

CALIFORNIA COASTAL COMMISSION

SAN DIEGO AREA

METROPOLITAN DRIVE, SUITE 103

SAN DIEGO, CA 92108-4402

767-2370

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REGULAR CALENDAR
STAFF REPORT AND PRELIMINARY RECOMMENDATION

Application No.: 6-00-36

Applicant: Jonathon Corn
Harold Scism

Agent: Group Delta Consulting

Description: Placement of colored and textured erodible concrete fill, approximately 5 feet in depth, at the toe of the bluff within an existing approximately 15 foot-high, 74 foot-long notch overhang, the construction of a 2.5 foot-wide tiedback concrete seawall over the face of the concrete fill and the insertion of a row of sixteen, approximately 4-inch diameter soil nails to be placed at 5 foot on center at elevation +20 (MSL) across the length of the properties. The face of the proposed seawall and soil nails have been designed with coloring, texturing and sculpting to allow for a more natural appearance. The soil nails and notch fill are currently being installed, pursuant to an emergency permit.

Site: On the public bluff and beach below 311 and 319 Pacific Avenue, Solana Beach, San Diego County. APN #263-312-02 and 263-301-03

STAFF NOTES:

Summary of Staff's Preliminary Recommendation: Staff is recommending approval of the subject development subject to a number of special conditions. The applicants have demonstrated that the existing blufftop residences are in danger from erosion. The subject site to the immediate north recently sustained a bluff collapse that resulted in the exposure of a layer of clean sands in the mid-bluff area which created a fracture that extends approximately 20 feet onto the subject properties. The applicant's geotechnical consultant has documented that the seacliff below the subject properties consists of an approximately 15 foot-high notch overhang which, when it collapses, will likely result in the exposure of the clean sands layer below the subject properties resulting in an accelerated erosion threat to the residences. The Commission's staff engineer and geologist have reviewed the applicants' geotechnical assessment and concur with its conclusions.

The subject development has been conditioned to mitigate its impact on coastal resources such as scenic quality, public access and recreation opportunities, and shoreline sand supply. A special condition has been attached which requires the applicants to record a deed restriction acknowledging that should additional stabilization be proposed in the future, the applicants will be required to identify and address the feasibility of all alternative measures which would avoid additional alteration of the natural landform of the public beach or coastal bluffs, but would reduce risk to the principle residential structures and provide reasonable use of the property. If such alternatives are feasible, the Commission will require those measures instead of additional bluff or shoreline protective devices. The recommended conditions also require the applicant to pay a beach sand mitigation fee to mitigate the direct and long-term impacts on shoreline sand supply. Other conditions involve the timing of construction, the appearance of the seawall, long-term monitoring of the seawall and tiebacks, and approval from other agencies.

Substantive File Documents: City of Solana Beach General Plan and Zoning Ordinance San Diego County LCP; Directors Use Permit #6-17-04; Conditional Use Permit #17-00-25; "Emergency Permit Request for Coastal Bluff Stabilization 311 and 319 Pacific Avenue" by Group Delta Consultants dated December 5, 2000; CDP Nos. 6-95-139/Corn, 6-99-100/Presnell, et. al, 6-99-103/Coastal Preservation Association, 6-00-138-G/Kinzel/Greenberg, 6-00-138/Kinzel/Greenberg, 6-00-155-G/Kinzel/Greenberg and 6-01-001-G/Corn/Scism.

I. PRELIMINARY STAFF RECOMMENDATION:

The staff recommends the Commission adopt the following resolution:

MOTION: *I move that the Commission approve Coastal Development Permit No. 6-00-36 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.

See attached page.

III. Special Conditions.

The permit is subject to the following conditions:

1. Final Plans. PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicants shall submit for review and written approval of the Executive Director, final seawall, soil nails, site, landscape, irrigation and drainage plans in substantial conformance with the submitted plans dated 1/19/01 by Group Delta Consultants, that include the following measures to mitigate the impacts of the shoreline protection devices and address overall site stability. Said plans shall first be approved by the City of Solana Beach and include the following:

- a. Sufficient detail regarding the construction method and technology utilized for connecting the subject seawall to adjacent seawall structure(s) or, where a seawall does not exist, constructing a return wall on its northern side so as to gradually blend into the adjacent natural bluff.
- b. Sufficient detail regarding the construction method and technology utilized for texturing and coloring the seawall and tiebacks. Said plans shall confirm, and be of sufficient detail to verify, that the seawall color and texture closely matches the adjacent natural bluffs, including provision of a color board indicating the color of the fill material.
- c. The seawall shall conform as closely as possible to the natural contour of the bluff.
- d. Any existing permanent irrigation system located on the two bluff top sites shall be removed or capped.
- e. All runoff from impervious surfaces on the top of the bluff shall be collected and directed away from the bluff edge towards the street.
- f. Existing accessory improvements (i.e., decks, patios, walls, etc.) located in the geologic setback area on the two sites shall be detailed and drawn to scale on the final approved site plan and shall include measurements of the distance between the accessory improvements and the bluff edge (as defined by Section 13577 of

the California Code of Regulations) taken at 6 or more locations. The locations for these measurements shall be identified through permanent markers, benchmarks, survey position, written description, etc. (the same as utilized for as-built plans required pursuant to Special Condition #5 below).

- g. During construction of the approved development, disturbance to sand and intertidal areas shall be minimized to the maximum extent feasible. All excavated beach sand shall be redeposited on the beach. Local sand, cobbles or shoreline rocks shall not be used for backfill or for any other purpose as construction material.

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

2. Mitigation for Impacts to Sand Supply. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicants shall provide evidence, in a form and content acceptable to the Executive Director, that a fee of \$18,772.00 has been deposited in an interest bearing account designated by the Executive Director, in-lieu of providing the total amount of sand to replace the sand and beach area that would be lost due to the impacts of the proposed protective structure. The methodology used to determine the appropriate mitigation fee for the subject site(s) is that described in the staff report dated 2/27/01 prepared for Coastal Development Permit #6-00-36. All interest earned shall be payable to the account for the purposes stated below.

The purpose of the account shall be to establish a beach sand replenishment fund to aid SANDAG, or a Commission-approved alternate entity, in the restoration of the beaches within San Diego County. The funds shall solely be used to implement projects which provide sand to the region's beaches, not to fund operations, maintenance or planning studies. The funds shall be released only upon approval of an appropriate project by the Executive Director of the Coastal Commission. The funds shall be released as provided for in a MOA between SANDAG, or a Commission-approved alternate entity and the Commission, setting forth terms and conditions to assure that the in-lieu fee will be expended in the manner intended by the Commission. If the MOA is terminated, the Commission can appoint an alternative entity to administer the fund.

3. Monitoring Program. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicants shall submit to the Executive Director for review and written approval, a monitoring program prepared by a licensed geologist or geotechnical engineer for the site, seawall and soil nails which provides for the following:

- a. An annual evaluation of the condition and performance of the seawall and, soil nails addressing whether any significant weathering or damage has occurred that

would adversely impact the future performance of the structures. This evaluation shall include an assessment of the color and texture of the seawall and any exposed areas of the soil nails comparing the appearance of the structures to the surrounding natural bluffs.

- b. Annual measurements of any differential retreat at 20-foot intervals (maximum) along the top of the seawall face/bluff face intersection. The program shall describe the method by which such measurements shall be taken.
- c. Provisions for submittal of a report to the Executive Director of the Coastal Commission on May 1 of each year (beginning the first year after construction of the project is completed) for a period of three years and then each third year following the last the annual report for the life of the seawall and soil nails. Each report shall be prepared by a licensed geologist or geotechnical engineer. The report shall contain the measurements and evaluation required in sections a, and b above. The report shall also summarize all measurements and provide some analysis of trends and the stability of the overall bluff face. In addition, each report shall contain recommendations, if any, for necessary maintenance, repair, changes or modifications to the project.
- d. An agreement that the permittees shall apply for a coastal development permit within three months of submission of the report required in subsection c. above (i.e., by August 1st) for any necessary maintenance, repair, changes or modifications to the project recommended by the report that require a coastal development permit.

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

4. Storage and Staging Areas/Access Corridors. PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director for review and written approval, final plans indicating the location of access corridors to the construction site and staging areas. The final plans shall indicate that:

- a. No overnight storage of equipment or materials shall occur on sandy beach or within Fletcher Cove public parking spaces. During the construction stages of the project, the permittee shall not store any construction materials or waste where it will be or could potentially be subject to wave erosion and dispersion. In addition, no machinery shall be placed, stored or otherwise located in the intertidal zone at any time, except for the minimum necessary to construct the seawall. Construction equipment shall not be washed on the beach or in the Fletcher Cove parking lot.

