APPLICATION NUMBER: 5-99-061

APPLICANT: City of Los Angeles

PROJECT LOCATION: Cabrillo Beach, San Pedro, City of Los Angeles

PROJECT DESCRIPTION: Construction of a 6-foot wide approximately 500-foot long on-grade concrete walkway and an approximately 380-foot long elevated boardwalk. The concrete walkway portion will follow an existing dirt pathway and extend from the Park's existing entrance road (Oliver Vickery Circle Way), and adjoining sidewalk, to the grunion viewing beach. The concrete walkway will terminate at a new on-grade, 18-foot diameter, viewing platform that will be constructed approximately 85 feet from Mean Higher High Water (+5.5). An elevated, 4-foot wide, platform boardwalk, supported on 36-inch diameter reinforced concrete piers, will connect the walkway at the viewing beach. The boardwalk will consist of a wood/plastic composite deck with 3.5-foot high plastic covered guardrails, and gates located at both ends of the elevated boardwalk. Approximately 990 cubic yards of fill and rip rap material will be used to facilitate construction and add support to the toe of the existing slope. The City is also proposing to remove existing concrete rubble (pylons) that are outside of the footprint of the proposed fill and rip rap slope. In addition, four educational and interpretive signs will be installed along the trail.

LOCAL APPROVALS RECEIVED: City of Los Angeles Approval In Concept

SUBSTANTIVE FILE DOCUMENTS: San Pedro Certified Land Use Plan

SUMMARY OF STAFF RECOMMENDATION:
Staff recommends approval with special conditions regarding assumption of risk, habitat mitigation, and conformance with geologic and soil recommendations.
STAFF RECOMMENDATION:

The staff recommends that the Commission adopt the following resolution:

I. Approval with Conditions

The Commission hereby grants a permit for the proposed development, subject to the conditions below, on the grounds that, as conditioned, the development will be in conformity with the provisions of Chapter 3 of the California Coastal Act of 1976, will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal program conforming to the provisions of Chapter 3 of the Coastal Act, is located between the sea and first public road nearest the shoreline and is in conformance with the public access and public recreation policies of Chapter 3 of the Coastal Act, and will not have any significant adverse impacts on the environment within the meaning of the California Environmental Quality Act.

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. Compliance. All development must occur in strict compliance with the proposal as set forth in the application for permit, subject to any special conditions set forth below. Any deviation from the approved plans must be reviewed and approved by the staff and may require Commission approval.

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

5. Inspections. The Commission staff shall be allowed to inspect the site and the project during its development, subject to 24-hour advance notice.
6. 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.

7. 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. Assumption of Risk, Waiver of Liability and Indemnity Agreement

A. By acceptance of this permit, the applicant acknowledges and agrees (i) that the site may be subject to hazards from landslides, erosion and settlement; (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.

B. PRIOR TO ANY CONVEYANCE OF THE PROPERTY THAT IS THE SUBJECT OF THIS COASTAL DEVELOPMENT PERMIT, the applicant shall execute and record a deed restriction, in a form and content acceptable to the Executive Director incorporating all of the above terms of subsection (a) of this condition. The deed restriction shall include a legal description of the applicant's entire parcel. The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Commission amendment to this coastal development permit.

C. 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, incorporating all of the above terms of this condition.

2. Revised Plans

Prior to issuance of the Coastal Development Permit, the applicant shall submit, for the review and approval of the Executive Director, a plan showing the removal of all
existing concrete pylons located seaward of the proposed fill and rip rap slope footprint, as generally depicted on Exhibit 11. The removed pylons may be incorporated into the proposed slope. All work located below the Mean Higher High Water (MHHW) line (+5.5 feet) shall be conducted during tides that are lower than +2.8 feet. The applicant shall include a work schedule indicating the construction periods that work will be performed below MHHW.

