

CALIFORNIA COASTAL COMMISSION

South Coast Area Office
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**Item W21a**

Filed: April 28, 2009
49th Day: June 16, 2009
180th Day: January 23, 2010
Staff: Liliana Roman-LB
Staff Report: November 20, 2009
Hearing Date: December 9-11, 2009
Commission Action:

STAFF REPORT: REGULAR CALENDAR

APPLICATION NUMBER: 5-09-083

APPLICANT: City of San Clemente, Attn: Tom Bonigut, Public Works

PROJECT LOCATION: Plaza A La Playa Channel Outlet (adjacent to 2310 Plaza a la Playa), San Clemente, Orange County

PROJECT DESCRIPTION: Construction of an approximately 100 linear feet by 2 feet wide and 10-14 feet tall flood wall adjacent to the downstream end of the existing Plaza a la Playa concrete drainage channel at the mouth of the Riviera Canyon

LOCAL APPROVALS RECEIVED City of San Clemente Planning Division Approval-in-Concept dated April 2009

SUBSTANTIVE FILE DOCUMENTS: City of San Clemente Certified Land Use Plan (LUP), Delineation of Jurisdictional Waters, Plaza La Playa Channel Floodwall Construction Project, City of San Clemente, CA by RBF Consulting dated February 20, 2009; Draft Geotechnical Investigation Report, Plaza a la Playa Storm Channel Modifications, San Clemente, CA by Earth Mechanics, Inc. dated January 20, 2006; Biological Constraints Survey for the Plaza la Playa Flood Wall Construction Project Site in the City of San Clemente, O.C., CA by BonTerra Consulting dated April 3, 2009.

SUMMARY OF STAFF RECOMMENDATION:

Staff is recommending **APPROVAL** of the proposed project with seven (7) special conditions, which require 1) compliance with construction-related best management practices (BMPs), 2) cement slurry BMPs; 3) color and texture plan; 4) submittal of final plans; 5) staging area for construction; 6) timing of construction and 7) re-vegetation areas disturbed by construction. The primary issues associated with this development are flood control, public access and visual impacts.

The subject application was scheduled in September 2009 on the consent calendar but was removed due to Commissioners concerns regarding the height of the proposed wall and its location within a public easement. The applicant has submitted an alternatives analysis that considered locating the wall higher up on the slope while leaving more vegetated slope between the channel and the wall. Due to the height of previous and anticipated flood waters, the overall top elevation of the wall must be fixed at the proposed height. If the wall height were lower even at a higher elevation on the slope it would not serve its intended flood control purpose. Also, the City has

explained and Commission staff's coastal engineer has concurred, that relocating the wall higher on the slope so that additional vegetated slope could be preserved between the channel and the wall, isn't feasible due to concerns about subsequent flood water intrusion (i.e. seepage through the unlined area) and erosion that would ultimately undermine the new wall and the existing residence. The best option from the standpoint of flood control and erosion protection is to place the wall in the location proposed. Also, since there is no riparian vegetation along the existing concrete channel, only non-native vegetation, there would be no substantial habitat benefit that would result from placing the wall higher up the slope. Therefore, Commission staff's recommendation relative to the location and height of the wall remains unchanged. The special conditions recommended by staff include visual treatment in the form of a color/texture plan to minimize the visual impact of the wall. The easement within which the floodwall would be constructed is a drainage easement and the construction of a floodwall in that easement would be consistent with its purpose.

LIST OF EXHIBITS:

1. Location Map
2. Assessors Parcel Map
3. Coastal Access Points Map
4. Coastal Canyons Map
5. Project Plans
6. Response to Visual Impact Concerns and Alternatives Analysis Including Site Photographs

STAFF RECOMMENDATION:

MOTION: *I move that the Commission approve Coastal Development Permit No. 5-09-083 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 and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. STANDARD CONDITIONS:

1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. Expiration. If development has not commenced, the permit will expire two years from the date this permit is reported to the Commission. Development shall be pursued in a diligent

manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

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

III. SPECIAL CONDITIONS:

1. Storage of Construction Materials, Mechanized Equipment and Removal of Construction Debris

The permittee shall comply with the following construction-related requirements:

- A. No construction materials, debris, or waste shall be placed or stored where it may enter the storm drain system leading to the Pacific Ocean;
 - B. Any and all debris resulting from construction activities shall be removed from the project site within 24 hours of completion of the project;
 - C. Erosion control/sedimentation Best Management Practices (BMP's) shall be used to control sedimentation impacts to coastal waters during construction. BMPs shall include, but are not limited to: placement of sand bags around drainage inlets to prevent runoff/sediment transport into the storm drain system and a pre-construction meeting to review procedural and BMP guidelines;
 - D. Construction debris and sediment shall be removed from construction areas each day that construction occurs to prevent the accumulation of sediment and other debris which may be discharged into coastal waters. Debris shall be disposed of outside the coastal zone, as proposed by the applicant.
 - E. Concrete trucks and tools used for construction of the approved development shall be rinsed off-site;
 - F. Staging and storage of construction machinery and storage of debris shall not take place within the drainage channel and public Coastal Multi-Use Trail.
2. Cement Slurry Best Management Practices

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director, a Best Management Plan that effectively assures no cement slurry or other construction byproduct will be allowed to enter into coastal waters. During cement slurry application specifically, the Plan shall at a minimum provide for all cement slurry to be contained through the use of tarps or similar barriers that completely enclose the application area and that prevent cement slurry contact with beach sands and/or coastal waters. All cement slurry and other construction byproduct shall be properly collected and disposed of off-site.

3. Color and Texture Plan

- A. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit, for the review and approval of the Executive Director, a plan demonstrating that the color and texture of the structure will be compatible with the adjacent canyon vegetation. The plan shall demonstrate that:
1. the structure will be colored/constructed with concrete that has been colored with earth tones that are compatible with the adjacent canyon vegetation,
 2. white and black tones will not be used,
 3. the color will be maintained through-out the life of the structure,
 4. the structure will be textured for a natural look that better blends with the canyon vegetation
 5. drought tolerant, non-invasive vegetation may also be used if feasible to cover and camouflage the structure.
- B. The permittee shall undertake development in accordance with the approved final color and texture plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

4. Final Plans

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit final project plans to the Executive Director for review and approval. The plan shall substantially conform to the preliminary floodwall plans and shall also depict work area limits including grading area limits and indicate re-vegetation for the disturbed work areas.

5. Landscaping – Native, Drought Tolerant, Non-Invasive Plants

All areas affected by construction activities not occupied by structural development shall be re-vegetated for habitat enhancement and erosion control purposes.

Vegetated landscaped areas shall only consist of native, drought tolerant plants, which are non-invasive and appropriate to the habitat type. No plant species listed as problematic and/or invasive by the California Native Plant Society (<http://www.CNPS.org/>), the California Invasive Plant Council (formerly the California Exotic Pest Plant Council) (<http://www.cal-ipc.org/>), or as may be identified from time to time by the State of California shall be employed or allowed to naturalize or persist on the site. No plant species listed as a “noxious weed” by the State of California or the U.S. Federal Government shall be utilized within the property. All plants shall be low water use plants as identified by California Department of Water Resources (See: <http://www.owue.water.ca.gov/docs/wucols00.pdf>).

6. Construction Staging Area

- A. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the permittee shall submit a plan for the review and approval of the Executive Director which indicates that the construction staging area(s) and construction corridor(s) will avoid impacts to public access, to beach areas or to sensitive habitat areas.
1. The plan shall demonstrate that:
 - (a) Construction equipment or activity shall not occur outside the staging area
 - (b) Public parking areas shall not be used for staging or storage of equipment
 - (c) Beach areas shall not be used as staging areas
 - (d) The staging area for construction of the project shall not obstruct vertical or lateral access to the beach.
 2. The plan shall include, at a minimum, the following components:
 - (a) A site plan that depicts:
 - (1) Limits of the staging area(s)
 - (2) Construction corridor(s)
 - (3) Construction site
 - (4) Location of construction fencing and temporary job trailers, if any
- 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.

7. Timing of Construction

Construction activities authorized pursuant to Coastal Development Permit #5-09-083 shall not obstruct public beach access from the Riviera Beach Accessway or public access to the San Clemente Multi-Use Coastal Trail during the peak use season, defined as the period starting the day before the Memorial Day weekend and ending the day after the Labor Day weekend of any year. Construction shall take place during the off-peak season to the most practicable extent possible. In the event that closure of the Riviera Beach Accessway is temporarily required for construction purposes, signage shall be provided directing the public to the nearest public beach accessway and such a closure shall only be permitted during non-holiday, mid-week periods that are outside the peak use season. The period of closure shall be minimized.

