility for compliance with applicable federal, state, or local laws or ordinances. A consummated Agreement does not constitute Department of Fish and Game endorsement of the proposed operation, or assure the Department's concurrence with permits required from other agencies.

9/30/02 NV  
This Agreement becomes effective on the Department's signature and the construction portion terminates on 12/1/01. This Agreement shall remain in effect until 12/1/03 to satisfy the mitigation and maintenance terms/conditions of this Agreement.

EXHIBIT #

4

PAGE

1

of

11

Page 3

STREAMBED ALTERATION CONDITIONS FOR NOTIFICATION NUMBER: 5-255-00

1. The following provisions constitute the limit of activities agreed to and resolved by this Agreement. The signing of this Agreement does not imply that the Operator is precluded from doing other activities at the site. However, activities not specifically agreed to and resolved by this Agreement, shall be subject to separate notification pursuant to Fish and Game Code Sections 1600 et seq.

2. The Operator proposes to alter the streambed by expanding an existing headwall, and to construct a secondary culvert from the same inlet point, under PCH, to a vacant lot at the beach, to discharge 3.05 m above the mean high tide. The area is highly disturbed.  
*0.60m*

3. The agreed work includes activities associated with No. 2 above. The project area is located in Los Angeles County at Big Rock Drive and Pacific Coast Highway in Malibu. Specific work areas and mitigation measures are described on/in the plans and documents submitted by the Operator and shall be implemented as proposed, unless directed differently by this agreement. Contact Karen Drewe at Phone: 213-897-2919 for additional information.

4. COPIES OF THIS AGREEMENT AND ALL REQUIRED PERMITS AND SUPPORTING DOCUMENTS, PROVIDED WITH NOTIFICATION OR REQUIRED BY THIS AGREEMENT SHALL BE READILY AVAILABLE AT WORK SITES AT ALL TIMES DURING PERIODS OF ACTIVE WORK.

5. The Operator shall request an extension of this agreement prior to its termination. Extensions may be granted for up to 12 months from the date of termination of the agreement and are subject to Departmental approval. The extension request and fees shall be submitted to the Department's Region 5 Office at the above address. If the Operator fails to request the extension prior to the agreement's termination, then the Operator shall submit a new notification with fees and required information to the Department. Any activities conducted under an expired agreement are a violation of Fish and Game Code Section 1600 et seq. The Operator may request a maximum of 1 extension(s) of this agreement.

## &lt;&lt;WORK AREAS AND VEGETATION REMOVAL&gt;&gt;

6. Disturbance or removal of vegetation shall not exceed the limits approved by the Department. The disturbed portions of any stream channel or lake margin, within the high water mark of the stream or lake, shall be restored to their original condition under the direction of the Department.

7. Restoration shall include the revegetation of stripped or exposed work and/or mitigation areas with vegetation native to the area.

8. The work area shall be flagged to identify its limits within the stream, not to exceed -30- feet upstream from the existing headwall. Vegetation shall not be removed or intentionally damaged beyond these limits. Vegetation in this area consists of willows, cattails and mulefat,

EXHIBIT #

4

PAGE

2

of

11

Page 3

and if damaged, shall be included into the mitigation.

9. In areas of temporary disturbance, where vegetation must be removed, native trees and shrubs, with DBHs of 3 inches or less, shall be cut to ground level with hand operated power tools rather than by grading. No replanting will be required for vegetation of this size and type if it is cleared in this manner.

10. Vegetation removed from the stream shall not be stockpiled in the stream bed or on its bank. The sites selected on which to push this material out of the stream should be selected in compliance with the other provisions of this Agreement. Where possible brush piles shall be left to provide wildlife habitat.

11. No living native vegetation shall be removed from the channel, bed, or banks of the stream, except as otherwise provided for in this agreement.

12. Any oaks and sycamores which are damaged/removed during construction operations shall be replaced in kind at a 10:1 ratio.

#### <<EQUIPMENT AND ACCESS>>

13. Staging/storage areas for equipment and materials shall be located outside of the stream/lake.

14. Vehicles shall not be driven or equipment operated in water covered portions of a stream or lake, or where wetland vegetation, riparian vegetation, or aquatic organisms may be destroyed, except as otherwise provided for in the Agreement and as necessary to complete authorized work.

#### <<FILL AND SPOIL>>

15. Fill length, width, and height dimensions shall not exceed those of the original installation or the original naturally occurring topography, contour, and elevation. Fill shall be limited to the minimal amount necessary to accomplish the agreed activities. Except as otherwise specified in this Agreement, fill construction materials other than on-site alluvium, shall consist of clean silt-free gravel or river rock.