- b. Access corridors shall be located in a manner that has the least impact on public access to and along the shoreline.
- c. No work shall occur on the beach on weekends or holidays between Memorial Day weekend and Labor Day of any year.
- d. The applicant shall submit evidence that the approved plans/notes have been incorporated into construction bid documents. The staging site shall be removed and/or restored immediately following completion of the development.

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

5. Storm Design/As-Built Plans. PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit certification by a registered civil engineer that the proposed shoreline protective devices are designed to withstand storms comparable to the winter storms of 1982-83.

Within 60 days following completion of the project, the permittee shall submit as-built plans of the approved seawall and soil nails which include measurements of the distance between each residence (and remaining accessory improvements) and the bluff edge (as defined by Section 13577 of the California Code of Regulations) taken at 6 or more locations. The locations for these measurements shall be identified through permanent markers, benchmarks, survey position, written description, etc. to allow annual measurements to be taken at the same bluff location and comparisons between years to provide information on bluff retreat.

In addition, within 60 days following completion of the project, the permittee shall submit certification by a registered civil engineer, acceptable to the Executive Director, verifying the seawall and soil nails have been constructed in conformance with the approved plans for the project.

6. Future Response to Erosion. If in the future the permittee seeks a coastal development permit to construct additional bluff or shoreline protective devices, the permittee will be required to include in the permit application information concerning alternatives to the proposed bluff or shoreline protection that will eliminate impacts to scenic visual resources, recreation and shoreline processes. Alternatives shall include but not be limited to: relocation of all or portions of the principle structures that are threatened, structural underpinning, below-grade upper bluff retention system, and other remedial measures capable of protecting the principal structures and providing reasonable use of the property, without constructing bluff or shoreline stabilization devices. The information concerning these alternatives must be sufficiently detailed to enable the Coastal Commission to evaluate the feasibility of each alternative, and whether each

alternative is capable of protecting existing structures that are in danger from erosion. No additional bluff or shoreline protective devices shall be constructed on the adjacent public bluff face above the approved seawall or on the beach in front of the proposed seawall unless the alternatives required above are demonstrated to be infeasible. No shore or bluff protective devices shall be constructed in order to protect ancillary improvements (patios, decks, fences, landscaping, etc.) located between the principal residential structures and the ocean.

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, each 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 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 material amendment to this coastal development permit approved by the Commission or an immaterial amendment approved by the Executive Director.

7. Assumption of Risk. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, each applicant shall execute and record a deed restriction, in a form and content acceptable to the Executive Director, which shall provide: (a) that each applicant understands that the site may be subject to extraordinary hazard from bluff collapse and erosion and the applicant assumes the liability from such hazards; and (b) each applicant unconditionally waives any claim of liability on the part of the Commission or its successors in interest for damage from such hazards and agrees to indemnify and hold harmless the Commission, its officers, agents, and employees relative to the Commission's approval of the project for any damage due to natural hazards. 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 Coastal Commission-approved amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

8. Future Maintenance/Debris Removal. Within 15 days of completion of construction of the protective devices the permittees shall remove all debris deposited on the bluff, beach or in the water as a result of construction of shoreline protective devices. The permittees shall also be responsible for the removal of debris resulting from failure or damage of the shoreline protective devices in the future. In addition, the permittee shall maintain the permitted seawall and soil nails in their approved state. Maintenance of the seawall shall include maintaining the color, texture and integrity. Maintenance of the soil nail devices shall include maintaining the color, texture and integrity of any portions of the device that become exposed in the future. Any change in the design of the project or future additions/reinforcement of the seawall or soil nails, beyond exempt maintenance as defined in Section 13252 of the California Code of Regulations to restore

the structure to its original condition as approved herein, will require a coastal development permit. **However, in all cases, if after inspection, it is apparent that repair and maintenance is necessary, including maintenance of the color of the structures to ensure a continued match with the surrounding native bluffs, the permittee shall contact the Commission office to determine whether permits are necessary, and, if necessary, shall subsequently apply for a coastal development permit for the required maintenance.**

9. U.S. Army Corps of Engineers Permit. PRIOR TO COMMENCEMENT OF CONSTRUCTION, the permittee shall provide to the Executive Director a copy of a U.S. Army Corps of Engineers permit, or letter of permission, or evidence that no Corps permit is necessary. Any mitigation measures or other changes to the project required through said permit shall be reported to the Executive Director. Such changes shall not be incorporated into the project until the applicant obtains a Commission approved amendment to this coastal development permit, unless the Executive Director determines that no amendment is required.

10. State Lands Commission Approval. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicants shall submit to the Executive Director for review and written approval, a written determination from the State Lands Commission that:

- a) No state lands are involved in the development; or
- b) State lands are involved in the development, and all permits required by the State Lands Commission have been obtained; or
- c) State lands may be involved in the development, but pending a final determination of state lands involvement, an agreement has been made by the applicant with the State Lands Commission for the project to proceed without prejudice to the determination.

11. Public Rights. The Coastal Commission's approval of this permit shall not constitute a waiver of any public rights that exist or may exist on the property. The permittee shall not use this permit as evidence of a waiver of any public rights that exist or may exist on the property.

IV. Findings and Declarations.

The Commission finds and declares as follows:

1. Detailed Project Description. The proposed project involves the placement of colored and textured erodible concrete fill, approximately 5 feet in depth, at the toe of the bluff within an existing approximately 15 foot-high, 74 foot-long notch overhang, the construction of a 2.5 foot-wide tiedback concrete seawall over the face of the concrete fill and the insertion of a row of sixteen, approximately 4-inch diameter soil nails to be

placed at 5 foot on center at elevation +20 (MSL) across the length of the properties. The soil nails will extend approximately 30 to 35 feet into the bluff. The face of the proposed seawall and soil nails have been designed with coloring, texturing and sculpting to allow for a more natural appearance.

The subject development is located at the base of an approximately 80 ft. high coastal bluff below two single-family residential homes that were both constructed in the 1950's. At the closest point, the homes are located approximately seven feet from the edge of the bluff.

On January 17, 2001, the Executive Director granted an emergency permit to the subject applicants to construct an approximately 74 foot-long, 15 foot-high colored and textured erodible concrete infill of an existing notch overhang at the base of the bluff and to install a row of sixteen, approximately 4-inch diameter soil nails at elevation +20 (MSL) to contain a bluff fracture which resulted from a substantial bluff sloughage that occurred on an adjacent bluff in February of 2000. The applicant's engineer identified that this was the minimal work necessary to address the identified emergency that threatened the blufftop residences. The subject application serves as the required follow-up regular coastal permit to the previous emergency permit and also, now includes a seawall over the face of the notch fill.

The City of Solana Beach does not yet have a certified LCP. Therefore, Chapter 3 policies of the Coastal Act is the standard of review.

2. Site/Permit History. In 1996 the Commission approved development of a remodel and second story addition to the existing approximately 942 sq. ft. single-family residence at 319 Pacific Avenue (CDP No. 6-95-139/Minturn). In July of 1997 the permit was assigned to one of the current applicants (Jonathon Corn). In May of 1998 the property owner at 319 Pacific Avenue requested an extension of the residential permit (6-95-139-E1/Corn). At the time of the extension request, staff requested that the applicant provide an updated geotechnical assessment of the geologic conditions of the subject site to determine whether changed circumstances existed which would affect the project's continued consistency with the Coastal Act. Because the information was not provided within one year, it became necessary for the applicant to apply for an additional extension request in April of 1999 (6-95-139-E2/Corn). In July of 1999, following the submission of updated geotechnical information, the Commission denied the applicant's request to extend the residential addition permit finding that there were changed circumstances in the form of loss of beach sand, bluff retreat and erosion, and the discovery of a clean sands layer within the mid-bluff area.

In addition, in December of 1997 the Commission approved the temporary placement of rip-rap at the base of the bluff below 319 Pacific Avenue as a preemptive measure to protect the bluff face from the potential damaging effects of the winter storms of 1997-98 (6-97-131/Corn). As required by the permit, the temporary rip-rap was removed prior to April 15, 1998. The Commission also permitted similar rip-rap requests and their subsequent removal at various other locations along the Solana Beach shoreline in

December of 1997 in anticipation of severe winter storms and wave action resulting from the effects of an El Niño condition (ref. CDP's 6-97-125 to 6-97-138/Baggot, et. al.).

As previously cited, the residence at 311 Pacific Avenue was constructed in the 1950's. A search of Commission records indicates that no coastal development permits have been requested for additional development on the top of the bluff at 311 Pacific Avenue. However, in August of 1999 the Commission approved the construction of a 352-foot long, 35-foot high, 2 ½ foot thick, colored and textured shotcrete tied-back seawall along the base of the coastal bluff commencing half-way across the length of the bluff below 311 Pacific Avenue and extending south below eight single-family residences (CDP #6-99-100/Presnell, et. al.). Emergency permits have also been approved for construction of the 352 foot-long seawall because of a delay in the release of the regular permit due to difficulties involved with the recording of deed restrictions required by coastal permit #6-99-100 (6-99-135-G/Presnell, et. al. and 6-00-19-G/Presnell, et. al.). The seawall has now been substantially completed and the proposed 15 foot-high seawall is proposed to be attached to its northern end.