IV. FINDINGS AND DECLARATIONS:

The Commission hereby finds and declares:

A. PROJECT LOCATION AND DESCRIPTION

Project Location

The proposed project is located between the first public road and the sea within the Plaza La Playa/Riviera Coastal Canyon shallow concrete channel which runs northwesterly of Plaza a la Playa in the City of San Clemente, Orange County (Exhibits 1 & 2). The proposed project site is within a 10 foot wide City owned drainage easement adjacent within the single family property at 2310 Plaza a la Playa. The site is designated as Residential Low Density in the certified Land Use Plan. Plaza a la Playa is a double-ended cul-de-sac located in a residential neighborhood

approximately two (2) miles south (downcoast) of the municipal pier and 1/5th mile north (upcoast) of Calafia Beach Park. The channel is a shallow 10 feet wide and approximately 400 feet long concrete channel which receives surface water runoff from an upstream watershed tributary which is conveyed through a storm drainage system that discharges from an 72-inch pipe at the mouth of the Riviera Coastal Canyon into the concrete channel before discharging into the Pacific Ocean at an existing culvert under the railroad tracks and onto Riviera Beach.

The nearest public beach access is available at the Riviera access point located at the lower reach of the channel at an existing culvert under the railroad tracks that serves as the discharging point for the drainage and as a pedestrian beach access way onto Riviera Beach (Exhibit 3); this access point primarily serves adjacent residential areas. The San Clemente Coastal Trail runs parallel to the beach in this area and the proposed development would be visible from the trail.

The City has designated all coastal canyons, including the Riviera Canyon as environmentally sensitive habitat areas (ESHA), as depicted in Exhibit 4. According to the applicant's analysis, the drainage channel at the bottom of the Riviera Coastal Canyon is considered a jurisdictional wetland by the Commission's single element criteria.

Project Description

During large storm events, the lowest (downstream) reach of the concrete channel floods because it cannot contain flows from large storm events and because the existing culvert is undersized. The lowest reach of the channel is at the lowest elevation level at the mouth of the coastal canyon. The City proposes to construct an approximately 100 linear feet by 2 feet wide and 10 feet – 14 feet high concrete floodwall adjacent to the existing concrete channel at the downstream end on the east bank to protect a private property developed with a single family residence. Currently there is only a chain link fence along the shallow concrete channel preventing debris from entering the channel, but not providing any flood protection. The other properties along the east and west banks adjacent to the channel are at sufficiently higher elevations than the flooded water surface elevation and therefore are not in danger of flooding waters. No vegetation (native or otherwise) was identified within the drainage channel. The floodwall construction will be located outside of the streambed. The floodwall is proposed to be constructed on an existing concrete lip/curb adjacent to the eastern bank/slope.

Construction access to the site will be from either the Riviera pedestrian beach accessway off of the Plaza La Playa cul-de-sac and from the San Clemente Multi-Use Coastal Trail adjacent to the railroad right-of-way. Access to the beach trail is proposed from Boca del Canon Road approximately 0.36 mile to the northwest of the project site. The beach trail has previously been used by the City for regular maintenance and construction access. Equipment expected to be required for the construction of the floodwall include utility pick-up trucks and an excavator for the drilling of the soldier piles used for the wall support. The concrete floodwall would be poured in place pumped from a boom truck set up on the Plaza a La Playa cul-de-sac.

B. FLOOD CONTROL AND MINIMIZATION OF ADVERSE IMPACTS

Section 30236 of the Coastal Act states:

Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (1) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the floodplain is feasible and where such protection is necessary for public safety or to protect existing development...

Section 30253 of the Coastal Act states in relevant part:

New development shall:

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

The proposed project is located between the first public road and the sea within the Plaza La Playa/Riviera Coastal Canyon shallow concrete channel which runs northwesterly of Plaza a la Playa a double-ended cul-de-sac located in a residential neighborhood. The primary objectives of the proposed floodwall project are to protect existing development (i.e., a single family residence) from flooding and ensure that the flood control capacity of the system is equal to or greater than the existing condition. Project Plans are included in Exhibit #5. The applicant submitted a Preliminary Design Report with a hydrology and channel hydraulics analysis and structural calculations for the wall design. These were reviewed by the Commission's staff coastal engineer, who concurred with the findings and wall design. The proposed height and location of the flood wall are designed and sited to assure flood control and avoid significant erosion of the canyon slope that may undermine the foundation of the existing residence.

An alternative to the proposed project that was reviewed by the applicant to lessen the exposed height of the wall was to move the wall away from the channel and embed it further up the slope located between the channel and the house. However, due to flood protection requirements, the actual constructed height of the wall would still be required to remain the same even at a higher elevation up the slope. Moving the wall away from the channel would create an earthen gap between the wall and the channel. This gap would be subject to water infiltration that may result in water seeping under the wall and rising to the flood level in the channel; thereby, jeopardizing the wall's purpose of flood protection. Furthermore, the earthen slope between the channel and the wall has the potential to be washed away or fail during high storm flows and therefore, the slope could not be considered support for the wall or adjacent house, thus requiring additional drilling into the slope and expanded foundation elements for support of the wall and house. The proposed floodwall design with the wall immediately behind the channel wall makes it easier to seal the gap to insure against seepage into the adjacent slope, thereby neither creating nor contributing significantly to erosion, geologic instability, or destruction of the site or surrounding area and actually protects the slope that is the foundation for the existing single-family residence.

The submitted plans are 60% progress plan prints, therefore, **Special Condition #4** is imposed requiring submittal of final plans that substantially conform to the plans already submitted prior to the issuance of permit and subject to the review and approval of the Executive Director.

C. HABITAT

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.*

San Clemente's certified Land Use Plan (LUP) discusses the importance of coastal canyons and states:

In most cases, coastal canyons are designated for natural open space, which limits potential development and helps to ensure preservation.

Policy VII.12 of the certified LUP states:

Encourage activities which improve the natural biological value, integrity and corridor function of the coastal canyons through vegetation restoration, control of alien plants and animals, and landscape buffering.

Policy XV.13 of the certified LUP states:

The removal of native vegetation and the introduction of non-native vegetation in the canyons shall be minimized. The use of native plant species in and adjacent to the canyons shall be encouraged.

Coastal Canyon Habitat

The City has designated all coastal canyons, including this Riviera Canyon as environmentally sensitive habitat areas (ESHA) as coastal canyons act as open space and are potential wildlife habitat, as well as potential corridors for native fauna. However, decreases in the amount of native vegetation due to displacement by non-native vegetation have resulted in cumulative adverse impacts upon the habitat value of the canyons. As such, the quality of canyon habitat must be assessed on a site-by-site basis. The canyon portion that is part of the City's 10' drainage easement within the 2310 Plaza a la Playa private property lot where the work is proposed is degraded due to the presence of non-native ornamental plant species. No portion of the site contains resources that rise to the level of ESHA. The project site is not likely to be considered a significant wildlife movement corridor on a regional basis and the proposed project will not impact the migration of wildlife species.

The adjacent eastern canyon slope is vegetated with ornamental non-native plant species within the 10' drainage easement. The western slope is also vegetated with ornamental non-native plants such as iceplant and eucalyptus. Vegetation at the base of the canyon slope at the location of the proposed floodwall also consists of a dominance of non-native species and some invasive plants such as Arundo. The footprint of the proposed concrete floodwall will be mostly confined to the existing 10' wide drainage easement including the required approximately 220 cubic yards of back fill to support the floodwall. The fill will be between the flood wall and canyon slope. Fill within the canyon is allowable for a flood control project. The applicant is proposing to revegetate disturbed areas disturbed by construction activity but has not submitted a re-vegetation plan for that work. Revegetation is needed to ensure that any existing habitat is not degraded and for erosion control purposes consistent with the requirements of Section 30231 of the Coastal Act. As the San Clemente certified LUP advocates the preservation of native vegetation and discourages the introduction of non-native vegetation in coastal canyons, the Commission finds that the

applicant must re-vegetate the impacted work area for erosion control and to improve the habitat value of the canyon. **Special Condition #7** requires the applicant re-vegetate canyon areas disturbed by grading and construction activities with drought tolerant plant species native to Orange County coastal canyons. Therefore, the Commission finds the development, as conditioned, to be consistent with Section 30231 and 30240 of the Coastal Act.

D. SCENIC AND VISUAL QUALITIES

Section 30251 of the Coastal Act states, in pertinent 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....”

The proposed development is located in a drainage channel at the mouth of the Riviera Coastal Canyon immediately adjacent to the public beach. The site is not visible from the public beach due to the berm created by a rock revetment at the OCTA railroad tracks. From the beach, only the houses on the canyon top are visible. However the site and the proposed floodwall would be highly visible when traveling southbound on the public San Clemente Multi-Use Coastal Trail (Exhibit #6). Existing vegetation would block the view of the wall for northbound trail users until they pass directly by it. For southbound trail users, the elevation of the trail is such that trail users would look down toward the wall (as opposed to up on the canyon face).