16. To facilitate restoration, the Operator shall salvage native topsoil (the top 6 to 12 inch deep layer containing organic material) from the worksite prior to construction. Following construction, salvaged topsoil shall be returned to the work area/placed in the restoration site.

17. Spoil storage sites shall not be located within a stream/lake, where spoil can be washed back into a stream/lake, or where it will cover aquatic or riparian vegetation.

#### <<STRUCTURES>>

EXHIBIT # 4  
PAGE 3 of 11

Page 2

18. Installation of bridges, culverts, or other structures shall be such that water flow (velocity and low flow channel width) is not impaired. The headwall may be raised 1.8m. Rock (ungrouted) shall be placed at the outlet to prevent erosion.

19. This Agreement does not authorize the construction of any temporary or permanent dam, structure, flow restriction or fill except as described in the Operator's notification.

20. Storm drains lines/culverts shall be adequately sized to carry peak storm flows for the drainage to one outfall structure. The storm drain lines/culverts and the outfall structure shall be properly aligned within the stream and otherwise engineered, installed and maintained, to assure resistance to washout, and to erosion of the stream bed, stream banks and/or fill. Water velocity shall be dissipated at the outfall, to reduce erosion.

#### <<CLEAN UP>>

21. Structures and associated materials not designed to withstand high water flows shall be moved to areas above high water before such flows occur.

22. Any materials placed in seasonally dry portions of a stream or lake that could be washed downstream or could be deleterious to aquatic life shall be removed from the project site prior to inundation by high flows.

23. Areas of disturbed soils with slopes toward a stream or lake shall be stabilized to reduce erosion potential. Planting, seeding and mulching is conditionally acceptable. Where suitable vegetation cannot reasonably be expected to become established, non-erodible materials, such as coconut fiber matting, shall be used for such stabilization. Any installation of non-erodible materials not described in the original project description shall be coordinated with the Department. Coordination may include the negotiation of additional Agreement provisions for this activity.

#### <<POLLUTION, SEDIMENTATION, AND LITTER>>

24. No debris, soil, silt, sand, bark, slash, sawdust, rubbish, construction waste, cement or concrete or washings thereof, oil or petroleum products or other organic or earthen material from any logging, construction, or associated activity of whatever nature shall be allowed to enter into or placed where it may be washed by rainfall or runoff into, waters of the State. When operations are completed, any excess materials or debris shall be removed from the work area. No rubbish shall be deposited within 150 feet of the high water mark of any stream or lake.

25. The Operator shall comply with all litter and pollution laws. All contractors, subcontractors and employees shall also obey these laws and it shall be the responsibility of the operator to insure compliance.

26. Any equipment or vehicles driven and/or operated within or adjacent to the stream/lake shall be checked and maintained daily, to prevent leaks of materials that if introduced to water

Page 5

could be deleterious to aquatic life.

27. Stationary equipment such as motors, pumps, generators, and welders, located within or adjacent to the stream/lake shall be positioned over drip pans.

28. No equipment maintenance shall be done within or near any stream channel or lake margin where petroleum products or other pollutants from the equipment may enter these areas under any flow.

29. The clean-up of all spills shall begin immediately. The Department shall be notified immediately by the Operator of any spills and shall be consulted regarding clean-up procedures.

30. Raw cement/concrete or washings thereof, asphalt, paint, construction waste, or other coating material, oil or other petroleum products, or any other substances which could be hazardous to aquatic life, resulting from project related activities, shall be prevented from contaminating the soil and/or entering the waters of the state. Any of these materials, placed within or where they may enter a stream or lake, by the Operator or any party working under contract, or with the permission of the Operator, shall be removed immediately.

31. Equipment shall not be operated in wetted areas (including but not limited to ponded, flowing, or wetland areas) without the prior written approval of the Department.

32. Precautions to minimize turbidity/siltation shall be taken into account during project planning and shall be installed prior to construction. Precautions may also include placement of silt fencing, hay bales, sand bags, and/or the construction of silt catchment basins, so that silt, or other deleterious materials are not allowed to pass to downstream reaches. The method used to prevent siltation shall be monitored and cleaned/repared weekly. The placement of any structure or materials in the stream for this purpose, not included in the original project description, or Department approved water pollution/water diversion plan shall be coordinated with the Department. Coordination shall include the negotiation of additional Agreement provisions.

