

CALIFORNIA COASTAL COMMISSION

SAN DIEGO AREA

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Thu 14c

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 Staff: LRO-SD
 Staff Report: 2/24/05
 Hearing Date: 3/16-18/05

REGULAR CALENDAR
STAFF REPORT AND PRELIMINARY RECOMMENDATION

Application No.: 6-04-94

Applicant: City of San Diego

Agent: Dirk Smith

Description: Installation of tieback anchors and grade beam into bluff to brace (for seismic safety) two 84-inch outfall penstocks (pipes) located on the face of a coastal bluff at the Point Loma Wastewater Treatment Plant.

Site: Point Loma Wastewater Treatment Plant, Peninsula, San Diego, San Diego County. APN 532-520-06

Substantive File Documents: Letter dated 10/12/04 from Tierra Costa Consulting Group; City of San Diego Metropolitan Wastewater Department 84" Diameter Penstock Seismic Study for the Point Loma Wastewater Treatment Plant by Brown and Caldwell and Simon Wong Engineering, February 2003; Limited Geotechnical Investigation for Navy Property Improvements Point Loma Wastewater Treatment Plant by Black and Veatch dated 2/15/96; Final Preliminary Report North Shoreline Protection Improvements Point Loma Wastewater Treatment Plant by Black and Veatch dated 7/5/95; and Shoreline Protection Project Point Loma Treatment Plan by City of San Diego Utilities Department dated 5/6/88.

STAFF NOTES:

Summary of Staff's Preliminary Recommendation:

Staff recommends that the Commission approve the proposed project with special conditions. The proposal raises potential concerns regarding geologic stability and water quality. The project involves bracing two existing pipes located on the face of a coastal bluff that includes some excavation into the face of the coastal bluff. However, the proposal is for seismic safety purposes only and has been reviewed by both the Commission's staff geologist and coastal engineer who have concluded the project is necessary to assure seismic safety and will not result in adverse impacts on bluff stability. Because the proposal involves excavation on the face of the bluff, special conditions are proposed to assure no impacts occur to water quality resulting from construction

activities or sedimentation. As conditioned, the project is consistent with all applicable Chapter 3 policies of the Coastal Act.

I. PRELIMINARY STAFF RECOMMENDATION:

The staff recommends the Commission adopt the following resolution:

MOTION: *I move that the Commission approve Coastal Development Permit No. 6-04-94 pursuant to the staff recommendation.*

STAFF RECOMMENDATION OF APPROVAL:

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

RESOLUTION TO APPROVE THE PERMIT:

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

II. Standard Conditions.

See attached page.

III. Special Conditions.

The permit is subject to the following conditions:

1. Final Plans. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit final project plans in substantial conformance with the plans submitted by the Metropolitan Wastewater Department date stamped 8/27/04 that consistently orient north to the top of the plan sheet and that correctly refer to detail call-outs. Said plans shall be used to support any As-Built submittal.

The permittee shall undertake development in accordance with the approved landscape plans Any proposed changes to the approved final plans shall be reported to the

Executive Director. No changes to the approved final plans shall occur without an amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

2. Erosion and Run-Off Control Plans/BMP's.

A. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit, for review and approval of the Executive Director, a plan for erosion and run-off control.

(a) The erosion control plan shall demonstrate that:

- (1) All steep, exposed, erodible soil conditions around the project site shall be addressed to assure that no project-derived increases to erosion rates shall occur and that during construction, erosion on the site shall be controlled to avoid the discharge of construction materials over the bluff into the ocean.
- (2) Prior to construction, before and after photographs shall be submitted to assure how these measures will be addressed.
- (3) The following temporary erosion control measures shall be used during construction: silt fences and sand bags.
- (4) One year after project completion, a report shall be submitted to the Executive Director to demonstrate how the project site has performed after the first winter rainy season.

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

3. Landscaping Plan. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit to the Executive Director for review and written approval a detailed landscape plan indicating the type, size, extent and location of all plant materials, the proposed irrigation system and other landscape features. Said plan shall be in substantial conformance with the plans submitted with this application by the Metropolitan Wastewater Department date stamped 8/27/04, and shall indicate that only drought tolerant, native or non-invasive plant species shall be utilized for the proposed hydroseed mix.

The permittee shall undertake development in accordance with the approved landscape plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without an amendment to

this coastal development permit unless the Executive Director determines that no amendment is legally required.

IV. Findings and Declarations.

The Commission finds and declares as follows:

1. Detailed Project Description. The proposed work includes the installation of several tie-back anchors approximately 100 feet long into the bluff face for purposes of seismically retrofitting two 84-inch outfall penstocks (pipes) located on a coastal bluff face at the Point Loma Wastewater Treatment Plant. Also proposed is minimal grading to provide a footing for a grade beam/tieback anchor. The project site is located at the northern end of the plant site and is inland of a paved area adjacent to the ocean. The penstock pipes are pipes that discharge treated effluent down the face of the bluff and then out to sea.

Access to the Point Loma Treatment Plant is gained from an existing roadway (Gatchell Road) which also provides access to a public tidepool area associated with the Cabrillo National Monument, naval facilities and a Coast Guard station and lighthouse. Gatchell Road is commonly referred to as the "South Access Road" by the City treatment plant staff. The road extends in a southerly direction off Cabrillo Memorial Drive and descends the steep, western face of the peninsula toward the Coast Guard Point Loma Lighthouse entrance, at which point it makes a hairpin turn and then continues in a northern direction to the treatment plant. Just past the security gate entrance to the plant site, there are three primary roads on which the majority of the existing treatment plant improvements are situated. First Street is the road furthest to the west and closest to the coastal bluffs. Second Street is more inland to the east, and Third Street is the easternmost street. The proposed improvements will be situated between First Street and the lower access road commonly referred to as the "South Access Road".