Development at this location must be sited and designed to be visually compatible with the relatively undisturbed character of the canyon slope in this area. It is also necessary to ensure that new development be sited and designed to protect views along the San Clemente Multi-Use Coastal Trail. To address the visual impact of a 10-14 foot tall concrete floodwall, the Commission imposes **Special Condition #3** requiring the proposed floodwall be colored and textured to blend into the coastal canyon vegetation and thereby avoid possible negative visual impacts. In addition to the color and texture, vegetation may also be used if feasible to cover the flood wall.

As conditions, the Commission finds the proposed development consistent with Section 30251 of the Coastal Act.

E. PUBLIC ACCESS

Section 30210 of the Coastal Act states:

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

Section 30212 of the Coastal Act states, in part:

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

(2) Adequate access exists nearby, or,

As shown in Exhibit 3, the proposed floodwall will be located between the first public road and the sea within the Riviera drainage channel, directly inland of the OCTA railroad tracks.

Construction impacts, such as the obstruction of the Riviera (pedestrian railroad underpass) beach accessway, can affect the public's ability to access the adjacent beach area. Construction related impacts can be partially alleviated by limiting construction work to the off-season (fall and winter) when beach use by the public is typically low. Therefore, the City intends for construction to commence April 1, 2010 and finish prior Memorial Day weekend. As such, the proposed project should be completed prior to the peak beach use season. The City has also indicated that beach access will not be affected during construction, as all work will occur solely within an existing drainage easement on private property. Although construction access to the drainage easement will be via the Riviera public beach accessway and from the San Clemente Multi-Use Coastal Trail parallel to the beach adjacent to the railroad, neither will be closed off to the public during construction.

Although the applicant intends to complete the project prior to peak beach use season and to maintain public access during construction, there is a possibility for delay and/or unexpected construction impacts. Therefore, to guarantee that public access is maintained during peak beach use season, the Commission imposes **Special Condition #6** requiring construction to occur prior to the Memorial Day weekend and/or following the Labor Day weekend to the maximum extent practicable and requiring signage posted on site during construction to notify the public of the nearest pedestrian railroad crossing in the event that the accessway is obstructed during construction. The condition prohibits closure of any accessway during the peak beach use season. Temporary closure for minimal duration may occur during the off-peak season, if necessary. Furthermore, **Special Condition #5** requires the submittal of a project construction staging plan to ensure that the staging site does not adversely impact public access to the beach or coastal resources.

As conditioned, the Commission finds the development consistent with the public access and recreation policies of Chapter 3 of the Coastal Act.

F. WATER QUALITY

Section 30230 of the Coastal Act states, in pertinent part:

Marine resources shall be maintained, enhanced, and where feasible, restored...

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.

The proposed floodwall would be located at the bottom of a coastal canyon on an existing concrete lip/curb adjacent to the eastern bank/slope outside of the channelized streambed. Construction of

the floodwall is not expected to modify the channel hydrology, since no increase in imperviousness or changes to land use within the watershed will be created because of its construction. Hydrology and peak discharge flow rates will be the same for existing and for finished project conditions. Additionally, the channel hydraulics analysis concludes that a comparison of the water surface elevations between existing and project conditions show that the construction of the wall will have an insignificant effect on the channel hydraulics. Therefore, the completed project will not have any adverse changes on existing conditions that may directly impact marine resources.

To protect water quality during construction, the applicant proposes and **Special Condition #1** requires the applicant to implement best management practices (BMPs) designed to avoid temporary impacts to the channelized streambed by minimizing erosion and preventing soil and debris from entering the channel and coastal waters during construction. Furthermore **Special Condition #2** requires the applicant comply with cement slurry best management practices (BMPs) to avoid adverse impacts to coastal waters during construction.

As proposed and conditioned, the project will minimize possible adverse impacts on coastal waters to such an extent that it will not have a significant impact on marine resources, biological productivity or coastal water quality. Therefore, the Commission finds that the proposed development, as conditioned, conforms to Sections 30230 and 30231 of the Coastal Act regarding the protection of water quality to protect marine resources, promote the biological productivity of coastal waters and to protect human health.

G. LOCAL COASTAL PROGRAM

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 that conforms to Chapter 3 policies of the Coastal Act. The Commission certified the Land Use Plan for the City of San Clemente on May 11, 1988, and certified an amendment approved in October 1995. On April 10, 1998, the Commission certified with suggested modifications the Implementation Plan portion of the Local Coastal Program. The suggested modifications expired on October 10, 1998. The City re-submitted on June 3, 1999, but withdrew the submittal on October 5, 2000.

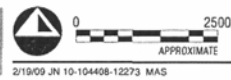
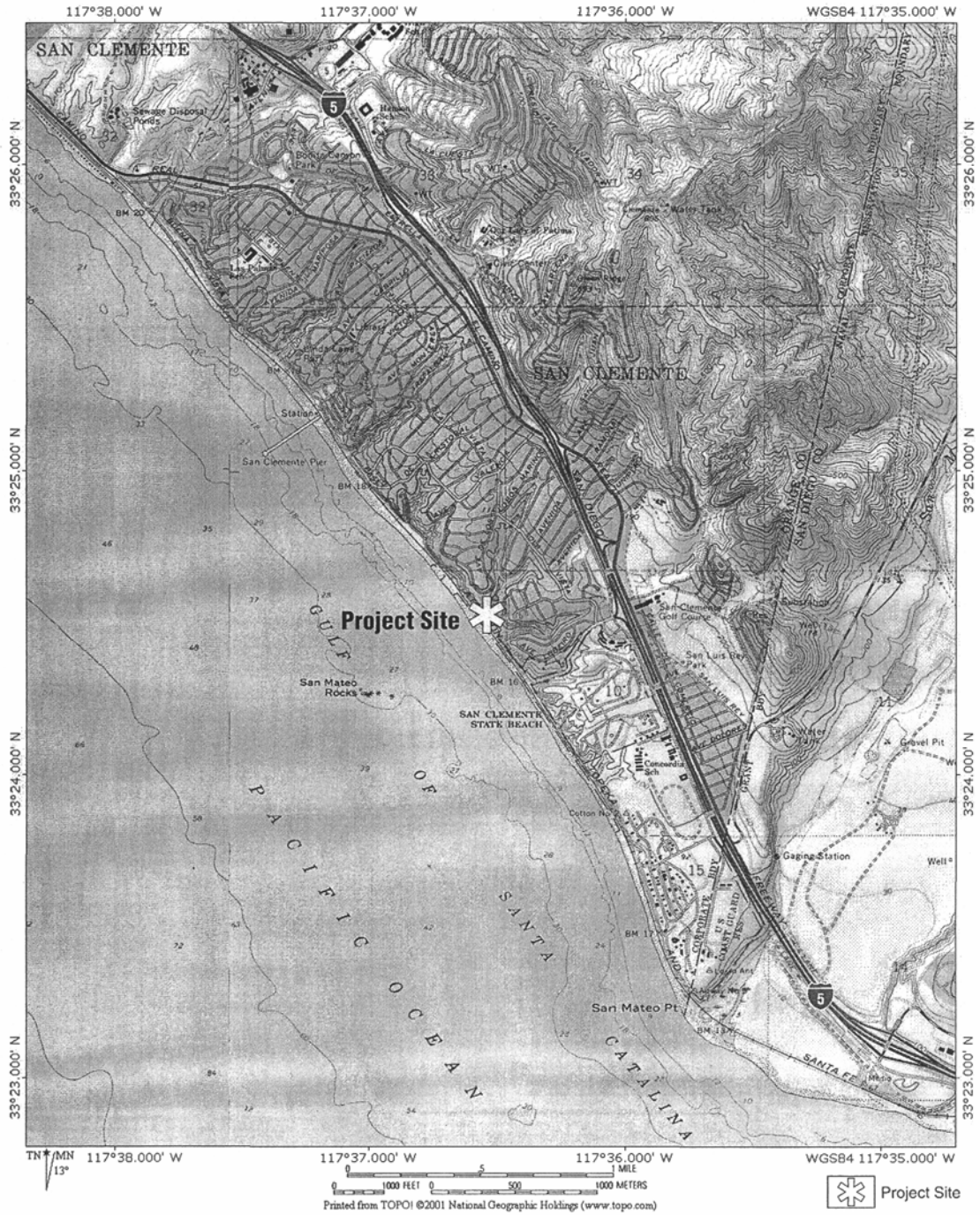
The proposed development, as conditioned, is consistent with the policies contained in the certified Land Use Plan. Moreover, as discussed herein, the development, as conditioned, is consistent with the Chapter 3 policies of the Coastal Act. Therefore, approval of the proposed development will not prejudice the City's ability to prepare a Local Coastal Program for San Clemente that is consistent with the Chapter 3 policies of the Coastal Act as required by Section 30604(a).

H. CONSISTENCY WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Section 13096 of Title 14 of the California Code of Regulations requires Commission approval of Coastal Development Permits to be supported by a finding showing the permit, 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 that the activity may have on the environment.