33. Silty/turbid water from dewatering or other activities, shall not be discharged into the stream. Such water shall be settled, filtered, or otherwise treated prior to discharge. The Operator's ability to minimize turbidity/siltation shall be the subject of pre-construction planning and feature implementation.

34. Upon Department determination that turbidity/siltation levels resulting from project related activities constitute a threat to aquatic life, activities associated with the turbidity/siltation, shall be halted until effective Department approved control devices are installed, or abatement procedures are initiated.

35. If a stream's low flow channel, bed or banks/lake bed or banks have been altered, these shall be returned as nearly as possible to their original configuration and width, without creating future erosion problems.

EXHIBIT #

4

PAGE

5

of

11

Page 2

the bed or banks of the stream, except as otherwise addressed in this Agreement.

## &lt;&lt;FISH PASSAGE&gt;&gt;

37. Any structure/culvert placed within a stream where fish do/may occur, shall be designed, constructed and maintained such that it does not constitute a barrier to upstream or downstream movement of aquatic life, or cause an avoidance reaction by fish that impedes their upstream or downstream movement. This includes but is not limited to the supply of water at an appropriate depth, temperature, and velocity to facilitate upstream and downstream fish migration. If any aspect of the proposed project results in a long term reduction in fish movement, the operator shall be responsible for all future activities and expenditures necessary (as determined by the Department) to secure passage of fish across the structure.

## &lt;&lt;RESTORATION/MITIGATION&gt;&gt;

38. To provide protection from erosion, the Operator shall plant willow cuttings (obtained from nearby plants) on 6-8 ft centers, upstream of the headwall. These shall be planted during the willows dormant season, and shall be augered/dug into the groundwater or wetted soil.

39. MITIGATION FOR AREAS OF TEMPORARY DISTURBANCE--No more than 0.02 acres of habitat within the banks, bed, and channel of the stream and/or riparian habitat shall be temporarily disturbed/impacted due to the proposed operations. Restoration shall include the revegetation of stripped or exposed work areas within the banks, bed, and channel of the stream (including construction areas, access roads, etc.) with native vegetation (cattails, mulefat and willows) local to the area and/or the removal of invasive species at a ratio of 3:1. Cattails may be harvested from the impact area and replanted.

40. If native trees have been removed from the upper one-half of the stream's banks, they shall be replaced in-kind, and maintained until established, under the direction of a Department representative.

41. In order to determine if the revegetation techniques used have been successful, any plant species required that are listed below shall achieve the minimum growth at the end of three and five years. If the minimum growth is not achieved, then the Operator shall be responsible for taking the appropriate corrective measures as determined by Department representatives. The Operator shall be responsible for any cost incurred during the revegetation or in subsequent corrective measures.

SPECIES	SIZE AT PLANTING (GALLONS)	PLANTING CENTERS	HEIGHT	
			3 years	5 years
Arroyo Willow	1 gallon	8 ft	10 ft	15 ft

EXHIBIT # 4

PAGE 6 of 11

Page 7

Sandbar Willow	1 gallon	5 ft	4 ft	3 ft
Red Willow	1 gallon	8 ft	9 ft	15 ft
Scrub	1 gallon	20 ft	2 ft	4 ft
All Shrub species	1 gallon			

42. Planting, maintenance, monitoring and reporting activities shall be overseen by a specialist familiar with restoration of native plants.

43. All planting shall have a minimum of 80% survival, by species, the first year and 100% survival thereafter and/or shall attain 75% cover after 3 years and 90% cover after 5 years for the life of the project. If the survival and cover requirements have not been met, the Operator is responsible for replacement planting to achieve these requirements. Replacement plants shall be monitored with the same survival and growth requirements for 5 years after planting.

44. All planting should be done, after the first wetting rains between October 1 and February 1 to take advantage of the winter rainy season, dormancy of foliage, and rooting period to ensure optimum survival of plantings. Should the Operator be required to plant during other times of the year, chances of survival are diminished. To compensate for decreased survival rates, the Operator shall be required to augment the specified planting density by 25 % to account for the likelihood of increased mortality of plantings. Any restoration/planting shall be completed by 12/30/01.

45. The Operator shall provide irrigation when natural moisture conditions are inadequate to ensure survival of plants. Irrigation shall be provided for a period of at least two years from planting. Irrigation shall be phased out during the fall/winter of second year unless unusually severe conditions threaten survival of plantings. All plants must survive and grow for at least three years without supplemental water for the restoration phase of the project to be eligible for acceptance by the Department.

46. Plant material for revegetation shall be derived from cuttings, materials salvaged from disturbed areas, and/or seeds obtained from randomly selected native trees and shrubs occurring locally within the same drainage.