The Point Loma Wastewater Treatment Plant is located in the Peninsula community in an area that was not included in the City of San Diego's certified Local Coastal Program. As such, the Commission retains permit jurisdiction over the site at this time and the Chapter 3 policies of the Coastal Act are the standard of review.

2. Geologic Hazards and Shoreline Hazards. Coastal Act Sections 30253 and 30235 state:

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 30235

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.

The entire Point Loma Wastewater Treatment Plant is sited on a broad shelf, midway down the bluff-face from the top of the Point Loma peninsula. Some of the existing facilities are in close proximity to the bluff edge, and the outfall itself extends seaward down the bluff then underwater several miles or more out to sea. It has been documented in earlier permits for this facility that the entire facility is located in an area which is extremely environmentally and geologically sensitive. Any improvements to the facility must be reviewed carefully in order to assure that impacts do not occur to fragile coastal resources.

The applicant's consultants have investigated the seismic stability of the existing penstocks and concluded that the penstocks will fail during a design seismic event resulting in the discharge of considerable effluent into the Pacific Ocean. To address this concern, the applicant has determined that the two existing Penstock pipes (pipes that discharge treated effluent down the face of the bluff and then out to sea) need to be braced to assure they are not ruptured or displaced during an earthquake. To accomplish the bracing, an area of approximately 15' x 30' of the bluff will be graded (40 cy. of cut with a maximum 20 ft. cut slope) for purposes of providing a footing for a grade beam/tieback anchor. The seismic retrofit will provide for a tension and compression strut that anchors the 84-inch pipes to the bluff face. The strut will be tied to the bluff face by drilling a hole to a depth of about 100 feet in the bluff face and installing a high strength tiebacks encased in PVC will be installed in the holes and grouted. The graded area will then be hydroseeded with approved native vegetation. No retaining walls are proposed or necessary. The applicant has indicated that the project site is located at its closest point, 88 feet from the existing shoreline although it is constructed within the face of the original coastal bluff that existed prior to the construction of the Metropolitan Wastewater Treatment Plant in 1962. In other words, the area where the project site is located was the approximate edge of the original coastal bluff. During construction of the Point Loma Wastewater Treat Plant in 1962, the lower access road was constructed along the bluff face and a parking lot was built below the bluff for maintenance crews. Due to the infill development (i.e., access road), the project site is now located approximately 88 feet away from the ocean.

Although a site-specific geotechnical investigation has not been performed for the subject project due to the small scope of the work proposed, a number of geotechnical reports have been performed over the years for the same vicinity. These reports and project plans were reviewed by the Commission's staff coastal engineer and geologist who concluded that the proposed seismic retrofit project is necessary and will not adversely affect bluff stability in the area.

The majority of the shoreline seaward of the treatment plant is already armored consisting of an existing seawall/bluff retaining structure with the exception of a few areas. The shoreline immediately seaward of the project site has been armored with rip rap and no shoreline protection is proposed or needed in connection with the proposed improvements. Based on review of the project and input from the Commission's staff geologist and coastal engineer, the Commission finds the proposed project to be the least environmentally damaging alternative.

In summary, the two existing penstocks pre-date the Coastal Act and are necessary to continue discharge of treated effluent from the wastewater treatment plant. As such, the proposed improvements to retrofit the pipes to render them safe in a seismic event will protect the penstocks which will avoid the potential for a major sewage break that would result in considerable discharge of effluent into the ocean. As such, the proposed improvements, as conditioned, are consistent with Sections 30235 and 30253

3. Water Quality. Sections 30230 and 30231 of the Coastal Act are applicable to the proposed development and state the following:

Section 30230

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic 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.

Section 30231

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.

Because the applicant is proposing to perform grading and construction on the bluff face close to the water's edge (88 feet away) to seismically retrofit two outfall pipes, there is

the potential for runoff and discharge of construction materials (fill materials and chemicals) to adversely affect coastal waters. The portion of the bluff where the proposed work will occur encompasses an approximate 400 sq.ft. area. To address this concern, the applicant has indicated that BMP measures for the proposed project will incorporate silt fencing and sand bags to prevent erosion and runoff from the project site during construction. Pursuant to the submitted plans, a number of vegetative erosion control measures will be implemented, such as landscaping, seed mixes and mulch.

Nonetheless, given the project's proximity to the water's edge, and that the work is being done in an area close to the bluffs where the soil in this location is usually made of very sandy and erodible materials, a detailed erosion control plan must be required to assure that no impacts to coastal waters occurs. It is very important that construction materials be well contained so that they are not released into the ocean. In addition, it is important that the project does not result in new erosion features that will increase erosion after project completion. Therefore, the project has been conditioned for submittal of an erosion control plan that addresses the steep, exposed erodible soil conditions found around the Point Loma Treatment Plant and how the applicant proposes to prevent project-derived and construction related increases to erosion rates. Such measures include plans for containing construction materials so they are not discharged toward the ocean.

These required measures have been recommended by the Commission's water quality technical staff and have been found to be acceptable to prevent any adverse impacts to water quality from polluted runoff. The usual construction-phase BMPs will be incorporated, as well. This includes the construction-phase BMPs included in the Water Pollution Control Plan that will be part of the contract documents for the project.