The City of San Clemente is the lead agency for purposes of CEQA compliance. The City determined that the project is categorically exempt from CEQA. However, the Commission adopts additional mitigation measures including: special conditions related to compliance with

construction-related best management practices (BMPs), cement slurry BMPs; color and wall texturization plan; submittal of final plans; staging area for construction; timing of construction and re-vegetation of areas disturbed by construction. As conditioned, the proposed project is found consistent with the public access, water quality, biological and visual resource protection policies of the Coastal Act and there are no feasible alternatives or additional feasible mitigation measures available which would substantially lessen any significant adverse effect, which the activity may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified impacts, is the least environmentally damaging feasible alternative and can be found consistent with the requirements of the Coastal Act to conform to CEQA.



COASTAL COMMISSION

PLAZA LA PLAYA CHANNEL FLOODWALL CONSTRUCTION
 • JURISDICTIONAL DELINEATION

Site Vicinity

EXHIBIT # 1
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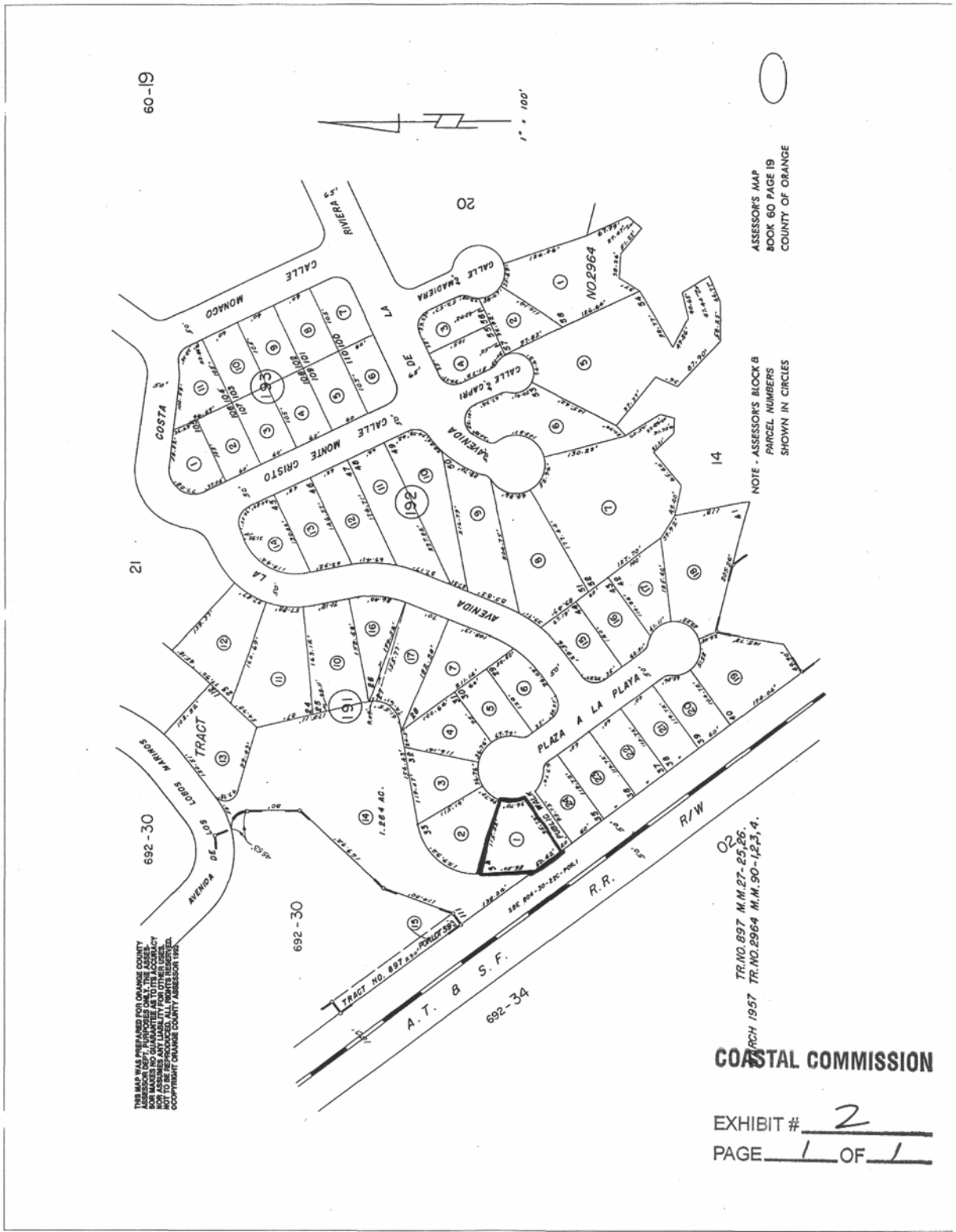
COASTAL COMMISSION