3. Plans Conforming to Geologic Recommendation

All recommendations contained in the geotechnical report prepared by Frank J. Kenton, a engineering Geologist, and Apichart Phukunhaphan, a Geotechnical Engineer (8/23/99) shall be incorporated into all final design and construction plans. Prior to the issuance of the coastal development permit, the applicant shall submit, for the review and approval of the Executive Director, final design and construction plans that incorporate the recommendations made in the referenced report. The final plans shall include a signed statement by a geotechnical consultant certifying that each of the recommendations have been incorporated into the final plans. Any changes in the proposed development approved by the Commission which may be required by the consultant shall require an amendment to the permit unless the Executive Director determines that no amendment is required.

IV. Findings and Declarations:

The Commission hereby finds and declares:

A. Project Description and Location

The applicant proposes to construct a 6-foot wide approximately 500-foot long on-grade concrete walkway and an approximately 380-foot long elevated boardwalk within the City of Los Angeles' Cabrillo Beach Park (see Exhibits 3 through 6). The concrete walkway portion will follow an existing dirt pathway and extend from the Park's existing entrance road (Oliver Vickery Circle Way), and adjoining sidewalk, to the grunion viewing beach. The concrete walkway will terminate at a new on-grade, 18-foot in diameter, viewing platform that will be constructed at an existing elevation of approximately +15.5 feet and approximately 85 feet from Mean Higher High Water (+5.5). An elevated, 4-foot wide, platform boardwalk, supported on 36-inch wide caissons, will connect the walkway at the viewing beach. The boardwalk will consist of a wood/plastic composite deck with 3.5-foot high plastic covered guardrails, and gate located at both ends of the elevated boardwalk. The proposed boardwalk will follow an existing dirt pathway located along the base of an ascending bluff traversing existing rip rap. Approximately 990 cubic yards of fill and rip rap will be used to facilitate construction of the boardwalk and to add greater stability and protection.
at the toe of the slope. The City is also proposing to remove concrete pylons from an approximately 1,000 square foot area located seaward of the proposed fill and rip rap slope to restore the area to its natural condition (see Exhibit 11).

The proposed trail is being designed to provide barrier free beach access to those that have mobility impairments for the general public and for the City’s marine programs conducted by the Cabrillo Marine Aquarium. The trail will be open to the general public and will provide safe access over a portion of an existing dirt trail that currently traverses the uneven and scattered rip rap (T-shaped concrete pylons. See Exhibit 12). The trail will also include 4 educational and interpretive signs placed along the trail. The signs will vary in height from approximately 3 feet to 7 feet.

The total cost of the development is approximately $349,200. The City has been awarded a $299,940 competitive grant (Trials Acquisition & Development Program Competitive Grant Program) by the County of Los Angeles to partially fund the project. A stipulation of the grant is that the project must be completed by October 21, 1999.

At the base of the bluff there is a large rip rap or rubble area consisting of large (2,000 to 4,000 lbs.) concrete T-shaped pylons (see Exhibit 12). This rip rap extends for approximately 200 linear feet along the bottom of the bluff. Approximately 100 feet to the south of this rip rap is a groin (Spanish Breakwater) and south of the groin is an old deteriorating World War II bunker constructed in 1916. The top of the bluffs are developed with single-family residences with residential structures, fencing, patios extending near or down the bluff face.

Cabrillo Beach is located in the San Pedro area of the City of Los Angeles. Cabrillo Beach is a public beach park providing picnic areas, sandy beaches, a fishing pier, marina, and the Cabrillo Marine Aquarium. The park consists of an inner harbor area, which is protected by the City of Los Angeles' harbor breakwater, and the outer harbor area that is exposed to the open ocean. The proposed project is located in the outer harbor area (The City is also planning to construct a concrete trail system within the inner harbor area. The inner harbor area is within the Port of Los Angeles planning jurisdiction and the Port is responsible for issuing coastal permits).

Cabrillo Beach is a man-made beach, created in 1925 when the harbor was dredged to allow larger ships to enter. The outer harbor beach is a south facing beach and is exposed to the open ocean. Because of the beaches exposure to the open ocean the beach erodes over time and sand is periodically replenished by harbor dredges.

The western edge of the sandy beach in the outer harbor ends near the base of a coastal bluff. Along this portion of the shoreline rip rap consisting of T-shaped
South along the base of the bluffs the shoreline consists of a natural cobble stone beach.