Special Condition No. 2 is attached in order to ensure submittal of an erosion control plan consistent with these recommendations. Other components of the project include the installation of landscaping that will help to filter runoff from other portions of the wastewater treatment plant site. Special Condition No. 3 also requires that a landscape plan is submitted to assure that the proposed hydroseed mix is drought-tolerant, native and non-invasive. In addition, the proposed project, which will render the penstocks seismically safe, will also reduce the potential for a major sewage spill should the pipes rupture during an earthquake. Therefore, the Commission finds the proposed development, as conditioned, consistent with the cited policies of the Coastal Act.

4. Visual and Scenic Resources. Coastal Act Section 30251, provides, in part:

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....

As noted earlier, the project encompasses the retrofitting of two outfall penstocks so that they will be seismically safe. Minor grading of the project site will occur for purposes of creating a pad to secure the tiebacks. However, the majority of the work is proposed to be below grade inside the coastal bluff. In addition, there is an existing staircase that transcends the bluff at this location which provides access from First Street (near the North Operations Building) to the Hydro-electrical building adjacent to the project site. As noted in the previous finding, a portion of this stairway will be demolished and then re-built in its same location. Since some of the grading proposed for the footing for the tiebacks and seismic retrofit of the penstocks will be located under the stairway, after it is rebuilt, it will partially obscure the location of the proposed grading and repair work that is proposed pursuant to this permit. After the work is completed, the bluff face will be hydroseeded with approved native vegetation which will serve to further improve the visual quality of the project site. The proposed improvements will be compatible with the character of the surrounding area.

Although the treatment plant site is visible from the west by off-shore ships and boats and other recreational uses, the proposed improvements are minor in nature and will not be visible from offshore. In summary, the proposed seismic retrofit project will not impact existing public views toward or from the ocean or scenic areas and is visually compatible with the character of the surrounding area. Therefore, the project is consistent with Section 30251 of the Act.

5. Shoreline Access. Coastal Act Section 30211 provides:

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.

In addition, Section 30212 states, in part:

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

- (1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources,
- (2) adequate access exists nearby, ...

Currently, there is no direct public access to the shoreline from the plant site. At the wastewater treatment plant, the shoreline presently consists of rocky headlands interspersed with the previously constructed revetments. Due to the revetments and the rocky headlands, lateral access opportunities have been relatively non-existent since the time of plant construction. Also, due to the nature of the sewage treatment facility, public use of the area is restricted. With the proposed improvements, physical shoreline access by the public will not be reduced beyond that which currently exists.

Additionally, to the north of the project site are Navy owned lands which prohibit public access along the shoreline. To the south is the Cabrillo National Monument which encourages public access to the tip and westerly side of Point Loma. Parking lots and shoreline viewing areas are available at the Monument and along the access road south of the treatment plant facility, but only limited access to the shoreline is allowed because of the sensitive marine resources found at the base of the bluffs. The Monument offers guided tours of the tide pools at the base of the bluffs which allows the public the opportunity to view inter- and sub-tidal marine life.

With regard to potential construction impacts, none are expected to occur. Access to the treatment plant and other facilities, etc. will be required to remain open. Staging of equipment will occur on-site. Therefore, the Commission finds the proposed project fully consistent with Sections 30211 and 30212 of the Act.

6. Local Coastal Planning. The Point Loma Wastewater/Sewage Treatment Plant is located within an unzoned geographic area included in the Peninsula Community Plan segment of the City of San Diego Local Coastal Program where it has existed since 1963. This area was not included in the City of San Diego's certified Local Coastal Program, and the Commission retains permit jurisdiction over the site at this time. In addition, the Peninsula LCP Land Use Plan acknowledges ongoing maintenance, and assumes some potential future improvements. However, the proposed development would be in keeping with the LUP policy of maintaining and enhancing public services. In addition, the Commission has found that the proposed development, as conditionally approved, will be consistent with the policies in Chapter 3 of the Coastal Act. Therefore, the Commission finds that approval of the proposed project, as conditioned, will not result in adverse impacts to coastal resources nor prejudice the ability of the City of San Diego to continue implementation of its fully certified LCP or to extend the coverage of its LCP over this area.