PLAZA LA PLAYA CHANNEL FLOODWALL CONSTRUCTION
• JURISDICTIONAL DELINEATION
Project Site



not to scale
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EXHIBIT # 1
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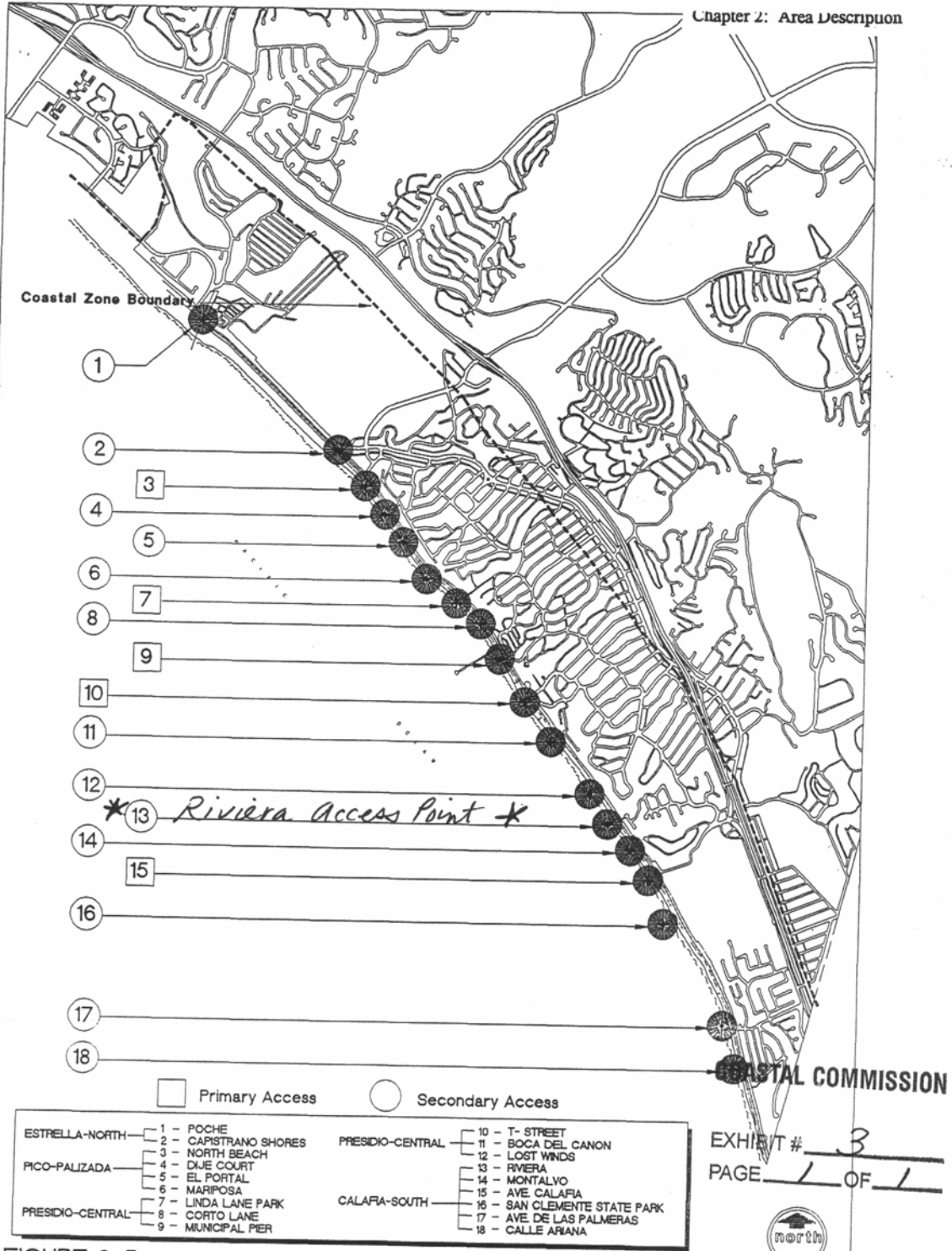
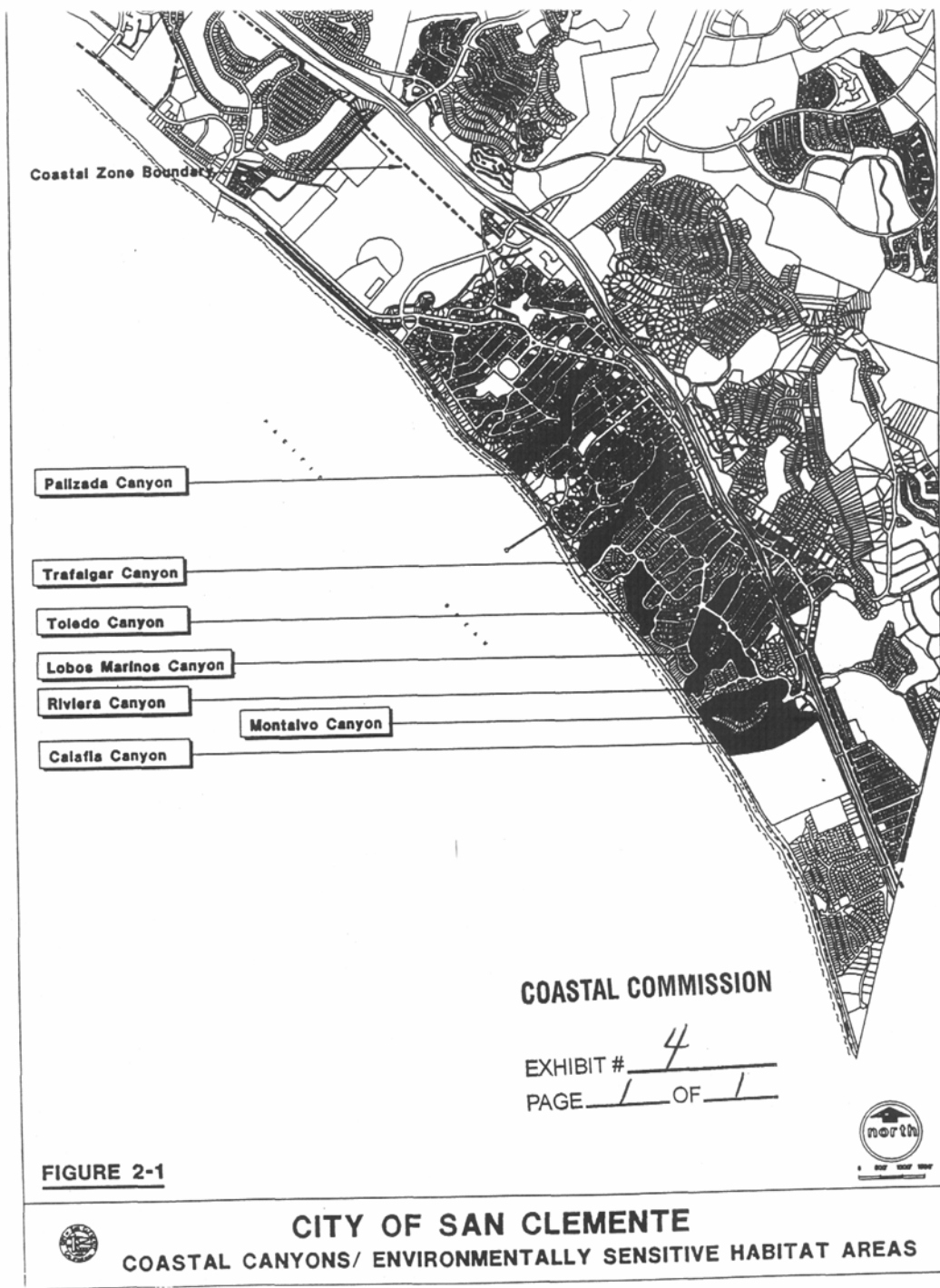
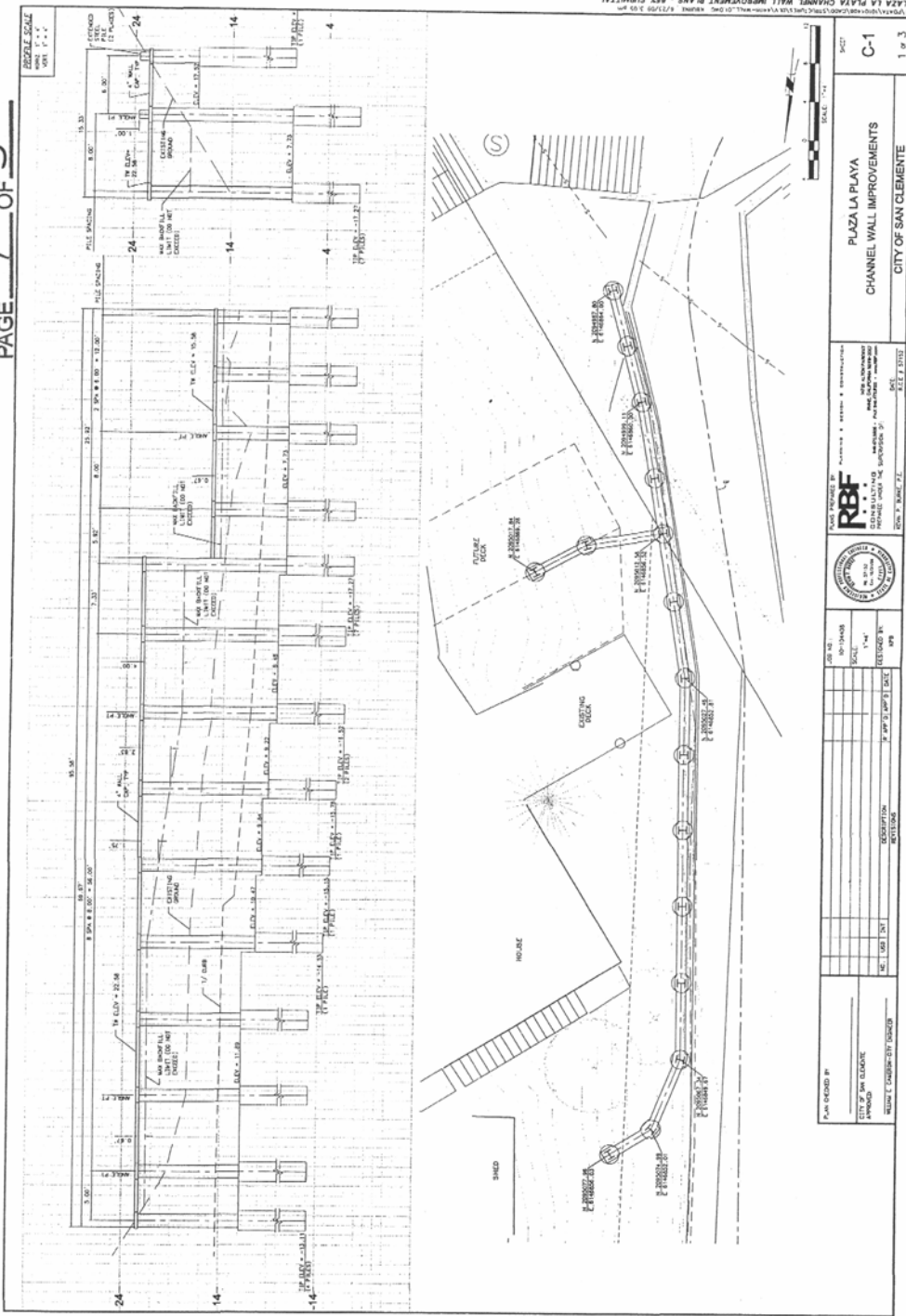


FIGURE 2-5



COASTAL COMMISSION

EXHIBIT # 5
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PLAZA LA PLAYA CHANNEL WALL IMPROVEMENT PLANS - 85% SUBMITTAL
 DATE: 8/17/09 3:59 PM