3. Geologic Conditions and Hazards. Section 30235 of the Coastal Act states, in part:

Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply.

In addition, 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...

Coastal Act Section 30235 acknowledges that seawalls, revetments, cliff retaining walls, groins and other such structural or "hard" solutions alter natural shoreline processes. Thus, such devices are required to be approved only when necessary to protect existing structures. The Coastal Act does not require the Commission to approve shoreline altering devices to protect vacant land or in connection with construction of new development. A shoreline protective device proposed in those situations is likely to be inconsistent with various other Coastal Act policies. For example, Section 30252 addresses new development and requires that it be sited and designed to avoid the need

for protective devices that would substantially alter natural landforms along the bluffs and cliffs.

In addition, the Commission has generally interpreted Section 30235 to require the Commission to approve shoreline protection only for existing principal structures. The Commission must always consider the specifics of each individual project, but has found in many instances that accessory structures such as patios, decks and stairways are not required to be protected under Section 30235 or can be protected from erosion by relocation or other means that does not involve shoreline protection. The Commission has historically permitted at grade structures within the geologic setback area recognizing they are expendable and capable of being removed rather than requiring a protective device that alters natural landforms along bluffs and cliffs. In this particular case, there is an existing patio within the geologic setback area for 319 Pacific Avenue.

The proposed project involves the fill of an existing notch overhang with an erodible concrete mix, construction of an approximately 74-foot long, 15-foot high tiedback concrete seawall on the public beach below two existing single-family residences on the face of the erodible concrete fill and installation of a row of approximately 30 to 35 foot-long soil nails at elevation +20 (MSL). The insertion of the soil nails and the installation of an erodible mix of colored and textured infill has previously been permitted under a separate emergency permit (ref. Emergency Permit No. 6-01-001-G). The installation of the erodible concrete and soil nails was identified by the applicant's engineer as the minimal work necessary to address the emergency situation on the site. The work requested by the emergency permit is currently underway and should be completed by the time of the subject hearing.

The applicants have submitted a geotechnical study documenting the geologic structure and recent history of the bluffs in the project area. The geotechnical evaluation identifies the bluffs in the location of the proposed project are approximately 80 feet in height and consists of an underlying layer of Torrey Sandstone, an approximate 10 foot-high layer of "clean sands" above the Torrey Sandstone and an upper layer of Marine Terrace Deposits ("Emergency Permit Request for Coastal Bluff Stabilization 311 and 319 Pacific Avenue" by Group Delta Consultants dated December 5, 2000). The report documents that the adjacent property to the north of the subject site experienced a collapse of an approximately 10 foot in depth notch overhang resulting in significant bluff sloughage and fracturing affecting the lower bluff. The geotechnical report identifies that the collapse undermined the lower 20 feet of terrace deposits and resulted in a "near-vertical scarp extending up to about elevation 45 feet, exposing clean sands and placing the bluff-top structures in immediate peril". In addition, the report documents that the collapse extended approximately 20 feet south past the subject property line at 319 Pacific Avenue fracturing the lower sea cliff. The report also identifies that the notch overhang below the subject site is approximately 15 feet high and 12 feet in depth. The applicant's engineer asserts that the unless the proposed seawall and soil nail structures are installed, the notch overhang will soon collapse exposing the clean sands layer which will lead to upper bluff sloughage and an immediate threat to the blufftop residences.

The presence of this clean sands lens within the bluffs along the Solana Beach shoreline has previously been identified in geotechnical reports submitted in conjunction with seawall, seacave and notch infill projects south of the subject site (ref. CDP #6-99-100/Presnell, et. al, #6-99-103/ Coastal Preservation Association, 6-00-66/Pierce, Monroe). These reports document that the layer of clean sands extends south to Fletcher Cove. In addition, an exposed clean sands layer has been observed in the sections of the bluff adjacent to Tide Beach Park, approximately 1,500 feet north of the subject site, suggesting the layer extends as least as far north as Tide Beach.

According to the applicant's geotechnical report, the clean sand layer is a very loose sandy material with a limited amount of tension and a very minor amount of cohesion, both of which cause the sandy material to dissipate easily, making this clean sand layer, once exposed, susceptible to wind blown erosion and continued sloughing as the sands dries out and loses the tension that initially held the materials together. Once exposed, gentle sea breezes and any other perturbations, such as landing birds or low-flying helicopters, can be sufficient triggers of small or large volume bluff collapses, since the loss of the clean sands eliminates the support for the overlying, slightly more cemented, terrace deposits.

The geotechnical report also states that the typical mechanism of sea cliff retreat along the Solana Beach shoreline involves the slow abrasion and undercutting of the lower Torrey Sandstone from wave action which becomes more pronounced in periods of storms, high surf and high tides. Other contributing factors to sea cliff retreat include fracturing, jointing, sea cave and overhang collapse and the lack of sand along the shoreline. The geotechnical report identifies that the cumulative effects of "extensive urbanization of the coastal watersheds" and mining of sands within the County's rivers over the last 50 years has resulted in the effective loss of sand supply for the County's beaches. In addition, the report indicates that the El Nino storms of 1997-98 resulted in marine erosion of up to 8 to 10 feet and the formation of extensive sea caves and notch overhangs along the Solana Beach shoreline. The subject geotechnical report identifies that the current sea cliff erosion rate for this section of the shoreline is 0.4 to 0.5 ft. per year. However, as indicated, episodic events such as sea cave or notch overhang collapses can accelerate that process.

Although the sea cliff below the existing residence has experienced erosion at a faster rate than has occurred in recent decades, the geotechnical report identifies that the imminent threat to the residences is due to the recent discovery of the clean sands layer within the bluff face. The subject residences are located as close as 7 feet from the edge of the bluff. The applicant's engineer indicates that the collapse of the upper bluff resulting from the collapse of the notch overhang and the exposure of the clean sands would lead to the undermining of the residential structures.

According to the applicant's geotechnical consultant, the mechanism of bluff collapse that occurs in conjunction with a clean sands lens is significantly more catastrophic than typical bluff collapses. The presence of the clean sands creates a process whereby the clean sands rapidly undermine the upper sloping terrace deposits causing the upper bluff

to collapse thereby exposing more clean sands to wind erosion which then results in more upper bluff collapses. This cycle occurs so quickly (over months or days, rather than years) that the upper bluff never achieves a stable angle of repose. In 1998, following the exposure of the clean sands lens below 261 Pacific Avenue (six lots south of the subject site), a section of the bluff collapsed suddenly and without warning, leaving a vertical headscarp upwards of 25 feet in height at the top of the bluff. The applicant asserts that unless the base of the bluff is afforded shoreline protection, additional sea cliff sloughage will expose the layer of clean sands resulting in a potential immediate upper bluff failure and an immediate threat to the residences at the top of the bluff. The Commission's staff engineer has reviewed the applicant's assessment and concurs with its conclusions. Thus, given the amount of documented erosion on the site following the El Nino storms of 1997 and 1998, the significant bluff collapse that occurred in February 2000 on the northern adjacent site and extending onto the subject site, the presence of the clean sands and the extreme erodibility of these sands once exposed, substantial evidence has been provided to document that the existing primary blufftop structures are in danger from erosion.

Alternatives

Although it has been documented that the primary structures at the top of the bluff are threatened by erosion, there are a variety of ways in which the threat can be addressed. Under the policies of the Coastal Act, the project must be the least-environmentally damaging alternative.

The applicants have submitted an analysis by a geotechnical engineer which reviews several alternatives to the proposed development including: a higher seawall to contain the clean sands layer; drainage controls; underpinning, removal and/or relocation of portions of or the entire primary structures and chemical grouting of the clean sands layer.

The applicants' analysis describes the construction of a 25 to 35 foot-high tiedback concrete seawall, similar to what exists on the south side of the subject site, as an effective alternative to the proposed 15 foot-high seawall and soil nails proposal. A larger seawall would provide protection to the entire sea cliff and effectively contain the clean sands layer. However, the report documents that since the notch overhang has not yet collapsed exposing the clean sands layer, the proposed 15 foot-high seawall and soil nails could stabilize the site and reduce the probability of exposure of the clean sands. The proposed minimum work would preserve 10 to 20 feet of the natural bluff which would otherwise be covered by the larger seawall structure.