Approximately 340 feet south of the sandy beach park and south of the concrete rip rap is a 140-foot long groin. The coastal area extending approximately half-mile from the groin to the Point Fermin Lighthouse has been designated a State Ecological Reserve—the Point Fermin Marine Life Refuge—by the State of California in 1969. This designation has been included in the City's certified San Pedro Land Use Plan. The Point Fermin refuge allows the taking of traditional game fish while protecting the traditional non-game species of invertebrates and marine plant life. The refuge includes the area from mean high tide to 600 feet below low tide. Along the shore of the refuge are surf swept tidepools. The tidepools provide habitat to a diverse plant and animal community. According to the City and the Cabrillo Marine Aquarium the tidepools are a popular visitor attraction attracting thousands of people each year.

The Cabrillo Marine Aquarium, through its educational programs, strives to preserve the marine life found within the refuge and educate the public as to the importance of the marine life found within the refuge. The project's Initial Environmental Study and Final Negative Declaration states that:

> Cabrillo Beach receives about one million visitors a year, and about 400,000 visitors to the Cabrillo Marine Aquarium. About 160,000 of the aquarium visitors are school children in the aquarium's organized educational programs.

The Cabrillo Marine Aquarium includes a grunion program, conducted at night for the general public, that attracts 200 to 3,000 visitors; a tidepool educational program conducted daily for groups of school children and on weekends for the general public that attracts more than 200 members of the public on the weekend; and a Sea Search program consisting of lab and field studies for children.

The California State Lands Commission has reviewed the proposed project and have determined that the project will be located on lands that were legislatively granted to the City of Los Angeles. Therefore, no authorization from State Lands is required.

B. Marine Resources

The Coastal Act contains policies which address development in or near coastal waters. Although most of the proposed project is landward of the current water line a portion of the protect will extend below the mean high tideline. The standard of review for the proposed project is the Chapter 3 polices of the Coastal Act, including the following Marine Resource sections of the Coastal Act:
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 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 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 30233(a) of the Coastal Act states:

The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

1. New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.

2. Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.

3. In wetland areas only, entrance channels for new or expanded boating facilities; and in a degraded wetland, identified by the Department of Fish and Game pursuant to subdivision (b) of Section 30411, for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland. The size of the wetland area used for boating facilities, including berthing space, turning basins, necessary navigation channels, and any necessary support service facilities shall not exceed 25 percent of the degraded wetland.

4. In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural
pilings for public recreational piers that provide public access and recreational opportunities.

(5) Incidental public service purposes, including, but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.

(6) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.

(7) Restoration purposes.

(8) Nature study, aquaculture, or similar resource-dependent activities.

Section 30233 of the Coastal Act allows filling of coastal waters and wetlands only under very limited circumstances. The proposed filling of coastal waters must be for an allowable use, it must be the least environmentally damaging alternative, and mitigation measures must be provided to minimize adverse environmental effects.

The proposed project involves the construction of an access trail along the inland area of a beach park and along the base of a coastal bluff. The at grade trail, extending from the park's entrance road to the viewing platform, will be located at an approximate elevation ranging between 13 to 15 feet. The proposed elevated trail, that begins approximately 48 feet south of the viewing platform, will be located at an elevation ranging between 11 and 16 feet. As proposed, the trail will be located inland of the current waterline, which is at 5.5 feet Mean Higher High Water (MHHW).

In order to construct the elevated trail and to minimize disruption within the intertidal area, the project includes the placement of fill and rip rap along the seaward side of the trail. The majority of the fill and rip rap will be placed outside of the intertidal area; however, an area of approximately 15 square feet within the intertidal area will be encroached upon by the new fill and rip rap.

The fill and rip rap will be used to create an 8 foot wide bench in order to provide the minimum amount of flat surface area for access for the rock and soil drill equipment. This construction method will allow construction activity to occur atop the existing rip rap and outside of the intertidal area including the tidepools that are found in the lower areas.