PLAN RECORD BY: CHECKED BY: GLOUCE DRAWN BY: GLOUCE REVISIONS:	DATE: 08/17/09 SCALE: 1"=4' SHEET: 1 OF 3	PROJECT: PLAZA LA PLAYA CHANNEL WALL IMPROVEMENTS CITY OF SAN CLEMENTE	SHEET: C-1 1 of 3
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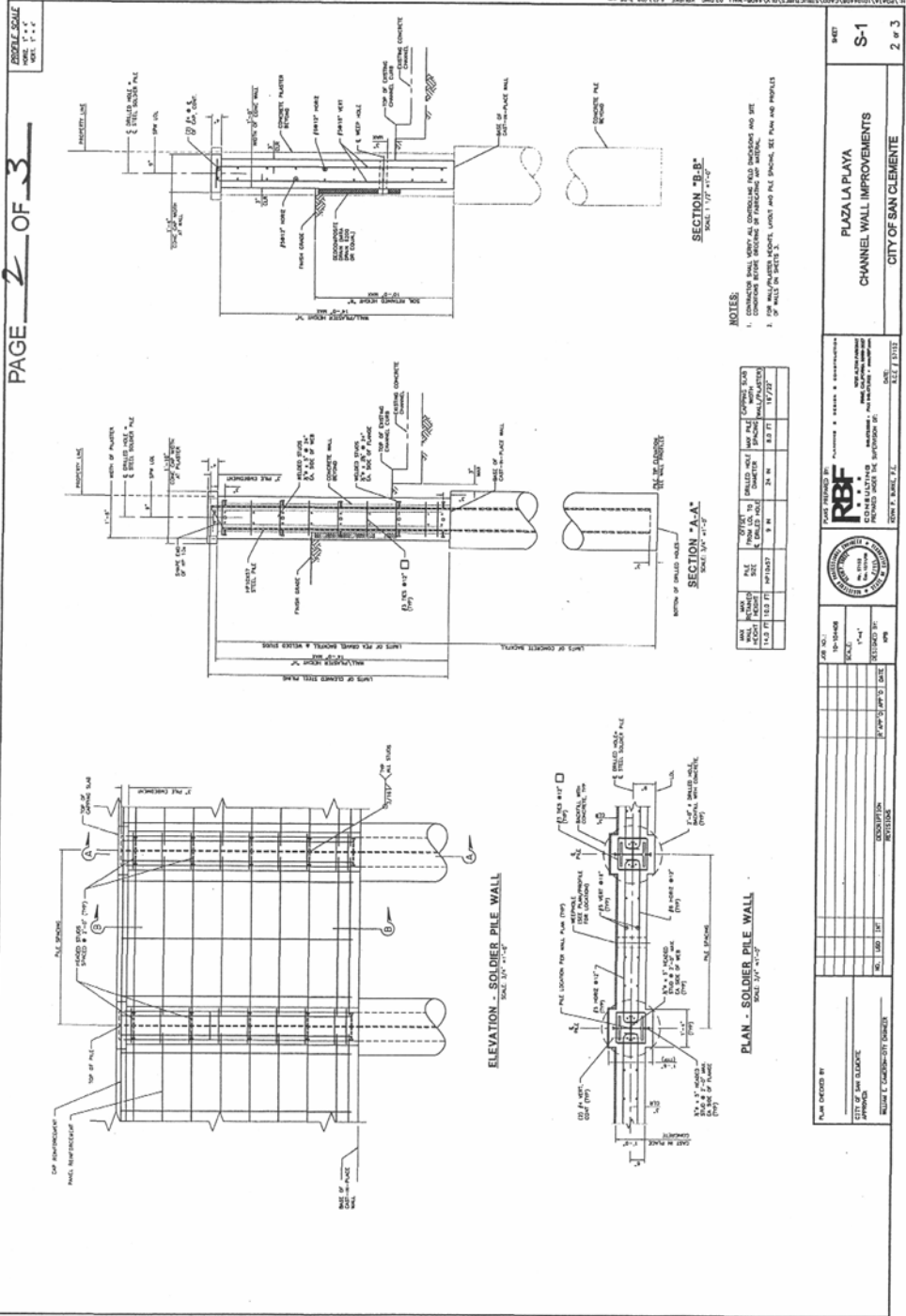
RBF
 ROBERT B. FRAZIER
 LICENSE NO. 44512
 MECHANICAL
 STATE OF CALIFORNIA

DATE: 8/17/09
 CITY OF SAN CLEMENTE

COASTAL COMMISSION

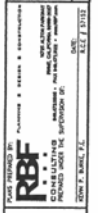
EXHIBIT # 5

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PLAZA LA PLAYA CHANNEL WALL IMPROVEMENT PLANS - BSS SUBMITTAL

PLAZA LA PLAYA
 CHANNEL WALL IMPROVEMENTS
 CITY OF SAN CLEMENTE



DATE CHECKED BY: 10-14-08
 CHECKED BY: [Signature]
 DESIGNED BY: [Signature]

NO.	DATE	BY	DESCRIPTION
1	10/14/08	[Signature]	DESIGNED
2	10/14/08	[Signature]	CHECKED
3	10/14/08	[Signature]	APPROVED

DATE CHECKED BY: 10-14-08
 CHECKED BY: [Signature]
 DESIGNED BY: [Signature]

PLAZA LA PLAYA
 CHANNEL WALL IMPROVEMENTS
 CITY OF SAN CLEMENTE

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COASTAL COMMISSION

EXHIBIT # 5
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GENERAL NOTES:

- ALL WALL CHANNELS TO APPLICABLE PROVISIONS OF THE CALIFORNIA BUILDING CODE (SECTION 1801.207).
- CONCRETE SHALL BE CAST IN PLACE WITH APPROVED FORMS AND VIBRATED TO THE DESIGN DENSITY.
- SEE SCHEDULE FOR REINFORCEMENT BAR SIZES, SPACING AND DEVELOPMENT LENGTHS.
- PROVIDE CHANNEL SYSTEM PER PLAN AND SECTION. THE SHEET SHALL SHOW:
- SECTIONAL ELEVATION, WALL THICKNESS, CHANNEL SIZE, AND REINFORCEMENT DETAILS.
- CONCRETE SHALL BE CAST IN PLACE WITH APPROVED FORMS AND VIBRATED TO THE DESIGN DENSITY.
- CONCRETE SHALL BE CAST IN PLACE WITH APPROVED FORMS AND VIBRATED TO THE DESIGN DENSITY.
- CONCRETE SHALL BE CAST IN PLACE WITH APPROVED FORMS AND VIBRATED TO THE DESIGN DENSITY.

DESIGN CRITERIA:

- ALL WALL CHANNELS TO APPLICABLE PROVISIONS OF THE CALIFORNIA BUILDING CODE (SECTION 1801.207).
- CONCRETE SHALL BE CAST IN PLACE WITH APPROVED FORMS AND VIBRATED TO THE DESIGN DENSITY.
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- CONCRETE SHALL BE CAST IN PLACE WITH APPROVED FORMS AND VIBRATED TO THE DESIGN DENSITY.

FOUNDATION:

- FOUNDATION SHALL BE CAST IN PLACE WITH APPROVED FORMS AND VIBRATED TO THE DESIGN DENSITY.
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- FOUNDATION SHALL BE CAST IN PLACE WITH APPROVED FORMS AND VIBRATED TO THE DESIGN DENSITY.

REINFORCING STEEL:

- REINFORCING STEEL SHALL BE CAST IN PLACE WITH APPROVED FORMS AND VIBRATED TO THE DESIGN DENSITY.
- REINFORCING STEEL SHALL BE CAST IN PLACE WITH APPROVED FORMS AND VIBRATED TO THE DESIGN DENSITY.
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DRAINAGE WEEDHOLE DETAIL

REINFORCEMENT DETAILS

LAP SCHEDULE	
BAR SIZE	LAP LENGTH
#3	18" (18D)
#4	24" (24D)
#5	30" (30D)
#6	36" (36D)
#7	42" (42D)
#8	48" (48D)
#9	54" (54D)
#10	60" (60D)
#11	66" (66D)
#12	72" (72D)

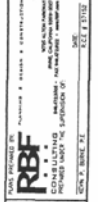
BEND SCHEDULE	
BAR SIZE	BEND RADIUS
#3	4" (4D)
#4	6" (6D)
#5	8" (8D)
#6	12" (12D)
#7	16" (16D)
#8	20" (20D)
#9	24" (24D)
#10	30" (30D)
#11	36" (36D)
#12	42" (42D)

CONCRETE:

- CONCRETE SHALL BE CAST IN PLACE WITH APPROVED FORMS AND VIBRATED TO THE DESIGN DENSITY.
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PLAZA LA PLAYA CHANNEL WALL IMPROVEMENT PLANS - 655 SUBMITTAL

PROJECT #	655
SHEET	S-2
TITLE	PLAZA LA PLAYA CHANNEL WALL IMPROVEMENTS GENERAL NOTES AND TYPICAL STRUCTURAL DETAILS
CITY	CITY OF SAN CLEMENTE
DATE	3/2/17



DATE	3/2/17
SCALE	1"=4'
REVISION	NO. 1
DESCRIPTION	REVISED PER COMMENTS

DATE	3/2/17
SCALE	1"=4'
REVISION	NO. 1
DESCRIPTION	REVISED PER COMMENTS

DATE	3/2/17
SCALE	1"=4'
REVISION	NO. 1
DESCRIPTION	REVISED PER COMMENTS

REVISIONS:

NO.	DATE	DESCRIPTION
1	3/2/17	REVISED PER COMMENTS

APPROVED:

 PROJECT ENGINEER

 CHECKED

 DESIGNER



COASTAL COMMISSION

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October 9, 2009

JN 10-104408

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

Attention: Liliana Roman

Subject: Floodwall Design – Plaza la Playa, San Clemente, California

Dear Ms. Roman

The City of San Clemente is proposing to modify the existing Plaza La Playa drainage channel to add a floodwall that will protect an adjacent home from flood flows at the downstream end of the channel. Photos 1 and 2 show the channel and proposed location of the floodwall. The floodwall would be constructed on the right side of the channel when viewing the photos. The channel is a shallow concrete channel that receives runoff from upstream residential and commercial areas, and conveys it from the outlet of a 72-inch pipe about 400 feet to an existing culvert under the railroad tracks at the Riviera Beach access point. Photo 3 shows the proposed location of the floodwall when viewed from the Beach Trail that is adjacent to the railroad tracks. During large storm events, the lower reach of the channel floods because it cannot contain flows from large storm events and because these flows back up behind the existing culvert under the railroad track. Photos 4 and 5 show the railroad culvert at the outlet of the channel. The proposed project design consists of construction of a floodwall, approximately 100 linear feet, adjacent to the existing concrete channel at the downstream end.