The applicants' analysis indicates that underpinning of the existing homes alone is not a feasible alternative to the proposed project, since the threat to the site derives from the lower bluff overhang and the presence of the clean sands layer. In addition, the applicant's report identifies that underpinning has greater long-term visual impacts than the proposed development since its eventual exposure will not be mitigated by any architectural treatment.

The analysis also examined the feasibility of removal or relocation or some or all of the existing bluff-top residence. The applicants assert that moving the homes or removing the western portions of the homes would be infeasible, since the blufftop lots are very small, approximately 50 feet from the bluff edge to the street. For example, if the homes were to be moved back to the 40 foot setback line from the bluff, the only remaining space on the lots to build would be the 10 foot-wide area to the east between the residences and the street. However, even if the residences could be moved somewhat further away from the bluff, or, if seaward portions of the residences were removed, it would not eliminate or delay the need for the project. As described above, once exposed, the clean sand lens erodes rapidly, undermining the upper terrace deposits, which then collapse, exposing more clean sands, and continuing the cycle. Thus, according to the applicants analysis, moving the residences or removing seaward portions of the house would not significantly delay the need for the proposed project.

The alternatives analysis supports the control of irrigation on the blufftop lots to prevent excess moisture from triggering collapses of bluff-top sediments. However, the analysis indicates that current drainage directs runoff to the street and emphasizes that future bluff erosion will result from the collapse of the notch overhang and exposure of the clean sands, not from excess water resulting from bluff-top activities. Thus, instituting stricter irrigation controls would not stabilize the bluff, and would not reduce or eliminate the need for the proposed project, but should still be instituted to reduce the potential for water-related collapses in the future.

The alternatives analysis also examined the potential of chemically grouting the clean sands layer should it become exposed in the future. As previously described, an emergency permit has recently been authorized for the chemical grouting of clean sands on the bluff face north and adjacent to the subject site. In that case (6-00-155-G/Kinzel, Greenberg), the applicant's engineer asserted that chemical grouting could be an effective alternative to the construction of a higher seawall structure to contain the clean sands. However, the subject applicants' engineer asserts that "we know of no products and/or methods that can uniformly permeate the near-surface sloping terrace deposits with a chemical stabilizer, essentially solidifying the entire mass, thereby improving its in-place stability." In addition, the applicants' engineer describes chemical grouting of coastal bluffs as potentially very difficult and dangerous for the construction crew:

Like cementitious grouts, chemical grouts are injected under pressure, and when confined with adequate overburden, can effectively permeate relative large areas. However, adjacent the face of the slope, no effective confinement exists, and even controlled grouting can blow out portions of the slope face in any excessive pressure buildup occurs. ("Emergency Permit Request for Coastal Bluff Stabilization 311 and 319 Pacific Avenue" by Group Delta Consultants dated December 5, 2000)

It is anticipated that the follow-up regular coastal development permit for the emergency action to chemically grout the clean sands layer at the neighboring site will be reviewed by the Commission at its upcoming hearing of March 2001 (CDP No. 6-00-138/Kinzel,

Greenberg). Special conditions suggested for the regular permit will likely address monitoring of the grouting of the clean sands. If successful, the grouting could provide a promising new option for controlling erosion of the clean sand layer. In addition, for sites where the clean sand layer is the overriding erosion concern, it may be possible to use chemical grouting in place of seawalls and upper walls. Despite the concerns about chemical grouting that have been expressed by the applicant's engineer, study of the grouting at the neighboring site may identify that this technique is a viable alternative for stabilizing certain coastal bluffs. At this time, however, it is unclear as to whether chemical grouting would be an effective alternative to the proposed development.

In summary, the presence of the clean sands lens presents a threat of rapid erosion and bluff collapses that must be addressed by a solution that effectively contains the clean sands or prevents them from being exposed and affords protection to the residences at the top of the bluff. Given the potential for collapse of the 15 foot-high notch overhang, the fracture within the sea cliff, the presence of the clean sands and the extreme erodibility of these sands, and the close proximity of the blufftop residences to the bluff edge, substantial evidence has been provided to document that the existing primary blufftop structures are in danger from erosion. In addition, an alternatives analysis has been presented by the applicant. Therefore, the Commission is required to approve a shoreline altering device to protect the two residences, pursuant to Section 30235 of the Coastal Act.

Sand Supply/In Lieu Mitigation Fee

Although construction of a seawall is required to protect the existing principle structures on the site, Section 30235 of the Coastal Act requires that the shoreline protection be designed to eliminate or mitigate adverse impacts on local shoreline sand supply. There are a number of adverse impacts to public resources associated with the construction of shoreline protection. The natural shoreline processes referenced in Section 30235, such as the formation and retention of sandy beaches, can be significantly altered by construction of a seawall, since bluff retreat is one of several ways that beach area and beach quality sand is added to the shoreline. This retreat is a natural process resulting from many different factors such as erosion by wave action causing cave formation, enlargement and eventual collapse, saturation of the bluff soil from ground water causing the bluff to slough off and natural bluff deterioration. When a seawall is constructed on the beach at the toe of the bluff, it directly impedes these natural processes.

Some of the effects of a shoreline protective structure on the beach such as scour, end effects and modification to the beach profile are temporary or difficult to distinguish from all the other actions which modify the shoreline. Seawalls also have non-quantifiable effects to the character of the shoreline and visual quality. However, some of the effects which a structure may have on natural shoreline processes can be quantified. Three of the effects from a shoreline protective device which can be quantified are: 1) loss of the beach area on which the structure is located; 2) the long-term loss of beach which will result when the back beach location is fixed on an eroding shoreline; and 3) the amount

of material which would have been supplied to the beach if the back beach or bluff were to erode naturally.

Loss of beach material and loss of beach area are two separate concerns. A beach is the result of both sandy material and a physical area between the water and the back beach. Thus, beach area is not simply a factor of the quantity of sandy beach material. In Solana Beach, the shoreline is a shallow bedrock layer covered by a thin veneer of sand. The bedrock layer provides an area for collection of sandy material. The sand material is important to the overall beach experience, but even without the sand, the bedrock layer provides an area for coastal access between the coastal bluff and the ocean. The loss of beach material that will be a direct result of this project can be balanced or mitigated by obtaining similar quality and quantity of sediment from outside the littoral cell and adding this sediment to the littoral cell. There are sources of beach quality sediment that can be drawn upon to obtain new sediment for the littoral cell. Unfortunately there is not a source of extra beach land that can be used to add new land area to the littoral cell. Beach nourishment is a method that allows us to shift the shore profile seaward and create a new area of dry beach. This will not create new coastal land, but will provide many of the same benefits that will be lost when the beach area is covered by a seawall or "lost" through passive erosion when the back bluff location is fixed.

It is possible to estimate the volume of sand needed to create a given area of dry beach through beach nourishment. The proposed project will result in a loss of 555 sq. ft. of beach due to the long-term physical encroachment of the seawall and infill (based on a 74-foot length and 7.5 foot width). In addition, there will be 296 sq.ft. of beach area that will no longer be formed because the back of the beach will be fixed. This 851 sq.ft. of beach area [555 + 296] cannot be directly replaced by land, but a comparable area can be built through the one-time placement of 766 cubic yards of sand on the beach seaward of the seawall as beach nourishment. Thus, the impact of the seawall on beach area can be quantified as 766 cubic yards of sand. This estimate is only a "rough approximation" of the impact of the seawall on beach area because a one-time placement of this *volume* of sand cannot result in creation of beach *area* over the long term.

In addition to the impact on beach area, there is the amount of beach material that would have been added to the beach if natural erosion had been allowed to continue at the site, which can be calculated at a volume of 678 cubic yards. This 678 cubic yards of sand that would have been added to the littoral cell, plus the 766 cubic yards of sand associated with the impact to beach area, totals 1,444 cubic yards of sand that are needed to balance the quantifiable impacts from the entire project. Special Condition #2 requires the applicant to deposit an in-lieu fee to fund beach sand replenishment of 1,444 cubic yards of sand, as mitigation for impacts of the proposed shoreline protective device on beach sand supply and shoreline processes.

In the case of the proposed project, the fee calculates to be \$18,772, based on 1,444 cubic yards of sand multiplied by the cost of obtaining (and placing on the beach) one cubic yard of sand, as proposed by the applicants' engineer at \$13 per cubic yard.

The following is the methodology used by Commission staff develop the in-lieu fee amount. The methodology uses site-specific information provided by the applicant as well as estimates, derived from region-specific criteria, of both the loss of beach material and beach area which could occur over the life the structure, and of the cost to purchase an equivalent amount of beach quality material and to deliver this material to beaches in the project vicinity.

The following is a description of the methodology. The actual calculations which utilize values that are applicable to the subject sites, and were used as the basis for calculating the estimated range of the mitigation fee, are attached as Exhibit 6 to this report.