The elevated boardwalk will follow an existing dirt trail atop the existing concrete rip rap (each block is approximately 1 to 2 tons in weight). The City estimates, based on aerial photographs, that the existing rip rap was placed at the site between 1968 and 1971. The existing rip rap extends along the bottom of the bluff approximately 200 linear feet, with approximately 110 linear feet within the intertidal area. The new fill and rip rap will be located in the same general area as the existing rip rap. The new fill and rip rap will be engineered at a 1.25 to 1 slope using a geogrid for the fill to allow a steeper angle of
repose. The toe of the new rip rap will be located a maximum of 20 feet inland from the toe of the existing concrete rip rap.

As designed with the 1.25 to 1 slope the majority of the fill and rip rap will be outside of the intertidal area. However, an area of approximately 15 square feet within the intertidal area will be filled with new fill in the form of small 1 to 6 inch quarry stone for use as fill material and 375 pound class quarry stone for use as rip rap.

The proposed fill by the City is necessary to provide public access for nature study. The elevated trail will provide public access to the tidepool area within the Point Fermin Marine Life Refuge and tidepools by the general public as well as for people with limited mobility. Therefore, the proposed fill is a permitted use consistent under Section 30233(a)(8) of the Coastal Act which allows fill for nature study.

In addition to the question of allowable use, the proposed project must be the least environmentally damaging alternative. The applicant has designed the proposed project so that the impact to the marine habitat is minimized. The elevated trail will be located along the existing dirt trail and will be situated inland of the intertidal area. The design of the fill and rip rap also minimizes encroachment into the intertidal area by the footprint of the rip rap and by construction activity.

The applicant reviewed other alternative trail designs to determine the least environmentally damaging alternative. The applicant originally proposed and elevated trail with a 1.75 to 1 fill and rip rap slope. This alternative would have resulted in approximately 100 to 150 square feet of intertidal area filled. Because of impact concerns the applicant proposed increasing the slope of the fill and rip rap from a slope of 1.75 to 1 to a slope of 1.25 to 1 with the use of a geogrid (a high density polyethylene or woven polyester fiber used as soil reinforcement). The steeper slope reduced the size of the footprint and limited the encroachment into the intertidal area.

The applicant also examined other alternatives such as an all fill trail, and an elevated trail on conventional 18-inch diameter drilled piers. These alternatives would require more fill and rip rap and encroach further into the intertidal area. Therefore, based on the applicant's information the proposed project is the least environmentally damaging alternative.

Finally, in addition to the question of allowable use and alternatives, the proposed project must provide adequate mitigation to offset the loss of open coastal water habitat. The proposed project will impact approximately 15 square feet of intertidal habitat by the placement of fill material and rip rap. In order to mitigate this loss, the applicant proposes to remove all existing concrete pylons that are currently located outside of the footprint of the new fill and rip rap slope. This covers an area of approximately 1,000 square feet (.02 acres). The concrete pylons will be incorporated into the new engineered rip rap outside of the intertidal area. The area occupied by the pylons to be removed versus the area impacted represents a mitigation ratio of approximately 66:1.
The removal of the concrete pylons will require the operating of large equipment below the MHHW line which may impact the marine habitat found in that area. Furthermore, the removal of the concrete pylons will remove surface area of the pylons that may have been used as habitat by marine biota. However, these impacts will be short-term impacts and will not be significant. The Director of the Cabrillo Marine Museum, Dr. Susanne Lawrenz-Miller, has inspected the proposed site and has determined that the impact to marine life in the area will be negligible (see Letter, Exhibit 7). Because of the sand and gravel scour that occurs in the area little marine life exists, except for patches of small Ulva (sea lettuce), and a very few stray limpets, periwinkles and barnacles. Moreover, the tidepools as identified by the City's biological consultants, Parsons Engineering Science, Inc., are not in a pristine state and are formed mainly by cobble stones and do not have a high biological value.