Since the proposed wall is to provide flood protection, the top-of-wall elevation is critically important. Any reduction in the top elevation of the wall defeats the purpose of the project as the wall would not provide the required flood protection to the adjacent property. The visible height of the proposed wall would vary from approximately 5 to 12 feet. Approximately 2 feet of the wall will be embedded in the slope behind the existing concrete curb of the channel and will therefore not be visible. Of the proposed 100 feet of wall, approximately 60 feet will be at or below 8 feet in height. It is important to note that the stated wall heights are relative to the existing channel bottom, which itself is located about 8 to 11 feet below the elevation of the nearby Beach Trail.

For Beach Trail users, existing vegetation would block the view of the wall for northbound trail users until they pass directly by it (see Photos 6 and 7). For southbound trail users, the elevation of the trail is such that trail users would look down toward the wall, so it will not be a detracting visual feature (see Photo 8). In addition, we are proposing to apply aesthetic treatments to the wall (discussed below) to further blend it into the surrounding environment. The height of the floodwall will be approximately 1-foot higher than the lowest elevation of the railroad track to ensure that flood flows

Ms. Liliana Roman
October 9, 2009
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JN: 10-104408

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will over top the railroad tracks before flooding the private property. Photo 9 shows the location of the proposed floodwall with relation to the height of the railroad tracks. No other private properties will be affected by the construction of the floodwall. Photos 10 through 13 show the location of the proposed floodwall when viewed from the beach looking east towards the railroad tracks. Based on these photos very little, if any, of the proposed floodwall would be seen from the beach area.

An alternative to the proposed project that was reviewed to lessen the exposed height of the wall included moving the wall away from the channel and embed it further up the slope. Due to flood protection requirement noted above, the actual constructed height of the wall would remain the same with this alternative. Because the earthen slope between the channel and the wall has the potential to be washed away or fail during the high storm flows that the wall is intended to protect against, the slope can not be considered as support for the wall. Constructing a wall closer to the home would require drilling under the existing deck which isn't feasible, and also introduces concerns about potential impacts on the slope that is the foundation for the adjacent house. Moving the wall away from the channel also creates an earthen gap between the wall and the channel. This gap would be subject to infiltration that may result in water seeping under the wall and rising to the flood level in the channel; thereby, jeopardizing the purpose of flood protection for the wall. Keeping the wall immediately behind the channel wall will make it easier to seal the gap to insure against seepage into the adjacent slope and minimize impacts to the existing vegetation. Several large trees and shrubs would need to be removed if the wall was to be moved further into the slope. The pile spacing and placement as shown on the plans minimized impacts to the existing vegetation.

The proposed floodwall will include colored concrete that has been colored with earth tones to blend the wall into the surroundings. Additionally, the wall can be formed with a pattern to be given the look of wood. Photo 14 shows a concrete fence post on the Beach Trail that has been formed to resemble wood. Photo 15 provides another example of a concrete wood pattern that could be used.

Sincerely,

Steve Giffen P.E.
Associate
RBF Consulting
Stormwater Management

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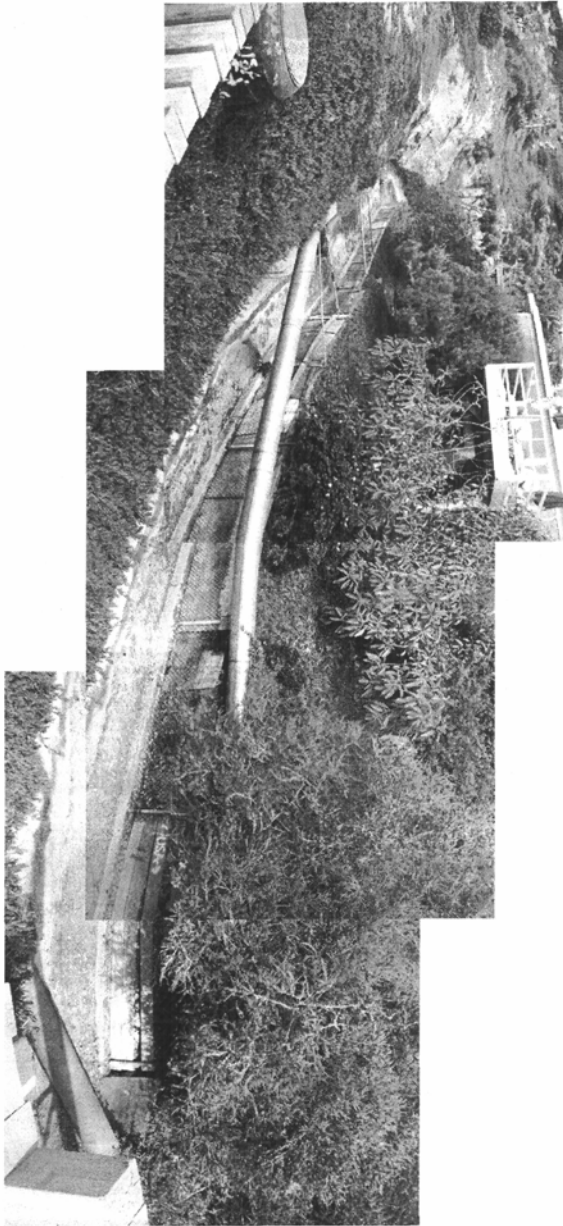


Photo 1 - On Beach Trail looking at proposed wall location. Wall would be constructed behind channel on right side.

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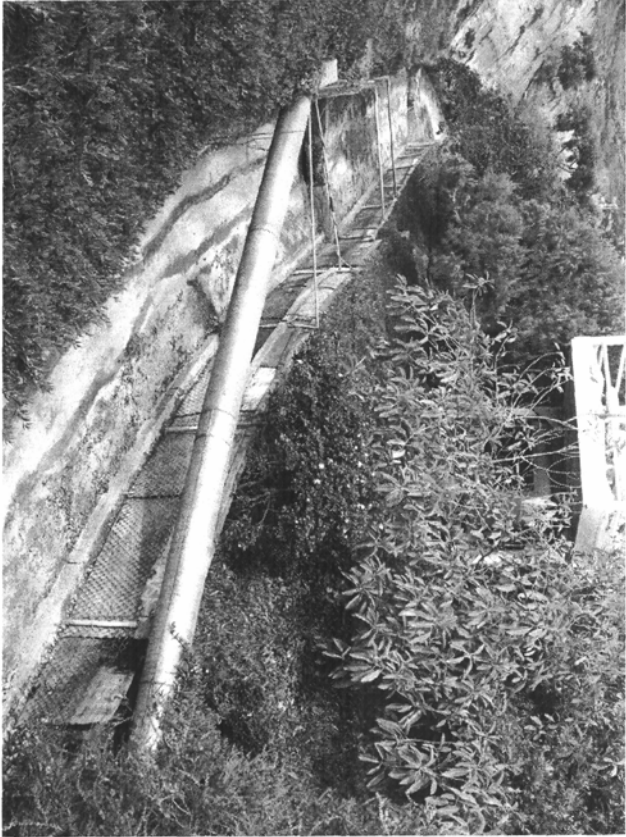


Photo 2 - Looking upstream at drainage channel. Wall location would be behind channel on right side.

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Photo 3 - On Beach Trail, looking at proposed wall location. Trail walkers would look somewhat down upon wall from the trail.