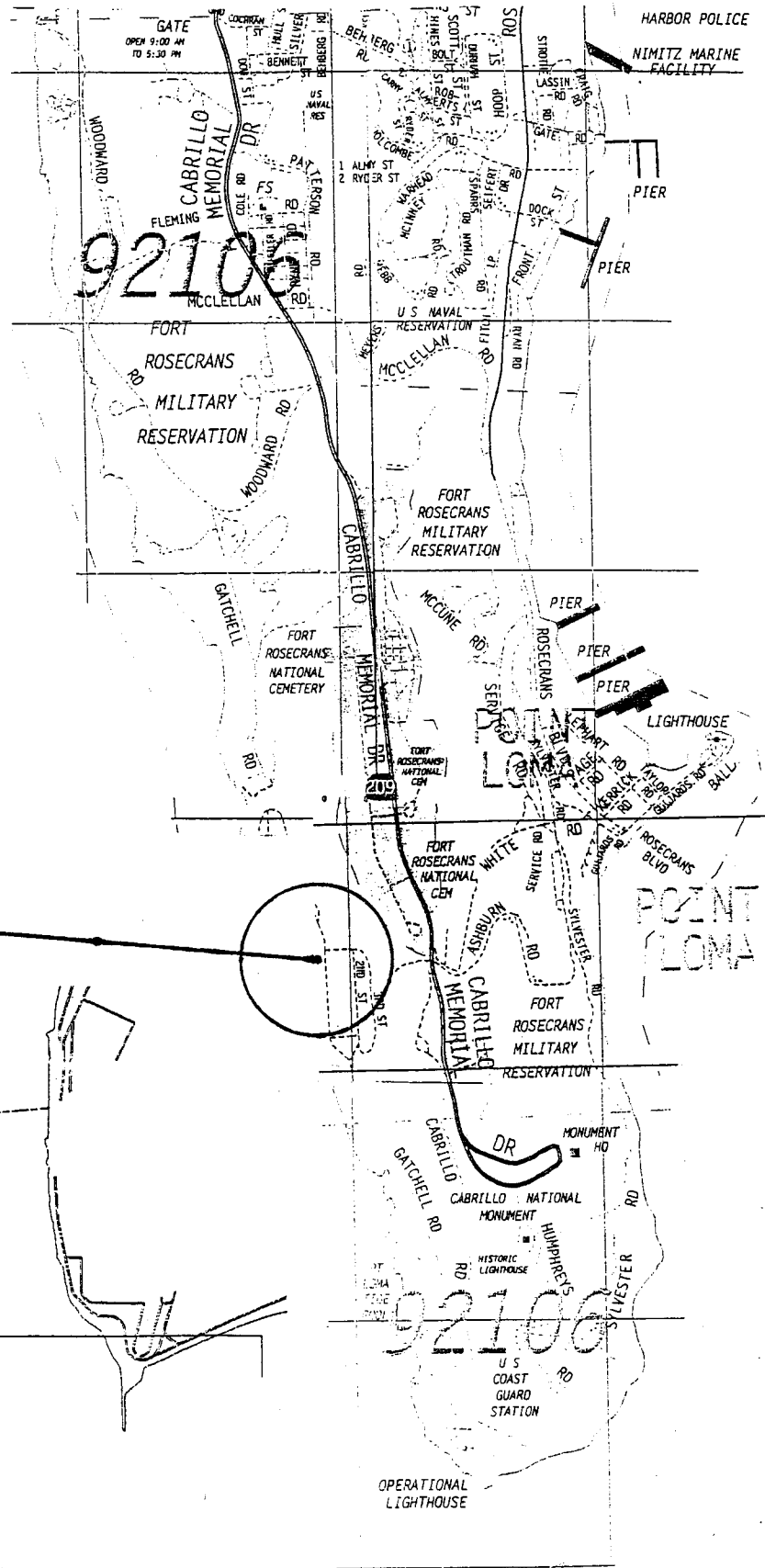
7. California Environmental Quality Act (CEQA). Section 13096 of the Commission's Code of Regulations requires Commission approval of Coastal Development Permits to be supported by a finding showing the permit, as conditioned, to be consistent with any applicable requirements of the California Environmental 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 proposed project has been conditioned in order to be found consistent with the geologic hazard, water quality, shoreline hazard and public access policies of the Coastal Act. Mitigation measures, including conditions addressing conformance with submitted plans for Best Management Practices/erosion control/water quality, will minimize all adverse environmental impacts. As conditioned, there are no feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impact which the activity may have on the environment. Therefore, the Commission finds that the proposed project is the least environmentally-damaging

feasible alternative and is consistent with the requirements of the Coastal Act to conform to CEQA.

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.



Project Site

Pt. Loma Treatment Plant

South Access Road

Cabrillo Memorial Drive

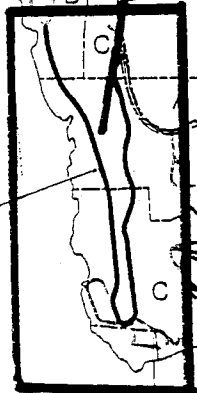
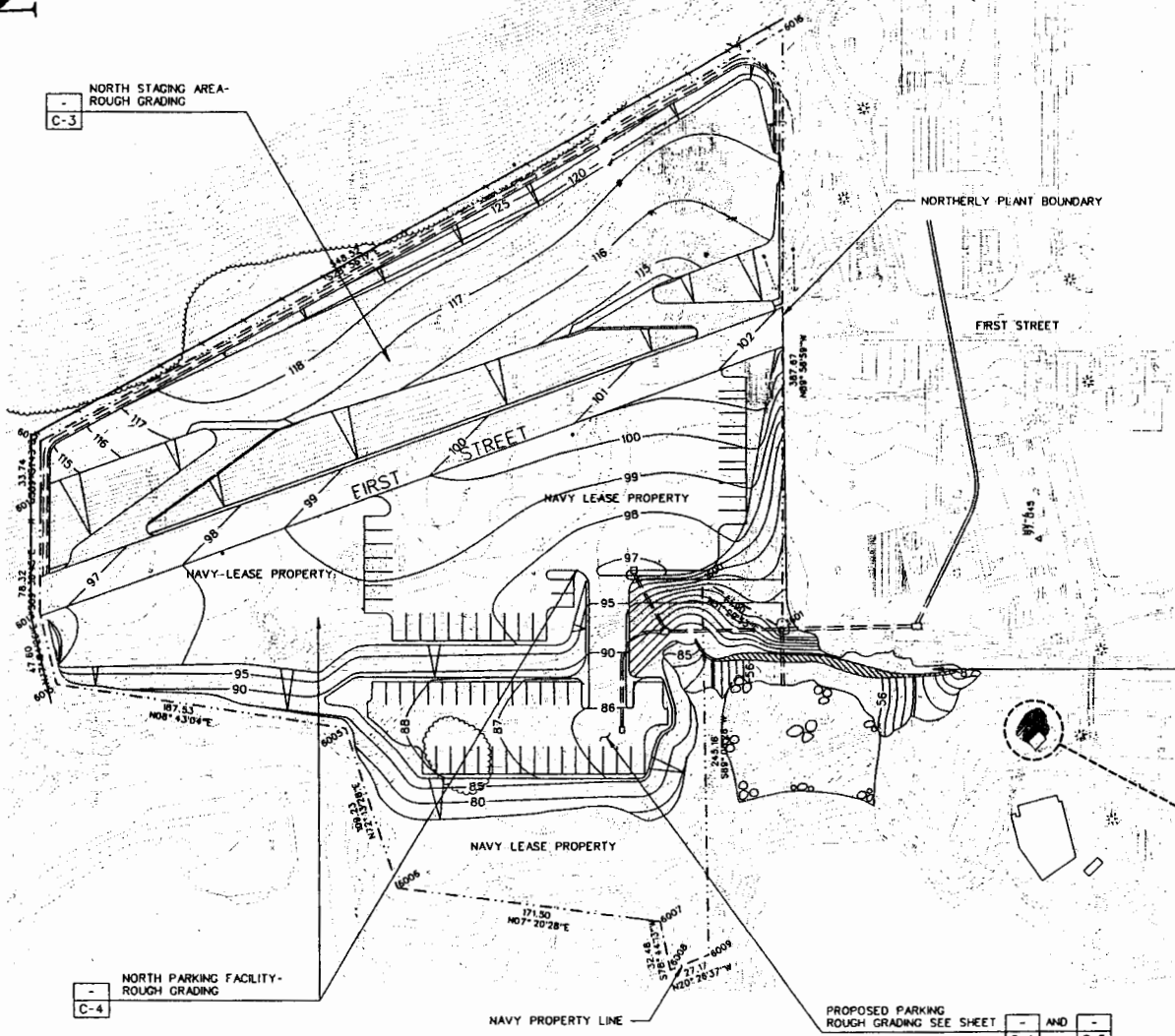