The impacts caused by construction activity can be minimized by limiting construction within the intertidal area to periods when the tide is below the footprint of the rip rap which is at its lowest point approximately +2.8 feet. The loss of the pylons that may have been used as habitat will be offset by returning the area to a more natural setting and the freeing up of the area underneath the pylons for use as marine habitat. Therefore, the short-term impacts from the loss of the pylon's surface area will be offset by the long-term gain in area returned to its natural habitat and aesthetic enhancement. Furthermore, the applicant has chosen the proposed design of the trial and construction method so that construction will take place entirely outside of the intertidal area. Therefore, work within the intertidal area will only be to remove existing concrete pylons and will be for a short period of time.

The existing pylons will be removed concurrently with the development of the trial and placement of the rip rap. To ensure that the existing concrete pylons located outside of the proposed new fill and rip rap footprint and within the intertidal area are removed a special condition is necessary requiring the removal of the pylons. There will be unavoidable impacts due to the location of the pylons within the intertidal area and the need to bring in equipment into the area to remove the pylons. However, the impact can be minimized by limiting the work within the intertidal area to periods when the tide falls below the footprint of the existing concrete rip rap. Therefore, as part of the special condition to remove the pylons, removal of the pylons located below MHHW (+5.5) shall be done during tides lower than +2.8 feet to minimize impacts within the intertidal area. Therefore, as conditioned, the Commission finds the proposed project consistent with Sections 30230, 30231, and 30233 of the Coastal Act.

C. Public Access

All projects requiring a Coastal Development Permit must be reviewed for compliance with the public access provisions of Chapter 3 of the Coastal Act. 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 30211 requires that development shall not interfere with access:

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.

Section 30214 of the Coastal Act states in part that:

(a) The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:

(1) Topographic and geologic site characteristics.

(2) The capacity of the site to sustain use and at what level of intensity.

(3) The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to adjacent residential uses.

(4) The need to provide for the management of access areas so as to protect the privacy of adjacent property owners and to protect the aesthetic values of the area by providing for the collection of litter.

(b) It is the intent of the Legislature that the public access policies of this article be carried out in a reasonable manner that considers the equities and that balances the rights of the individual property owner with the public's constitutional right of access pursuant to Section 4 of Article X of the California Constitution. Nothing in this section or any amendment thereto shall be construed as a limitation on the rights guaranteed to the public under Section 4 of Article X of the California Constitution.

(c) In carrying out the public access policies of this article, the commission, regional commissions, and any other responsible public agency shall consider and encourage the utilization of innovative access management techniques, including, but not limited to, agreements with private organizations which would minimize management costs and encourage the use of volunteer programs.
As stated the proposed project is to provide access to the general public as well as for people with limited mobility. The at-grade boardwalk from the entrance road to near the beaches edge will provide access and viewing opportunities to the City's grunion programs for those with limited mobility. The elevated boardwalk will provide safe access for the general public and for those with limited mobility over existing concrete rip rap to the tidepool area located within the Point Fermin Marine Life Refuge.

The current access from the sandy beach area to the marine refuge tidepools consists of a narrow dirt path, 1 to 3 feet wide, that dips and rises over the existing large concrete rip rap. The City states that the current access poses a safety concern to the public due to erosion of the trail and the narrow width of the trail.

A potential concern raised by improved access in this area is the possible adverse impacts to the marine resources due to increased use. Although protected by law, the Marine Life Refuge is heavily impacted by the number of people who visit the area. However, the new boardwalk will not significantly increase pedestrian traffic in the tidepool area but will provide better and safer access to the area for those that visit the area. The City indicates that through signage placed along the trail and increased public educational opportunities, there will be a heightened awareness of the conservation requirements of the sensitive marine resources which may help minimize the impacts to the area. Furthermore, as proposed by the City, and conditioned by this permit, the City will remove or relocate the existing concrete rip rap that is scattered within the intertidal area by incorporating the large concrete rip rap into the engineered rip rap slope. By removing these large blocks, access along the waters edge will be improved and the impact of adding additional fill on the beach will be further mitigated by the improved access. Therefore, as conditioned, the project will improve and enhance public access along the coast consistent with Sections 30210, 30211, and 30214 of the Coastal Act.

D. Visual Resources

Section 30251 of the Coastal Act states in part 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 landforms, to be visually compatible with the character surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas.