#### <<REMOVING NON-NATIVE VEGETATION>>

47. The Operator shall remove any non-native vegetation (tree tobacco, castor bean, giant cane, etc.) from the work area and shall dispose of it in a manner and a location which prevents its reestablishment. ~~Removal shall be done at least twice annually during the spring/summer season, as needed, through the term of restoration.~~ *M* The non-native vegetation will be removed three times from May 2002 to October 2002.

48. Whenever possible, invasive species shall be removed by hand or by hand-operated power tools rather than by chemical means. Where control of non-native vegetation is required within the bed, bank, or channel of the stream, the use of herbicides is necessary, and there is a possibility that the herbicides could come into contact with water, the Operator

EXHIBIT # 4PAGE 7 of 11



Page 1

shall employ only those herbicides, such as Rodeo (Gly phosate), which are approved for aquatic use. If surfactants are required, they shall be restricted to non-ionic chemicals, such as Agri-Dex, which are approved for aquatic use.

49. The Operator shall apply any herbicides in accordance with state and federal law. No herbicides shall be used where Threatened or Endangered species occur. No herbicides shall be used when wind velocities are above 5 miles per hour.

50. No herbicides shall be used on native vegetation unless specifically authorized, in writing, by the Department.

#### <<PERMITTING AND SAFEGUARDS>>

51. No work shall be completed under this Agreement until copies of all necessary permits have been provided to the Department or until written and/or verbal verification has been provided to the Department, by concerned regulatory agencies, that such permits are not required.

52. If permits/certification are required from the Corps of Engineers/California Coastal Commission/Regional Water Quality Control Board for this project, the Operator shall submit to the Department copies of said permit/certification prior to commencing work. All terms and conditions required in the permits/certification, more restrictive than in this agreement, shall be a part of this agreement and shall be enforceable by the Department.

#### <<PROTECTION FOR WILDLIFE AND AQUATIC SPECIES>>

53. The Operator shall not allow any vegetation removal within the site from (March 1<sup>st</sup>) to (June 15<sup>th</sup>), the recognized breeding, nesting and fledging season for most bird species. If vegetation has to be removed within these dates, a qualified biologist shall conduct bird surveys for nesting birds. If a listed species is found, a qualified biologist shall conduct 8 bird surveys, 10 days apart, in compliance with Fish and Wildlife Service protocols.

54. The Operator's activities within the stream course shall be limited to the dry period of the year from May 1 to October 1 or when the stream is not actively flowing.

55. If Least Bell's Vireo (LBV), willow flycatcher, yellow-billed cuckoo, steelhead, tiger salamander, Lyon's pentachaeta, or any other T/E species are found within 500 feet of the work area, the Operator shall contact the Department within 24 hours of the sighting and shall request an onsite inspection by Department representatives (to be done at the discretion of the Department) to determine if work shall begin/proceed. If work is in progress when sightings are made, the Operator shall cease all work within 500 feet of the area in which the sighting(s) occurred and shall contact the Department within 24 hours of the sighting, to determine if work shall recommence.

56. Should the Least Bell's Vireo willow flycatcher yellow-billed cuckoo Unarmored threespine stickleback, tiger salamander, steelhead, or any other rare, threatened or

EXHIBIT # 4  
PAGE 8 of 11

Page 3

endangered species occur in the area, the Operator shall submit, for Department review and approval, a plan to ensure that no rare, threatened or endangered species are disturbed during project implementation. The plan shall be approved by the Department prior to initiation of any work.

57. A biological monitor shall be on site prior to operations and shall survey for species prior to construction. If any species are found in the path of construction, the monitor shall relocate the species to a safe location. Exclusionary fencing shall be erected to prevent the migration into or the return of species into the work site.

<<MAINTENANCE>>

58. The Operator may remove vegetation and debris, including sediment and rocks, which directly interfere with the proper function and operation of existing devices, to include gates, culverts, bridges, weirs, pumps, and stream flow control and measuring stations, or that which must be removed to repair said devices or to replace them in their existing locations. Where vehicles are required to do this work, removal shall not extend more than 5 feet in any direction, from said device. Where vehicles are not required, removal shall not extend more than 12 feet in any direction from said device. The stream bed and stream banks are not considered "devices", for purposes of this provision.

59. Except as otherwise permitted in this Agreement, the removal of soil, vegetation, and vegetative debris from the stream bed or stream banks is prohibited. The Operator shall remove all human generated debris, such as lawn and farm cuttings, garbage and trash. The Operator shall remove washed out culverts, and other construction materials, that the Operator places within, or where they may enter the stream.