EXHIBIT NO. 1
APPLICATION NO.
6-04-94
Location Map



C-3

C-4

C-4 AND C-5

FOR PHASE 1 AND PHASE 2 GRADING IMPROVEMENTS SEE C-1

Proposed location of seismic retrofit project

EXHIBIT NO. 2
APPLICATION NO.
6-04-94
Site Plan
California Coastal Commission



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ENGINEERS AND GEOLOGISTS
1188 HURPHY CANYON ROAD, SUITE 100
SAN DIEGO, CA 92103 (619) 613-0900

10-11
FIGURE NUMBER
1
PROJECT NUMBER
2256

SITE PLAN

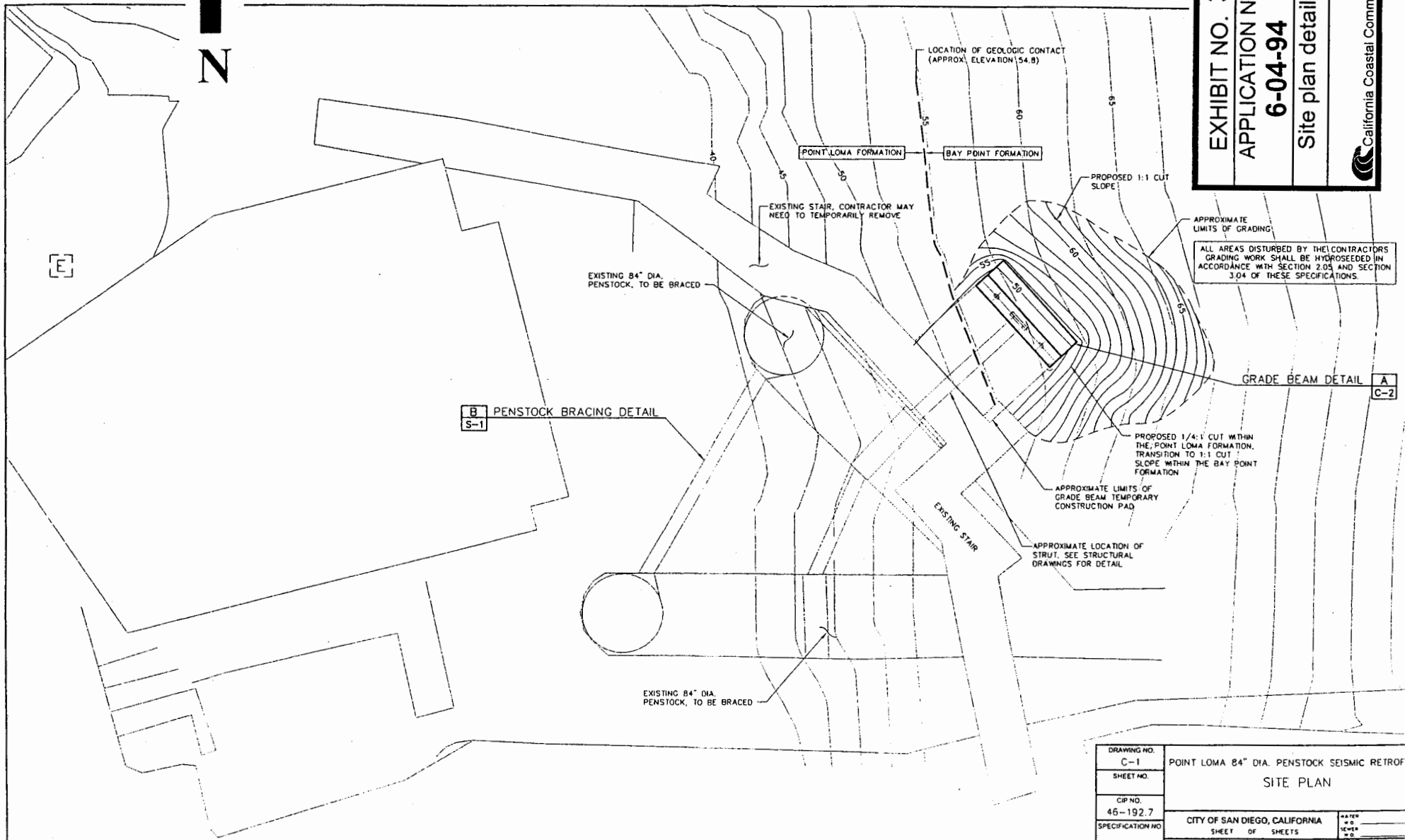
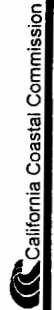


EXHIBIT NO. 3
APPLICATION NO.
6-04-94
Site plan details



ALL AREAS DISTURBED BY THE CONTRACTORS GRADING WORK SHALL BE HYDROSEEDDED IN ACCORDANCE WITH SECTION 2.05 AND SECTION 3.04 OF THESE SPECIFICATIONS.