The proposed project is located approximately at the toe of a 45 to 72 foot high coastal bluff in the San Pedro area of the City of Los Angeles. The first portion of the walkway will consist of a 6-foot wide, 500 foot long at grade concrete walkway extending from the entrance road to the grunion viewing beach. A 4-foot wide, 300-foot long, raised boardwalk constructed atop approximately 14 -16 concrete caissons will connect the at-grade walkway at the grunion viewing beach with the tidepool area. The elevated
boardwalk surface will extend 2 to 5 feet above finished grade with 3.5 foot guardrails along both sides of the boardwalk. Included with the development of the trail will be educational and interpretive signs placed along the trail. The City is proposing four signs ranging in height from approximately 3 feet to 7 feet (see Exhibits 8 through 10).

At the base of the bluff there is an area, approximately 4,000 square feet, of rip rap consisting of large (2,000 to 4,000 lbs.) concrete T-shaped pylons. This rip rap extends for approximately 200 linear feet along the bottom of the bluff. Approximately 100 feet to the south of this rip rap is a groin (Spanish Breakwater) and south of the groin is an old deteriorating World War II bunker constructed in 1916. The top of the bluffs are developed with single-family residences with residential structures, fencing, patios extending near or down the bluff face.

The elevated walkway will be situated adjacent to the base of the bluff and atop the existing concrete rip rap and then descending the rip rap to natural grade just south of the rip rap. As proposed the development of the trail will not significantly detract from the visual quality of the area. Furthermore, as conditioned by this permit, the applicant will remove existing concrete pylons that are currently scattered along the beach area and incorporate them into the new slope. This will improve the visual appearance of the area by clearing a portion of the beach.

The signs as designed and located will not detract from the visual quality of the area. The signs along the trail will be located on the bluff side of the trail so as not to impact coastal views. The Commission, therefore, finds that the development, as conditioned, will not adversely impact views to the ocean from the surrounding area and will be visually compatible with the character of the surrounding area consistent with Section 30251 of the Coastal Act.

E. Geology

Section 30253 of the Coastal Act states in 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.

In addition, the certified LUP states in part that:
New development, including additions to and remodels of existing structures, along coastal bluffs shall not be approved unless it minimizes risk to life and property, assures structural stability and integrity for the economic lifetime of the development.

The subject site includes a flat sandy beach park and the base of a coastal bluff. According to the geotechnical report prepared by Frank J. Kenton, a engineering Geologist, and Apichart Phukunhaphan, a Geotechnical Engineer (8/23/99) the area is underlain by localized areas of artificial fill, beach deposits, terrace deposits, San Pedro Sand and Monterey Formation. Artificial fill consists primarily of rip rap and soil placed near the toe of the bluff and fill material placed along the outside edge of the path descending for Steven White Drive. The beach deposits consist of well rounded sand that is clean, and cohesionless. Terrace deposits consist of silt, sands and gravel. These deposits range in thickness from 1 to 12 feet.

According to the report the bluff slope ascending from the area of the proposed elevated boardwalk is experiencing slope retreat. The slope retreat process is occurring as a combination of landslides, shallower surficial failures and erosion. Slope failure and severe erosion gullies were observed on the steep bluff adjacent to the proposed elevated boardwalk. The report states that although the slope appears to be grossly stable, future movement or erosion within this failure will encroach onto the proposed development. Such erosion would occur outside of the project area.

As proposed by the applicant there will be no work involving the bluff except for placement of rip rap at the toe of the bluff. The proposed area consists of landslide and slope wash material from the upper slope. According to the report the existing concrete rip rap material was placed at the base of the slope to provide lateral support for the bluff slope. The report states that the slope is presently stabilized by the rip rap and artificial fill. Because the existing rip rap provides lateral support of the bluff, removal may result in an upslope failure. Therefore, during construction and engineering of the new slope only the loose material that is not supporting or tied into the slope will be removed and reengineered into the proposed slope. Piles will be drilled through the existing fill and rip rap into bedrock to provide structural support and minimize the possibility of movement. The geotechnical report concludes that as designed the proposed project will not adversely affect the stability of the existing slope but will provide improved buttressing of the slope due to the deep caissons and the new engineered fill and rip rap slope. The report recommends that the piles penetrate the slope wash/landslide material into bedrock, all vegetation and debris be cleared prior to construction, and that all fill material be approved by the geotechnical engineer prior to placement. Therefore, to ensure that the development will comply with the geotechnical recommendations, a special condition requiring review and approval of all plans by the geotechnical engineer is necessary.