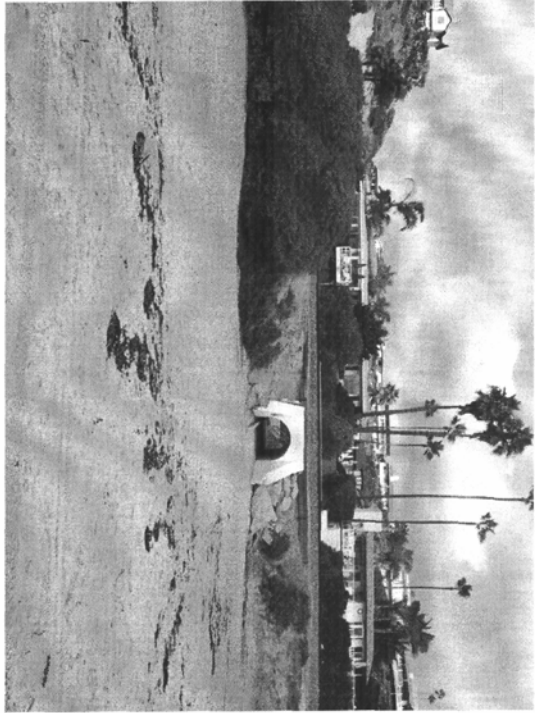


Photo 4 – Culvert under Rail road. On Riviera Beach at highest point on beach berm, looking east toward the Riviera access and project location.



Photo 5 - Zoomed view of same vantage as photo on the left.

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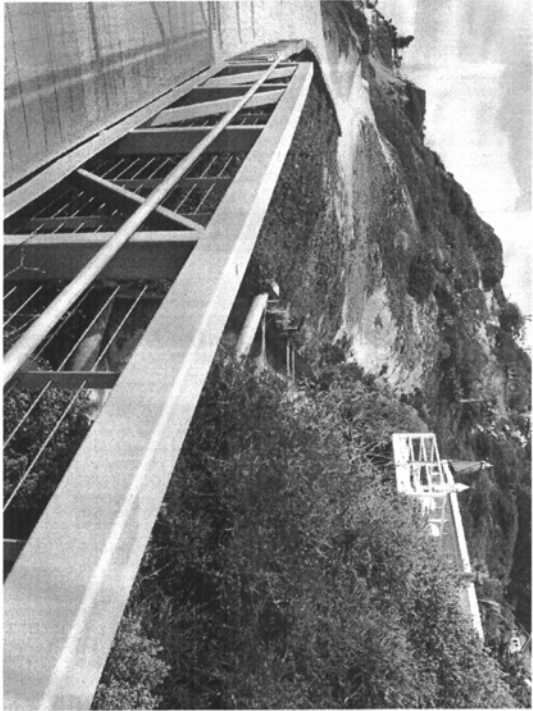


Photo 6 - On Beach Trail bridge
at Riviera access looking north
toward drainage channel.



Photo 7 - On Beach Trail bridge
at Riviera access looking north.

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Photo 8 - On Beach Trail, looking south.

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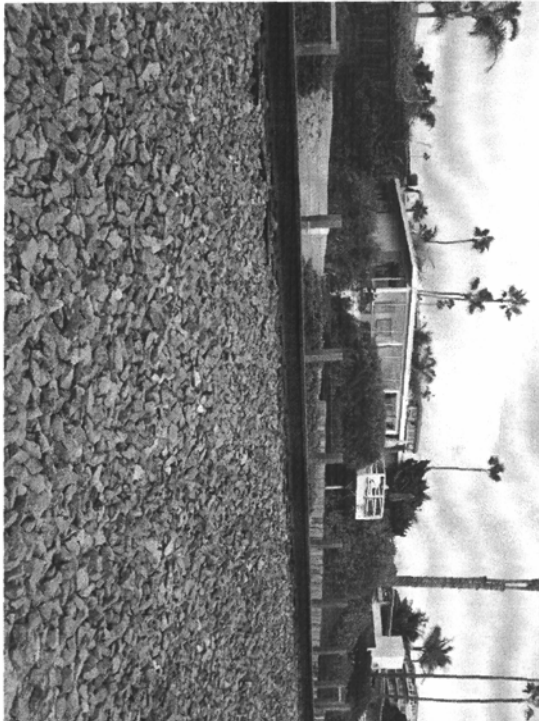


Photo 9 - At railroad track, looking toward project site. Wall will be mostly obscured from beach by Beach Trail and railroad tracks.

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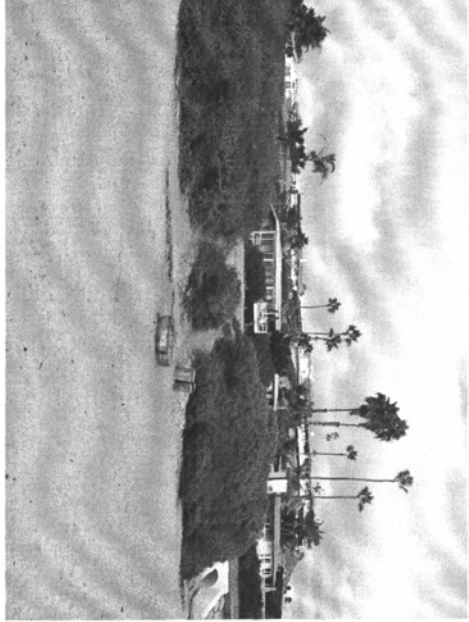


Photo 10 - On Riviera Beach,
looking southeast toward
project site. Wall will be mostly
obscured by Beach Trail and
railroad tracks.

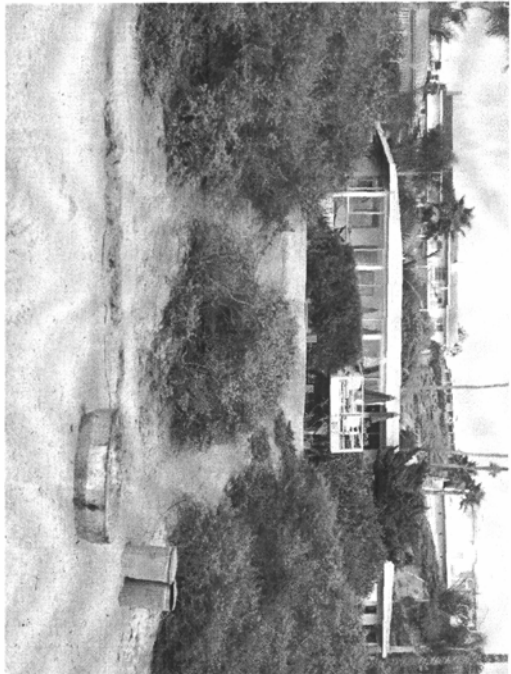


Photo 11 - Zoomed view of the
same vantage as photo on the
left.

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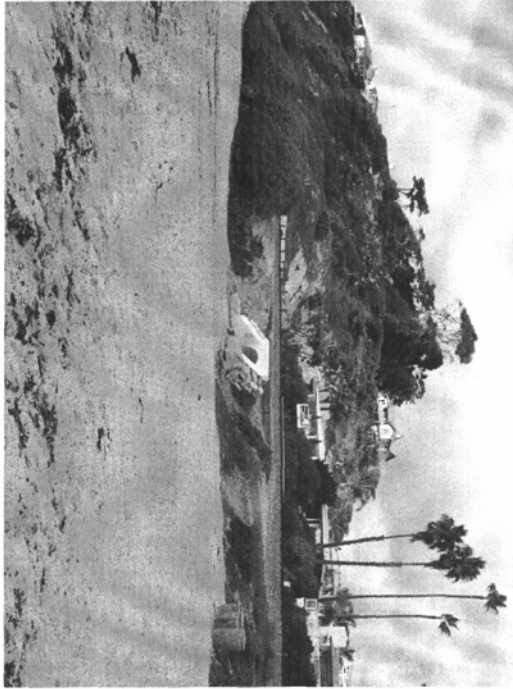


Photo 12 - On Riviera Beach in front of State Lifeguard Tower #4, looking northeast toward project site.

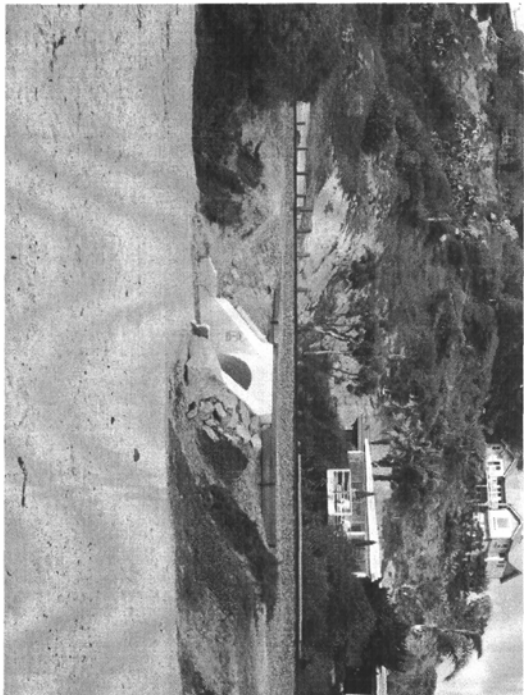


Photo 13 - Zoomed vantage of same view as photo on the left.

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