DRAWING NO. C-1	POINT LOMA 84" DIA. PENSTOCK SEISMIC RETROFIT	SHEET NO.	SHEET OF SHEETS	DATE	DRAWN BY	CHECKED BY	DESIGNED BY	CONTROLLED BY	LATEST CORRECTIONS
SHEET NO.									
CIP NO. 46-192.7									
SPECIFICATION NO.									

WARNING
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 IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

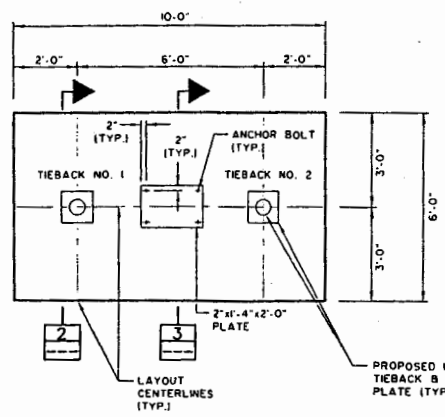
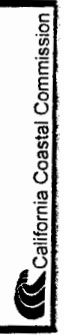
TERRACOSTA CONSULTING GROUP
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 4455 MURPHY CANYON ROAD, SUITE 100
 SAN DIEGO, CA 92123 (658) 573-6900

METROPOLITAN WASTEWATER DEPARTMENT
City of San Diego

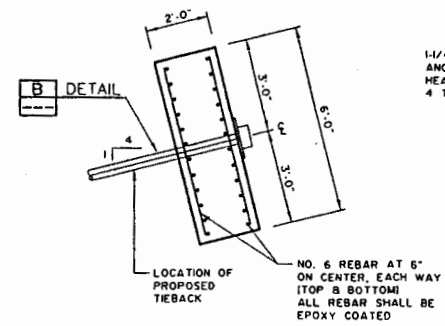


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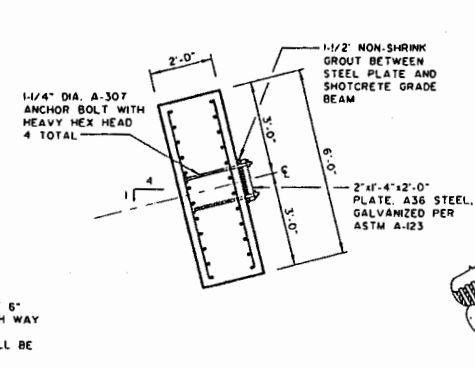
CONTRACTOR	DATE STARTED	INSPECTOR	DATE COMPLETED
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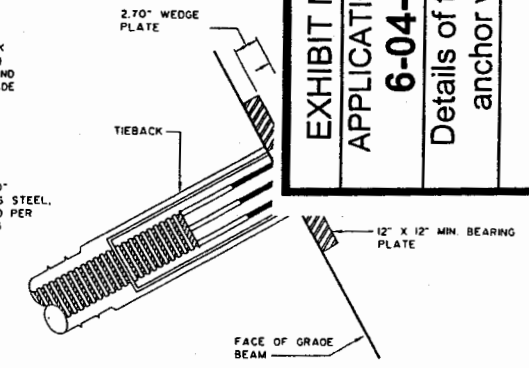
GRADE BEAM DETAIL - FRONT VIEW **A**
 NOT TO SCALE **C-1**



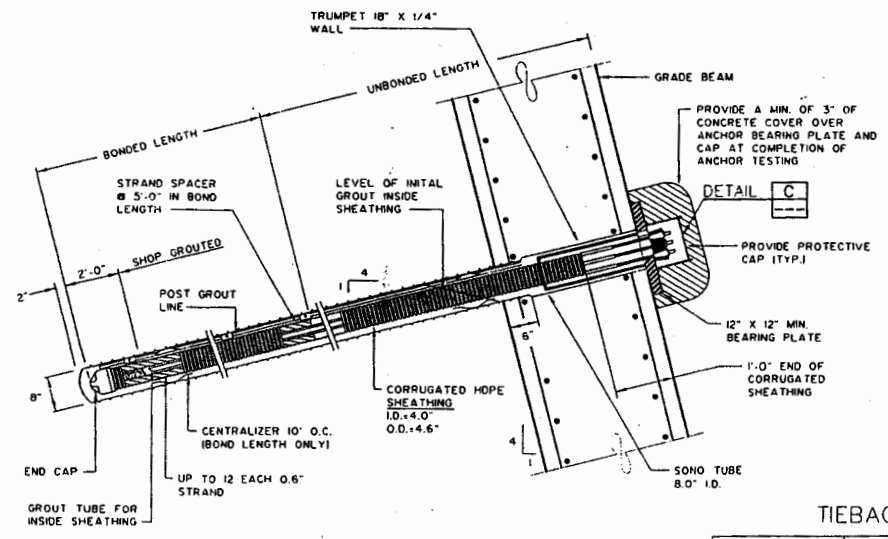
SECTION 2
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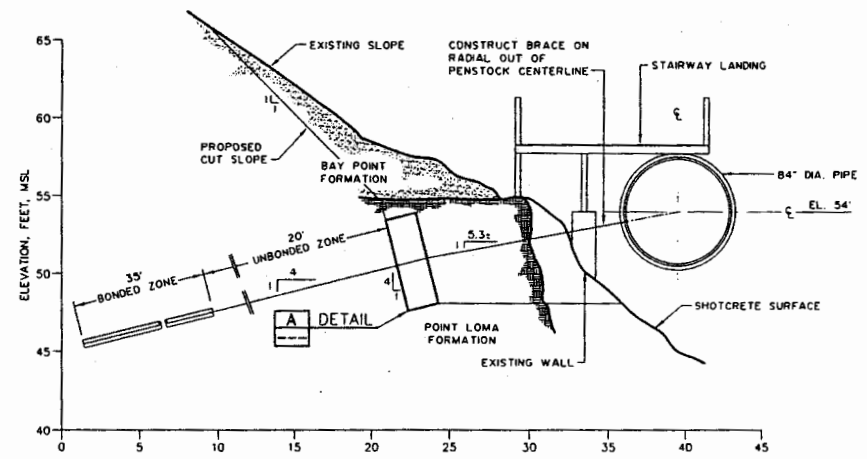
SECTION 3
 NOT TO SCALE **C**