Fee = (Volume of sand for mitigation) x (unit cost to buy and deliver sand)

$$M = V_t \times C$$

where

M = Mitigation Fee

V_t = Total volume of sand required to replace losses due to the structure, through reduction in material from the bluff, reduction in nearshore area and loss of available beach area (cubic yards). Derived from calculations provided below.

C = Cost, per cubic yard of sand, of purchasing and transporting beach quality material to the project vicinity (\$ per cubic yard). Derived from the average of three written estimates from sand supply companies within the project vicinity that would be capable of transporting beach quality material to the subject beach, and placing it on the beach or in the near shore area.

$$V_t = V_b + V_w + V_e$$

where

V_b = Volume of beach material that would have been supplied to the beach if natural erosion continued, based on the long-term regional bluff retreat rate, design life of the structure, percent of beach quality material in the bluff, and bluff geometry (cubic yards). This is equivalent to the long-term reduction in the supply of bluff material to the beach resulting from the structure.

V_w = Volume of sand necessary to replace the beach area that would have been created by the

natural landward migration of the beach profile without the seawall, based on the long-term regional bluff retreat rate, and beach and nearshore profiles (cubic yards)

V_e = Volume of sand necessary to replace the area of beach lost due to encroachment by the seawall; based on the seawall design and beach and nearshore profiles (cubic yards)

$$V_b = (S \times W \times L/27) \times [(R h_s) + (h_u/2 \times (R + (R_{cu} - R_{cs})))]$$

where

R = Long-term regional bluff retreat rate (ft./yr.), based on historic erosion, erosion trends, aerial photographs, land surveys, or other accepted techniques. For the Solana Beach area, this regional retreat has been estimated to be 0.2 ft./year. This value may be used without further documentation. Alternative retreat rates must be documented by the applicant and should be the same as the predicted retreat rate used to estimate the need for shoreline armoring.

L = Design life of armoring without maintenance (yr.) If maintenance is proposed and extends the life of the seawall beyond the initial estimated design life, a revised fee shall be determined through the coastal development permit process.

W = Width of property to be armored (ft.)

h = Total height of armored bluff (ft.)

S = Fraction of beach quality material in the bluff material, based on analysis of bluff material to be provided by the applicant

h_s = Height of the seawall from the base to the top (ft)

h_u = Height of the unprotected upper bluff, from the top of the seawall to the crest of the bluff (ft)

R_{cu} = Predicted rate of retreat of the crest of the bluff, during the period that the seawall would be in place, assuming no seawall were installed (ft/yr). This value can be assumed to be the same as R unless the applicant provides site-specific geotechnical information supporting a different value.

R_{cs} = Predicted rate of retreat of the crest of the bluff, during the period that the seawall would be in place, assuming the seawall has been installed (ft/yr). This value will be assumed to be zero unless the applicant provides site-specific geotechnical information supporting a different value.

NOTE: For conditions where the upper bluff retreat will closely follow the lower bluff, this volume will approach a volume of material equal to the height of the total bluff, the width of the property and a thickness equal to the total bluff retreat that would have occurred if the seawall had not been constructed. For conditions where the upper bluff has retreated significantly and would not be expected to retreat further during the time that the seawall is in place, this volume would approach the volume of material immediately behind the seawall, with a thickness equal to the total bluff retreat that would have occurred if the seawall had not been constructed.

$$V_w = R \times L \times v \times W$$

where

R = Long-term regional bluff retreat rate (ft./yr.), based on historic erosion, erosion trends, aerial photographs, land surveys, or other accepted techniques. For the Encinitas area, this regional retreat has been estimated to be 0.2 ft./year. This value may be used without further documentation. Alternative retreat rates must be documented by the applicant and should be the same as the predicted retreat rate used to estimate the need for shoreline armoring.

L = Design life of armoring without maintenance (yr.) If maintenance is proposed and extends the life of the seawall beyond the initial estimated design life, a revised fee shall be determined through the coastal development permit process.

v = Volume of material required, per unit width of beach, to replace or reestablish one foot of beach seaward of the seawall; based on the vertical distance

from the top of the beach berm to the seaward limit of reversible sediment movement (cubic yards/ft of width and ft. of retreat). The value of v is often taken to be 1 cubic yard per square foot of beach. In the report, "Oceanside Littoral Cell Preliminary Sediment Budget Report" (December 1987, part of the Coast of California Storm and Tide Wave Study, Document #87-4), a value for v of 0.9 cubic yards/square foot was suggested. If a vertical distance of 40 feet is used for the range of reversible sediment movement, v would have a value of 1.5 cubic yards/square foot (40 feet x 1 foot x 1 foot / 27 cubic feet per cubic yard). These different approaches yield a range of values for v from 0.9 to 1.5 cubic yards per square foot. The value for v would be valid for a region, and would not vary from one property to the adjoining one. Until further technical information is available for a more exact value of v , any value within the range of 0.9 to 1.5 cubic yards per square foot could be used by the applicant without additional documentation. Values below or above this range would require additional technical support.

$W =$ Width of property to be armored (ft.)

$$V_e = E \times W \times v$$

where

$E =$ Encroachment by seawall, measured from the toe of the bluff or back beach (ft.)

$W =$ Width of property to be armored (ft.)

$v =$ Volume of material required, per unit width of beach, to replace or reestablish one foot of beach seaward of the seawall, as described above;

The San Diego Association of Governments (SANDAG) has adopted the Shoreline Preservation Strategy for the San Diego region and is currently working on techniques toward its implementation. The Strategy considers a full range of shoreline management tactics, but emphasizes beach replenishment to preserve and enhance the environmental quality, recreational capacity, and property protection benefits of the region's shoreline. Funding from a variety of sources will be required to implement the beach replenishment and maintenance programs identified in the SANDAG Strategy. In this particular case, SANDAG has agreed to administer a program which would identify projects which may be appropriate for support from the beach sand replenishment fund, through input from

the Shoreline Erosion Committee which is made up of representatives from all the coastal jurisdictions in San Diego County. The Shoreline Erosion Committee is currently monitoring several large scale projects, both in and out of the coastal zone, they term "opportunistic sand projects", that will generate large quantities of beach quality material suitable for replenishing the region's beaches. The purpose of the account is to aid in the restoration of the beaches within San Diego County. One means to do this would be to provide funds necessary to get such "opportunistic" sources of sand to the shoreline.

The applicant is being required to pay a fee in-lieu of directly depositing the sand on the beach, because the benefit/cost ratio of such an approach would be too low. Many of the adverse effects of the seawall on sand supply will occur gradually. In addition, the adverse effects impact the entire littoral cell but to different degrees in different locations throughout the cell (based upon wave action, submarine canyons, etc.) Therefore, mitigation of the adverse effects on sand supply is most effective if it is part of a larger project that can take advantage of the economies of scale and result in quantities of sand at appropriate locations in the affected littoral cell in which it is located. The funds will be used only to implement projects which benefit the area where the fee was derived, and provide sand to the region's beaches, not to fund operations, maintenance or planning studies. Such a fund will aid in the long-term goal of increasing the sand supply and thereby reduce the need for additional armoring of the shoreline in the future. The fund also will insure available sandy beach for recreational uses. The methodology, as proposed, ensures that the fee is roughly proportional to the impacts to sand supply attributable to the proposed seawall. The methodology provides a means to quantify the sand and beach area that would be available for public use, were it not for the presence of the seawall.

The above-described impacts on the beach and sand supply have previously been found to result from seawalls in other areas of North County. In March of 1993, the Commission approved CDP #6-93-85/Auerbach, et al for the construction of a seawall fronting six non-continuous properties located in the City of Encinitas north of the subject site. In its finding for approval, the Commission found the proposed shoreline protection would have specific adverse impacts on the beach and sand supply and required mitigation for such impacts as a condition of approval. The Commission made a similar finding for several other seawall developments within San Diego County including an August 12, 1999 approval (ref CDP No. 6-99-100/Presnell, et. al) for the approximately 352-foot-long seawall project located two lots south of the subject development. (ref. CDP Nos. 6-93-36-G/Clayton, 6-93-131/Richards, et al, 6-93-136/Favero, 6-95-66/Hann, 6-98-39/Denver/Canter and 6-99-41/Bradley).

In addition to the adverse impacts the seawall will have on the beach as detailed above, the Commission finds that the proposed seawall could also have adverse impacts on adjacent unprotected properties caused by wave reflection, which leads to accelerated erosion. Numerous studies have indicated that when continuous protection is not provided, unprotected adjacent properties experience a greater retreat rate than would occur if the protective device were not present. This is due primarily to wave reflection off the protective structure and from increased turbulence at the terminus of the seawall.