60. Spoil shall not be placed on the stream side slope, or where it could enter the stream. Spoil shall not be placed over vegetation except as specifically noticed to and accepted by the Department.

<<ADMINISTRATIVE-MISC.>>

61. All provisions of this Agreement remain in force throughout the term of the Agreement. Any provisions of the Agreement may be amended or the Agreement may be terminated at any time provided such amendment and/or termination is agreed to in writing by both parties. Mutually approved amendments become part of the original Agreement and are subject to all previously negotiated provisions.

62. All CalTrans project resident engineers, project engineers, project inspectors, contractors, and subcontractors, participating in this project, must read and understand all terms and conditions of this agreement and shall abide by the terms and conditions stated herein.

63. If the Operator or any employees, agents, contractors and/or subcontractors violate any of the terms or conditions of this agreement, all work shall terminate immediately and shall not proceed until the Department has taken all of its legal actions.

EXHIBIT #

4

PAGE

9

of

11

Page 10

64. The Operator shall provide a copy of this Agreement, to all contractors, subcontractors, and the Operator's project supervisors. COPIES OF THIS AGREEMENT AND ALL REQUIRED PERMITS AND SUPPORTING DOCUMENTS, SHALL BE READILY AVAILABLE AT WORK SITES AT ALL TIMES DURING PERIODS OF ACTIVE WORK and must be presented to any Department personnel, or personnel from another agency upon demand. ALL CONTRACTORS SHALL READ AND BECOME FAMILIAR WITH THE CONTENTS OF THIS AGREEMENT.

65. A pre-construction meeting/briefing shall be held involving all the contractors and subcontractors, concerning the conditions in this Agreement.

66. The Operator shall notify the Department, in writing, at least five (5) days prior to initiation of construction (project) activities (\*\*) and at least five (5) days prior to completion of construction (project) activities. Notification shall be sent to the Department at 4949 Viewridge Avenue, San Diego 92123, Attn: ES. FAX Number (858) 467-4235. (\*\*) The Department's signature on this agreement shall suffice for 5 day notice of intent to commence activities under this agreement.

67. The Department reserves the right to cancel this Agreement, after giving notice to the Operator, if the Department determines that the Operator has breached any of the terms or conditions of the Agreement.

68. The Department reserves the right to suspend or cancel this Agreement for other reasons, including but not limited to, the following:

- a. The Department determines that the information provided by the Operator in support of this Agreement/Notification is incomplete or inaccurate;
- b. The Department obtains new information that was not known to it in preparing the terms and conditions of this Agreement;
- c. The condition of, or affecting fish and wildlife resources change; and
- d. The Department determines that project activities have resulted in a substantial adverse effect on the environment.

Before any suspension or cancellation of the Agreement, the Department will notify the Operator in writing of the circumstances which the Department believes warrant suspension or cancellation. The Operator will have seven (7) working days from the date of receipt of the notification to respond in writing to the circumstances described in the Department's notification. During the seven (7) day response period, the Operator shall immediately cease any project activities which the Department specified in its notification as resulting in a substantial adverse effect on the environment and which will continue to substantially adversely affect the environment during the response period. The Operator may continue the specified activities if the Department and the Operator agree on a method to adequately mitigate or eliminate the substantial adverse effect.

CONCURRENCE

EXHIBIT # 4  
PAGE 10 of 11

Page 11

1130102 NL  
This Agreement becomes effective on the Department's signature and the construction portion termination on 12/1/01. This Agreement shall remain in effect until 12/1/03 to satisfy the repair and maintenance terms/conditions of this Agreement.

This agreement was prepared by Natasha Lohmus

(Operator's name)

Refugio Dominguez 9/6/01  
Name (signature) Date

Refugio Dominguez  
Name (printed)

BRANCH CHIEF  
Title

California Department of Fish and Game

Charles Raysbrook 11/16/01  
Charles Raysbrook Date  
Regional Manager

5-255-00

EXHIBIT # 4  
PAGE 11 of 11



Exhibit: 5.  
Page 1 of 1.

CDP # 4-00-266 ~ Vacant coastal lot in center is parcel APN# 4450-001-039 located at 19900 Pacific Coast Highway, City of Malibu, Los Angeles County. View is facing south—PCH runs left to right in picture, Big Rock Drive is intersection to left. Note the view of Palos Verde Peninsula in distance across the Santa Monica Bay (behind the traffic signal light post in center).