GENERIC TIEBACK CAP DETAIL **C**
 NOT TO SCALE



TIEBACK WITH GRADE BEAM DETAIL **B**
 NOT TO SCALE



GRADE BEAM CROSS SECTION **A**
 SCALE: 1"=4" (HORIZ. & VERT.) **S-1**

NOTES:
 1. THE TIEBACK CAP SHOWN ON THIS DRAWING IS A CALTRANS GENERIC DETAIL. THE ACTUAL CAP PURCHASED FROM A SUPPLIER AND USED ON THIS PROJECT SHALL BE APPROVED BY THE ENGINEER OF RECORD.

GRADE BEAM TIEBACK ANCHOR SCHEDULE

TIEBACK NUMBER	UNBONDED LENGTH (ft)	BONDED LENGTH (ft)	NO. OF O.B STRANDS	ANCHOR BATTER	DESIGN/LOCK OFF LOAD kips
1	20	35	5	14'	120
2	20	35	5	14'	120

DRAWING NO. C-2	POINT LOMA 64" DIA. PENSTOCK SEISMIC RETROFIT
SHEET NO.	DETAILS
CIP NO. 46-192.7	
SPECIFICATION NO.	CITY OF SAN DIEGO, CALIFORNIA SHEET OF SHEETS

WARNING
 8/12/1
 IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

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 SAN DIEGO, CA 92123 (858) 573-8900

SCALE: HORIZONTAL
 VERTICAL

METROPOLITAN WASTEWATER DEPARTMENT
City of San Diego



DRAWING STATUS

NO.	DATE	REQ.	REVISION DESCRIPTION	CKD	APD	PE	EM	DMDC

PROJECT NUMBER	DATE
DESCRIPTION	BY
APPROVED DATE	FILED
DESIGN ENGINEER	
CONTROL/REGISTRATION	
LOWEST COMPETENT	
CONTRACTOR	DATE STARTED
INSPECTOR	DATE COMPLETED