Section 30253 of the Coastal Act states in part that new development shall minimize risks to life and property and shall assure stability and structural integrity. According to the geotechnical report the bluffs above the subject site have been subject to landsliding.
and erosion. The use of micro piles drilled into bedrock and replacement of the existing rip rap with a properly engineered fill and rip rap slope will increase the stability of the area along the proposed trail by buttressing the existing slope. Therefore, the Commission finds that the proposed development conforms with Section 30253 of the Coastal Act.

Finally, the geologic report has identified several hazards in the area which in the future may pose a risk to the development. Due to the inherent nature of the bluffs there remains the possibility that the bluff could erode and threaten the structural integrity of the structure. Although the development is designed to be stable to reduce adverse impacts due to landsliding and soil erosion, there will continue to be gradual bluff degradation due to weathering. Therefore, to ensure that the applicant is aware of the geologic hazard, the applicant shall be required to indemnify and hold harmless the Coastal Commission from any claims related to the proposed development. The Commission, therefore, finds that only as conditioned, will the proposed development be consistent with Section 30253 of the Coastal Act.

F. Local Coastal Program

(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 Coastal Program that is in conformity with the provisions of Chapter 3.

On September 12, 1990, the Commission certified, with suggested modifications, the land use plan portion of the San Pedro segment of the City of Los Angeles' Local Coastal Program. The certified LUP contains polices to guide the types, locations and intensity of future development in the San Pedro coastal zone. Among these polices are those specified in the preceding section regarding public access, visual resources, and geology. The proposed development is consistent with the policies of the certified LUP. As proposed the project will not adversely impact coastal resources or access. The Commission, therefore, finds that the proposed project will be consistent with the Chapter 3 policies of the Coastal Act and will not prejudice the ability of the City to prepare a Local Coastal Program implementation program consistent with the policies of Chapter 3 of the Coastal Act as required by Section 30604(a).

G. CEQA

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

As conditioned, there are no feasible alternatives or mitigation measures available which would substantially lessen any significant adverse impact which the activity may have on the environment. Therefore, the proposed project is found consistent with CEQA and the policies of the Coastal Act.
Figure 1-1
Regional Location Map
Cabrillo Marine Aquarium
Proposed Cabrillo Coastal Park Trails
City of Los Angeles

Source: Parsons Engineering Science
Item #1 Trail to Marine Life Refuge Entrance
1a 6' wide natural concrete walkway, locate at toe of slope
1c Natural concrete driveway apron at service road

Item #2 Grunion Vista Point
2a Construct natural concrete viewing area.
2b 6' hi. natural concrete curb (type B).

Item #5 Curbcuts & Crosswalk
5c Construct standard curb ramp
5e Painted crosswalk across Vickery Circle Way

EXHIBIT NO. 3
Application Number 5-99-061
At Grade Segment of Trail
California Coastal Commission
Figure 1-4. Walkway to Tide Pools

1-6
Dear Mr. Padilla:

I am writing in support of the Cabrillo Coastal Park Trails Project that is under consideration by the Coastal Commission staff at this time for action at the April 1999 meeting of the Coastal Commission in Long Beach.

The project, awarded a $299,940 competitive grant by the County of Los Angeles, will provide accessibility for the physically challenged to the edge of the Cabrillo ocean beach, making it possible for everyone to view the fascinating natural spectacle of grunion spawning on the beach at night, as well as to enjoy the beautiful view from the water's edge. The bigger part of the project will provide safe access for visitors to the Point Fermin Marine Life Refuge by way of a boardwalk that will take foot traffic off the badly eroded—at times extremely dangerous—footpath at the cliff base. This path, and the slippery sand-scoured rocks below the existing riprap, is the only entry point for the marine life refuge. The improved entry, along with interpretive exhibits at both ends, will help visitors better appreciate the tidepool areas they are entering and its protected status.