According to James F. Tait and Gary B. Griggs in Beach Response to the Presence of a Seawall (A Comparison of Field Observations) "[t]he most prominent example of lasting impacts of seawalls on the shore is the creation of end scour via updrift sand impoundment and downdrift wave reflection. Such end scour exposes the back beach, bluff, or dune areas to higher swash energies and wave erosion." As such, as the base of the bluff continues to erode on the unprotected adjacent properties, failure of the bluff is likely. Thus, future failures could "spill over" onto other adjacent unprotected properties, prompting requests for much more substantial and environmentally damaging seawalls to protect the residences. This then starts a "domino" effect of individual requests for protection.

In response to these concerns, the applicants' engineer has noted that the proposed seawall will be attached to seawalls on either side and, therefore, the proposal will not have "end effects". An approximately 35 foot-high seawall has been constructed on the south side of the subject site and the proposal involves a direct and sculpted tie-in to the existing seawall. However, there currently is no seawall structure located on the north side of the project site, although a proposed 15 foot-high seawall is pending before the Commission. If the northern seawall is not permitted or constructed it will be necessary for the subject applicant to address the northern end effects of the proposed seawall. Special Condition #1 requires the applicant to submit final plans for the construction of the seawall that details either its connection to adjacent seawalls or the incorporation of a "feathered" design onto the north end of the proposed wall to gradually blend into the adjacent natural bluffs which will help to reduce the turbulence at the end of the wall that can lead to accelerated erosion of adjacent unprotected bluffs.

In addition, if the proposed wall were damaged in the future (e.g. as a result of wave action, storms, etc.) it could threaten the stability of the site, which could lead to requests for more bluff alteration. Damage to the seawall could adversely affect the beach by resulting in debris on the beach and/or creating a hazard to the public using the beach. In addition, excessive wear of the seawall could result in the loss of or damage to the color or texture of the seawall resulting in adverse visual impacts (discussed in more detail in a subsequent section of this report). Therefore, in order to find the proposed seawall consistent with the Coastal Act, the Commission finds that the condition of the seawall and soil nails in their approved state must be maintained for the estimated life of the structures. Further, in order to ensure that the permittee and the Commission know when repairs or maintenance are required, the permittee must monitor the condition of the seawall annually, for three years and at three year intervals after that, unless a major storm event occurs. The monitoring will ensure that the permittee and the Commission are aware of any damage to or weathering of the seawall wall and can determine whether repairs or other actions are necessary to maintain the seawall in its approved state.

Therefore, Special Condition #3 requires the applicant to submit a monitoring report which evaluates the condition and performance of the seawall and soil nails and overall site stability, and submit an annual report with recommendations, if any, for necessary maintenance, repair, changes or modifications to the project.

Special Condition #1 requires the applicants to submit final plans for the project indicating that the seawall conforms to the bluff contours, will connect to adjacent seawalls or incorporate a feathered designed return wall if no seawall is constructed on the north side of the side and demonstrates that existing irrigation systems on the blufftop have been removed, as these would impact the ability of the seawall and other shoreline protection devices to adequately stabilize the site. The final plans, are designed to ensure that overall site conditions which could adversely impact the stability of the bluff have been addressed.

To assure the proposed shore/bluff protection has been constructed in compliance with the approved plans, Special Condition #5 has been proposed. This condition requires that, within 60 days of completion of the project, as built-plans and certification by a registered civil engineer be submitted that verifies the proposed seawall has been constructed in accordance with the approved plans.

Special Condition #6 requires a deed restriction be recorded by the applicants acknowledging that alternative measures must be implemented on the applicants' blufftop property in the future, should additional stabilization be required, which would avoid additional alteration of the natural landform of the public beach or coastal bluffs, but would reduce risk to the principle residential structures and provide reasonable use of the property. The condition will ensure that future property owners will be aware that any future proposals for additional protection devices on public property, such as upper bluff stabilization, will require an alternative analysis similar to one required for the subject project. If there are feasible alternatives to new protection such as removal of structures or installation of a below-grade retention system that would have less impact on visual quality, sand supply, or public access, the Commission will require implementation of those alternatives. The condition also states that no shore or bluff protection shall be permitted for ancillary improvements located within the blufftop setback area. Through this condition, the property owner is required to acknowledge the risks inherent in the subject property and that there are limits to the structural protective measures that may be permitted on the adjacent public property in order to protect the existing development in its current location.

Special Conditions #9 requires the applicant to submit a copy of any required permits from the Army Corps of Engineers, to ensure that no additional requirements are placed on the applicant that could require an amendment to this permit.

Also, due to the inherent risk of shoreline development, Special Condition #7 requires the applicant to waive liability and indemnify the Commission against damages that might result from the proposed shoreline devices or their construction. The risks of the proposed development include that the proposed shoreline devices will not protect against damage to the residences from bluff failure and erosion. In addition, the structures themselves may cause damage either to the applicants' residences or to neighboring properties by increasing erosion of the bluffs. Such damage may also result from wave action that damages the seawall. Although the Commission has sought to minimize these risks, the risks cannot be eliminated entirely. Given that the applicants

have chosen to construct the proposed shoreline devices despite these risks, the applicants must assume the risks. Accordingly, Special Condition #7 requires that the applicants record a deed restriction that evidences their acknowledgment of the risks and that indemnifies the Commission against claims for damages that may be brought by third parties against the Commission as a result of its approval of this permit. Only as conditioned can the proposed project be found consistent with Sections 30235 and 30253 of the Coastal Act.

Special Condition #8 notifies the applicants that they are responsible for maintenance of the herein approved shore and bluff protection to include removal of debris deposited on the beach during and after construction of the structures. The condition also indicates that, should it be determined that maintenance of the proposed structures are required in the future, including maintenance of the color and texture, the applicant shall contact the Commission office to determine if permits are required.

In summary, the applicants have documented that the existing bluff top primary structures are in danger from erosion and subsequent bluff failure. In addition, the applicants have submitted an extension alternatives analysis. Thus, the Commission is required to approve the proposed protection for the two residences. Since the proposed seawall will contribute to erosion and geologic instability over time on adjacent unprotected properties and also deplete sand supply, occupy public beach and fix the back of the beach, Special Conditions require the applicant to require pay an in-lieu mitigation fee to offset this impact. Therefore, as conditioned, the Commission finds that the proposed seawall is consistent with Sections 30235, and 30253 of the Coastal Act.

4. Visual Resources/Alteration of Natural Landforms. Section 30240(b) of the Coastal Act is applicable and states:

(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.

Section 30251 of the Coastal Act is also applicable and states, in part:

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

As stated above, the proposed development will occur on the public beach at the base of an approximately 80 ft. high coastal bluff. An approximately 352 foot-long, 35 foot-high seawall is located immediately south and adjacent to the subject site (6-99-100/Presnell, et.al). The seawall actually commences on the southern half of the property below 311

Pacific Avenue. The two adjacent lots to the north have recently been granted an emergency permit to grout an area of exposed clean sands lens and to install two rows of tiebacks across the face of the bluff at elevations +13 and +19 (MSL) to contain bluff fractures which resulted from a substantial bluff sloughage that occurred in February of 2000. The follow-up regular coastal permit request for the emergency action along with a request to construct a 15 foot-high seawall similar to the subject development and to construct a below-grade retention system is pending before the Commission (6-00-138/Kinzel/Greenberg). The subject application and the neighboring proposed seawall request when combined and connected to the existing 352 foot-long, 35-foot-high wall would represent approximately 522 feet of shoreline armoring. The bluffs north of the subject site currently remain in a natural state, with virtually no existing bluff or shore protection. As such, the potential for adverse impacts on visual resources associated with the proposed development could be significant.

The applicants are proposing to infill a notch overhang with colored and textured erodible concrete, construct an approximately 15-foot high tied-back concrete seawall seaward of the fill and install one row of soil nails into the bluff above the seawall. As discussed in the previous section, the seawall has been minimally designed at 15 feet in height versus 35 feet in height. To mitigate the visual impacts of the proposed development, the applicant proposes to color and texture the seawall. In addition, the proposed soil nails located above the seawall at elevation +20 (MSL) will be recessed into the bluff and covered with a sculpted and colored shotcrete to match the surrounding bluff.

In terms of the color and texturing of the proposed seawall, a similar design was incorporated into the adjacent 352-foot-long seawall to the south which today very closely mimics the natural face of the lower sea cliff. Special Condition #1 requires the submittal of detailed plans, color samples, and information on construction methods and technology for the surface treatment of the wall and soil nails. Special Condition #3 requires the applicant to monitor the protective device. This condition also requires that should the appearance of the seawall change or deteriorate in the future or soil nails become visible, the applicants must apply for a coastal development permit to maintain the visible appearance of seawall in its approved condition and/or colorize and texture (or remove) the exposed soil nails. In this way, the Commission can be assured that the proposed seawall and soil nails will blend with the natural bluffs in the area to the maximum extent feasible.