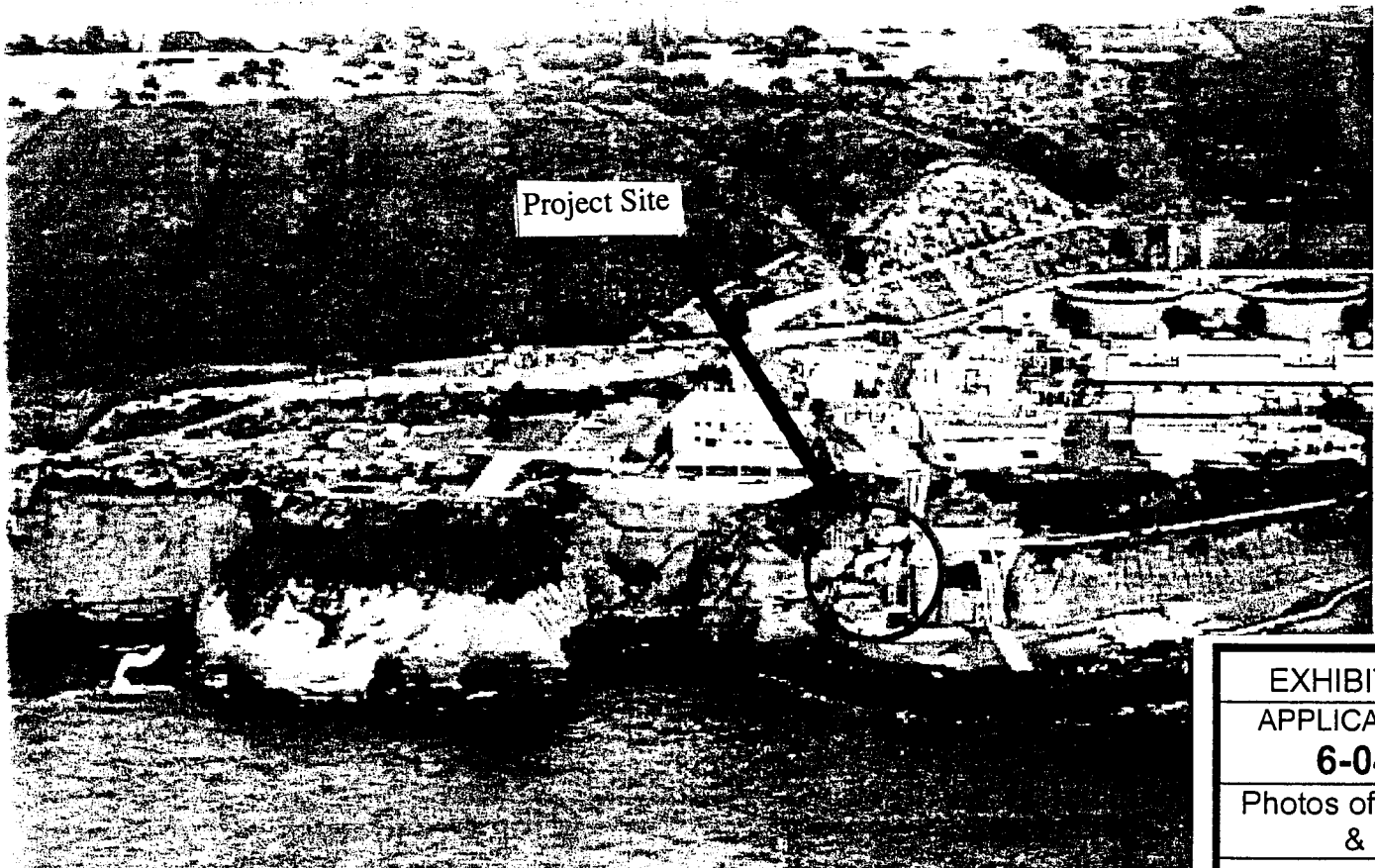
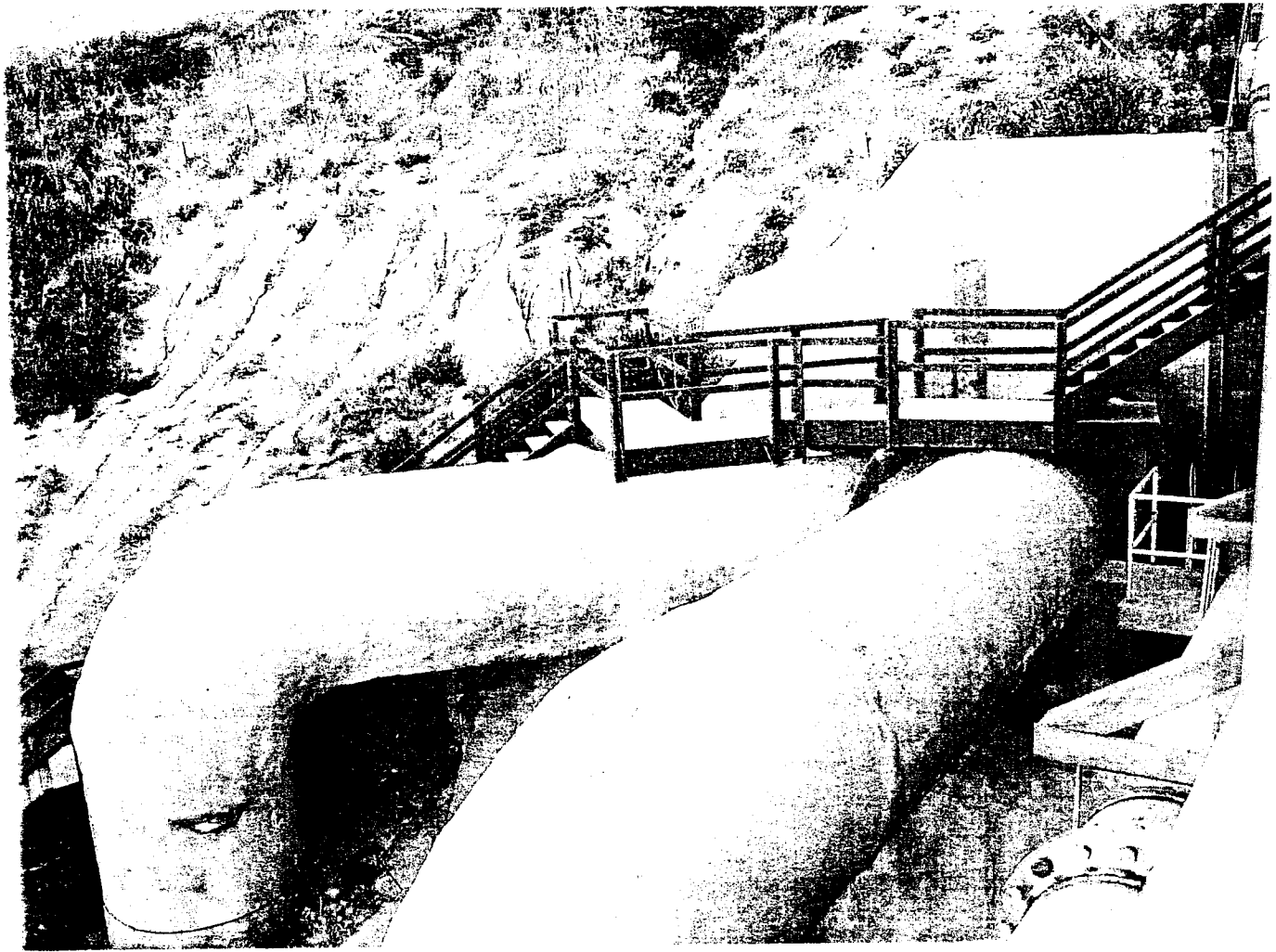



EXHIBIT NO. 5
APPLICATION NO.
6-04-94
Photos of penstocks
& site

 California Coastal Commission