We have obtained funding to add extra protection to the cliff base below the planned boardwalk by adding permanent fill and new riprap along much of the length of the boardwalk. One- to six-inch quarrystone will be overlain with geotextile and angular 375-lb quarrystones two layers thick.

While not strictly necessary to the construction of the boardwalk, which will be anchored in bedrock, the new riprap will provide long-term protection for the boardwalk and the cliff base. The old riprap, placed some time between 1968 and 1971 (Frank Kenton, Preliminary Geotechnical Report, August 26, 1998) consists of chunks of salvaged square cement pylons. Over the past twenty years, some of this riprap has scattered into the intertidal zone, reducing its protective function and creating a rather messy appearance. The new riprap will improve both the protection and appearance of this entry area.

To provide a stable angle of repose, part of the new riprap will extend into the intertidal zone in two areas, up to six feet in the larger area. I examined these sections in some detail today, and believe that the impact on marine life will be negligible. In both areas riprap blocks have scattered seaward, and smaller rocks, cobbles, and gravel have filled in the spaces. These areas are so sand- and gravel-scoured that little marine life exists there except for patches of small Ulva, the sea lettuce, and a very few stray limpets and
periwinkles. Two species of limpets are found higher upon some of the riprap blocks, but not at their bases. Barnacles are found on more seaward-scattered riprap blocks beyond the area where the new riprap will extend.

The only marine life in much abundance along the riprap in general are small littorine snails (periwinkles), found in many holes and crevices. Rock scurriers, fast-moving small crustaceans of the high-tide zone, are few in number currently.

The proposed added riprap may actually enhance the habitat for small attached organisms, periwinkle, scurriers, and shore crabs by increasing the amount of stable hard substratum and greatly increasing the available crevice space that can shelter small marine animals in areas that extend into the intertidal zone.

Unless this issue causes delays in the project, which would threaten the viability of the project as a whole due to the County's strict completion deadline, I would strongly urge the Commission to approve the project with the new riprap included.

Very truly yours,

Susanne Lawrenz-Miller, Ph.D.
Director, Cabrillo Marine Aquarium
The attached illustrations show styles and not content of proposed signs. Please refer to the attached plan for locations of signs.

Sign 1: Ocean Beach Trail Entry

A single low, slanted 2'h x 4'w sign such as shown in the illustration will introduce the accessible trail that leads to the grunion lookout and the marine life refuge entry. It will be set to the right (west) of the trail entry just beyond the sidewalk.

At a later time one or two additional signs of this style, 2'h x 6'w maximum dimension, will be added to the rail at the grunion overlook to provide information about grunion and features of the ocean beach vista.

Sign 2: Point Fermin Marine Life Refuge/Beach Activities

A roofed three-dimensional sign, 4'h x 6'h x 1.5'd, will be placed on the southwest side of the cement trail against the hillside just before the grunion overlook. The history, protection, and major features of the marine life refuge will be illustrated here. The slanted lower portion will have molded models of common tidepool animals for visually impaired visitors. The peak of the roofed structure will be 6 to 7 feet tall. The sign will also store equipment for aquarium programs on the ocean beach and in the refuge (tapes and quadrats for surveys, bird and tidepool life guides, clipboards, etc.).

Sign 3: Caution signs (not illustrated)

Simple 2' h x 1.5' w metal signs on gates of the boardwalk cautioning visitors about hours and safety considerations.

Sign 4: Tidepool Protection

A 4'h x 6'w sign supported by telephone pole posts will emphasize 1) California Fish and Game regulations and guidelines concerning seashore life protection; 2) visitor safety; 3) more information on tidepool life. It will be placed on the bluff side of the trail beyond the boardwalk near the "Spanish breakwater" where all visitors must pass close by as they enter the marine life refuge.

All signs will be in English and Spanish.