Therefore, as conditioned, the Commission finds that potential visual impacts associated with the proposed development have been reduced to the maximum extent feasible and the proposed development will include measures to prevent impacts that would significantly degrade the adjacent park and recreation area (public beach). Thus, the project can be found consistent with Sections 30240(b) and 30251 of the Coastal Act.

5. Public Access/Recreation. Pursuant to Section 30604 (c), the Coastal Act emphasizes the need to protect public recreational opportunities and to provide public access to and along the coast. Section 30210 of the Coastal Act is applicable to the proposed development and 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.

In addition, Section 30212 of the Act is applicable and states, in part:

- (a) Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where:
 - (1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources,
 - (2) adequate access exists nearby....

Additionally, Section 30220 of the Coastal Act provides:

Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.

The project site is located on a public beach utilized by local residents and visitors for a variety of recreational activities. The site is located approximately 1,500 feet north of Fletcher Cove Beach. The proposed seawall will be constructed on sandy beach area that is currently available to the public. The project will have several adverse impacts on public access.

While the proposed seawall and erodible infill has been designed to be as narrow as possible, the structures will still project approximately 7.5 feet seaward of the toe of the bluff (most of the this encroachment results from the fill of the notch area). Although the seaward encroachment of the wall appears at first glance to be minimal, as it does not extend further seaward than the dripline of the bluff, the beach along this area of the coast is narrow and at high tides and winter beach profiles, the public may be forced to walk virtually at the toe of the bluff or the area would be impassable. As such, an encroachment of any amount, including 7.5 feet for a length of 74 feet onto the sandy beach, reduces the beach area available for public use and is therefore a significant adverse impact. This is particularly true given the existing beach profiles and relatively narrow beach.

In addition to the above-described direct interference with public access by the proposed seawall, there are a number of indirect effects as well. Shoreline processes, and supply and beach erosion rates are affected by shoreline structures as described in Section 3 of this report, and thus alter public access and recreational opportunities.

It is generally accepted that the dividing line between public tidelands and private upland to tidal boundary in California is the mean high water datum (MHW). From an engineering point of view, a water boundary determined by tidal definition is not a fixed mark on the ground, such as a roadway or a fence; rather, it represents a condition at the water's edge during a particular instant of tidal cycle. Reference points such as Mean Sea Level and Mean High Water Datum, are calculated and reflect the average height of the tide levels over a period of time.

Development along the shoreline which may burden public access in several respects has been approved by the Commission. However, mitigation for any adverse impacts of the development on access and public resources is always required. The Commission's permit history reflects the experience that development can physically impede public access directly, through construction adjacent to the mean high tide line in areas of narrow beaches, or through the placement or construction of protective devices seawalls, rip-rap, and revetments. Since physical impediments adversely impact public access and create private benefit for the property owners, the Commission has found in such cases (in permit findings of #4-87-161 [Pierce Family Trust and Morgan], #6-87-371 [Van Buskirk], #5-87-576 [Miser and Cooper]) that a public benefit must arise through mitigation conditions in order that the development will be consistent with the access policies of the Coastal Act, as stated in Sections 30210, 30211, and 30212.

The development proposed in this application is the construction of a vertical seawall and installation of mid-bluff soil nails. The majority of the beach and bluffs along the Solana Beach shoreline are in public ownership, including the area subject to this review. Although the proposed seawall adheres closely to the contour of the natural bluff, the seawall will reduce lateral beach access by encroaching onto the beach and will have adverse impacts on the natural shoreline processes. Much of the beach is accessible in this area only at lower tides, and thus, the protection of a few feet of beach along the toe of the bluff is still important. This stretch of beach has historically been used by the public for access and recreation purposes. Special Condition #11 acknowledges that the issuance of this permit does not waive the public rights that may exist on the beach. The seawall and erodible concrete fill may be located on State Lands Property, and as such, Special Condition #10 requires the applicant to obtain any necessary permits or permission from the State Lands Commission to perform the work.

As stated elsewhere in these findings, Section 30235 of the Act allows for the use of such devices where it is required to protect existing development and where it has been designed to mitigate adverse impacts upon shoreline sand supply. In order to mitigate the known adverse impacts, the Commission typically requires an offer of dedication of lateral public access in order to balance the burden placed on the public with a public benefit. In this particular case, the beach and bluff are in public ownership and will remain as such. Therefore, a dedication of lateral public access is not an available mitigation option. However, Special Condition #2, discussed in a previous section of the staff report, requires the applicant to provide mitigation for adverse impacts on beach and sand area resulting from placement of the proposed seawall, which will also serve to

mitigate the impact of the loss of beach access. The mitigation will be an in-lieu fee which will be utilized for beach replenishment projects within the same littoral cell.

As debris dislodged from the seawall and the soil nail either during construction or after completion also has the potential to affect public access, Special Condition #8 has also been proposed. This condition notifies the applicant that they are responsible for maintenance and repair of the seawall and soil nails and that should any work be necessary, they should contact the Commission office to determine permit requirements. In addition, the condition requires the applicants to be responsible for removal of debris deposited on the beach during and after construction of the project.

In addition, the use of the beach or public parking areas for staging of construction materials and equipment can also impact the public's ability to gain access to the beach. While the applicant has not submitted a definitive construction staging and material storage plan for the subject development, it is likely that beach access to the site will occur via Fletcher Cove which is located approximately 1,500 feet south of the subject site. In other developments for shoreline protection along this stretch of Solana Beach shoreline, the Commission has authorized the temporary placement of steel-tracked construction equipment (which cannot traverse asphalt streets) upland of the Fletcher Cove access ramp, in an area which is not currently used for parking. In addition, the Commission has previously authorized the use of parking spaces in an existing City-owned parking lot across the street from Fletcher Cove known as the "Distillery Lot" (for its previous use) for staging and storage of equipment during construction. The applicant is proposing to utilize this space for construction staging. This free, City-owned parking area is within easy walking distance of Fletcher Cove and is currently available to any beach users or patrons of the several small commercial facilities surrounding the lot. However, it is also the only off-street, open area in the vicinity of Fletcher Cove which can accommodate the type of equipment and vehicles required to construct the proposed project, other than Fletcher Cove itself. In addition, the City of Solana Beach has in the past indicated that the lot is used only minimally, and thus has an excess capacity which can be allocated to staging and storage for the project, with only a minimal impact to beach uses.

Special Condition #4 prohibits the applicants from storing vehicles on the beach overnight, using any public parking spaces within Fletcher Cove for staging and storage of equipment, and prohibits washing or cleaning construction equipment on the beach or in the parking lot. The condition also prohibits construction on the sandy beach during weekends and holidays between Memorial Day to Labor Day of any year. Therefore, impacts to the public will be minimized to the greatest extent feasible. Thus, as conditioned, the Commission finds the project consistent with the public access and recreation policies of the Coastal Act.

6. Local Coastal Planning. Section 30604(a) also requires that a coastal development permit shall be issued only if the Commission finds that the permitted development will not prejudice the ability of the local government to prepare a Local

Coastal Program (LCP) in conformity with the provisions of Chapter 3 of the Coastal Act. In this case, such a finding can be made.

The subject site was previously in the County of San Diego Local Coastal Program (LCP) jurisdiction, but is now within the boundaries of the City of Solana Beach. The City will, in all likelihood, prepare and submit a new LCP for the area to the Commission for review. Because of the incorporation of the City, the certified County of San Diego Local Coastal Program no longer applies to the area. However, the issues regarding protection of coastal resources in the area have been addressed by the Commission in its review of the San Diego County LUP and Implementing Ordinances. As such, the Commission will continue to utilize the San Diego County LCP documents for guidance in its review of development proposals in the City of Solana Beach until such time as the Commission certifies an LCP for the City.

The City has recently prepared a draft LCP. In preparation of its LCP, the City of Solana Beach is faced with many of the same issues as the City of Encinitas, located immediately north of Solana Beach, whose LCP was certified by the Commission in March 1995. The City of Encinitas' LCP includes the intent to prepare a comprehensive plan to address the coastal bluff recession and shoreline erosion problems in the City. The plan will include at a minimum, bluff top setback requirements for new development and redevelopment; alternatives to shore/bluff protection such as beach sand replenishment, removal of threatened portions of a residence or the entire residence or underpinning existing structures; addressing bluff stability and the need for protective measures over the entire bluff (lower, mid and upper); impacts of shoreline structures on beach and sand area as well as mitigation for such impacts; impacts for groundwater and irrigation on bluff stability and visual impacts of necessary/required protective structures.

The City of Solana Beach LCP should also address these items in the context of a comprehensive approach to management of shoreline resources. As shoreline erosion along the coast rarely affects just one individual property, it is imperative that a regional wide solution to the shoreline erosion problem be addressed and solutions developed to protect the beaches. Combined with the decrease of sandy supply from coastal rivers and creeks and armoring of the coast, beaches will continue to erode without being replenished. This will, in turn, decrease the public's ability to access and recreate on the shoreline.

In the case of the proposed project, site specific geotechnical evidence has been submitted indicating that the existing structures on the project sites are in danger. The Commission feels strongly that approval of the proposed project should not send a signal that there is no need to address a range of alternatives to armoring for existing development. Planning for comprehensive protective measures should include a combination of approaches including limits on future bluff development, ground and surface water controls, beach replenishment, and even continual lower bluff protection constructed in substantial segments, as with the proposed project. Although the erosion potential on the subject site is such that action must be taken promptly, decisions

regarding future shoreline protection should be done through a comprehensive planning effort that analyzes the impact of such a decision on the entire City shoreline.

The project site is designated for Open Space Recreation in the City of Solana Beach Zoning Ordinance and General Plan, and was also designated for open space uses under the County LCP. As conditioned, the subject development is consistent with these requirements. Based on the above findings, the proposed seawall development has been found to be consistent with the Chapter 3 policies of the Coastal Act in that the need for the seawall has been documented and its adverse impacts on beach sand supply and on adjacent unprotected properties will be mitigated.

Therefore, the Commission finds the proposed development, as conditioned will not prejudice the ability of the City of Solana Beach to complete a certifiable local coastal program. However, these issues of shoreline planning will need to be addressed in a comprehensive manner in the future through the City's LCP certification process

7. Consistency with the California Environmental Quality Act (CEQA).

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

The proposed project has been conditioned in order to be found consistent with the geologic stability, visual quality, and public access policies of the Coastal Act. Mitigation measures, including conditions addressing payment of an in-lieu fee for impacts to sand supply, construction techniques consistent with the geotechnical report and the color of construction materials, will minimize all adverse environmental impacts. As conditioned, there are no feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impact which the activity may have on the environment. Therefore, the Commission finds that the proposed project is the least environmentally-damaging feasible alternative and can be found consistent with the requirements of the Coastal Act to conform to CEQA.

STANDARD CONDITIONS:

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

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

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

PACIFIC

OCEAN

Site

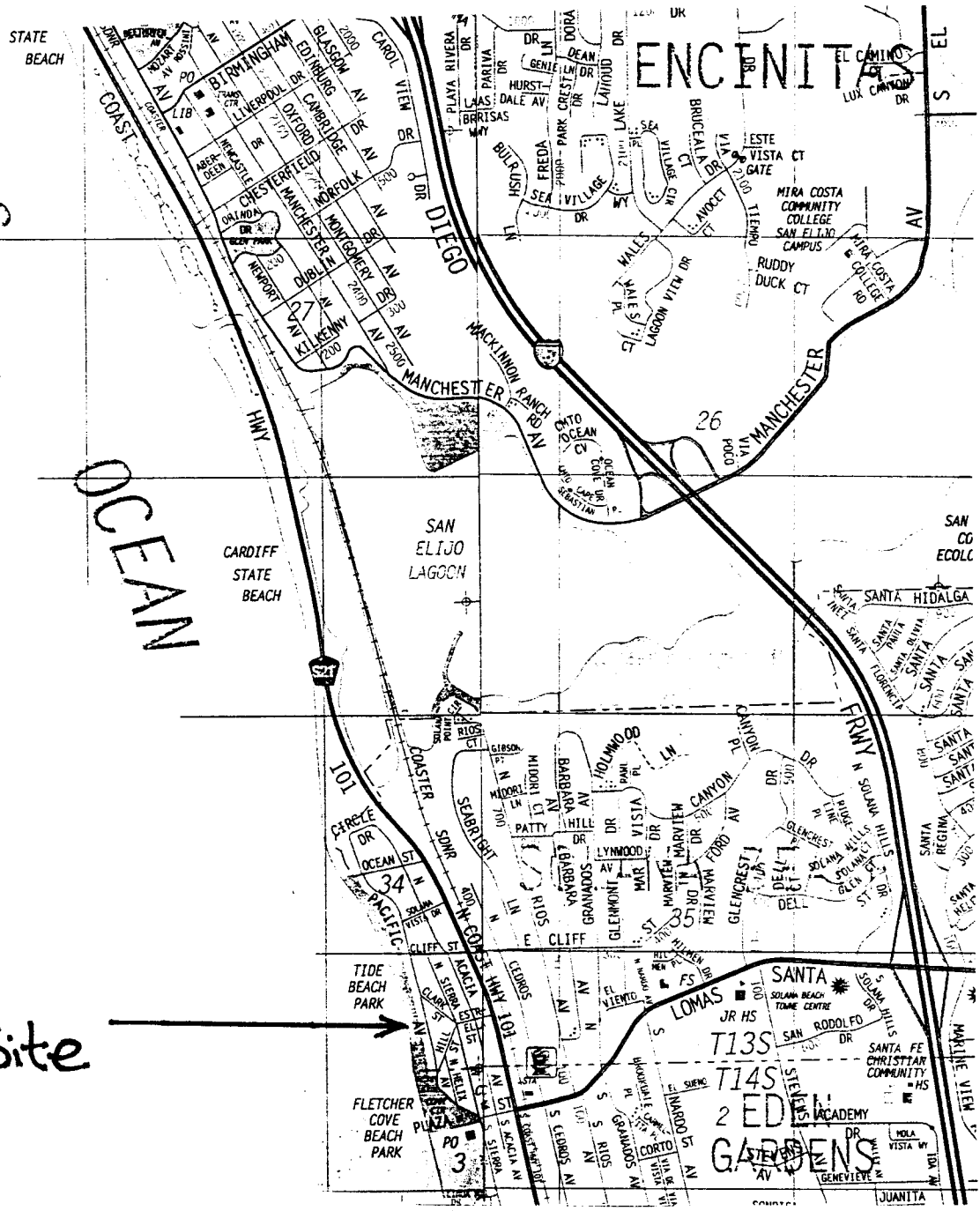

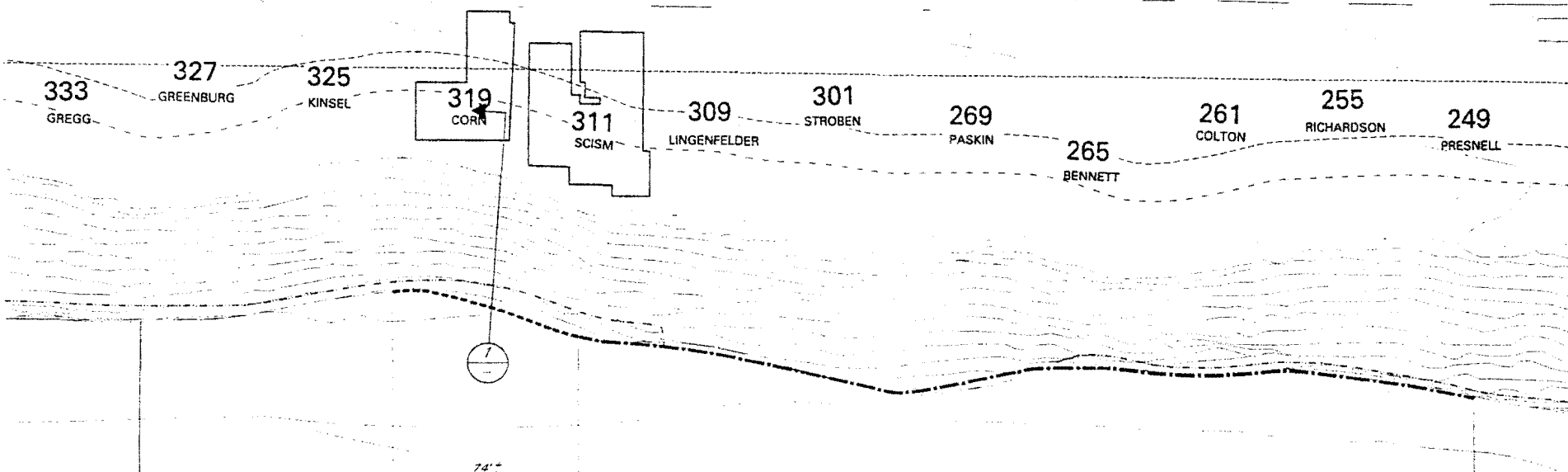


EXHIBIT NO. 1
APPLICATION NO.
6-00-36
Location Map
 California Coastal Commission

PACIFIC AVENUE



6-00-138
 Seawall, grouting
 Below-grade device
 (Subject to Commission approval)

Subject Site

Existing 352 foot-long Seawall
 (CDP NO. 6-99-100)

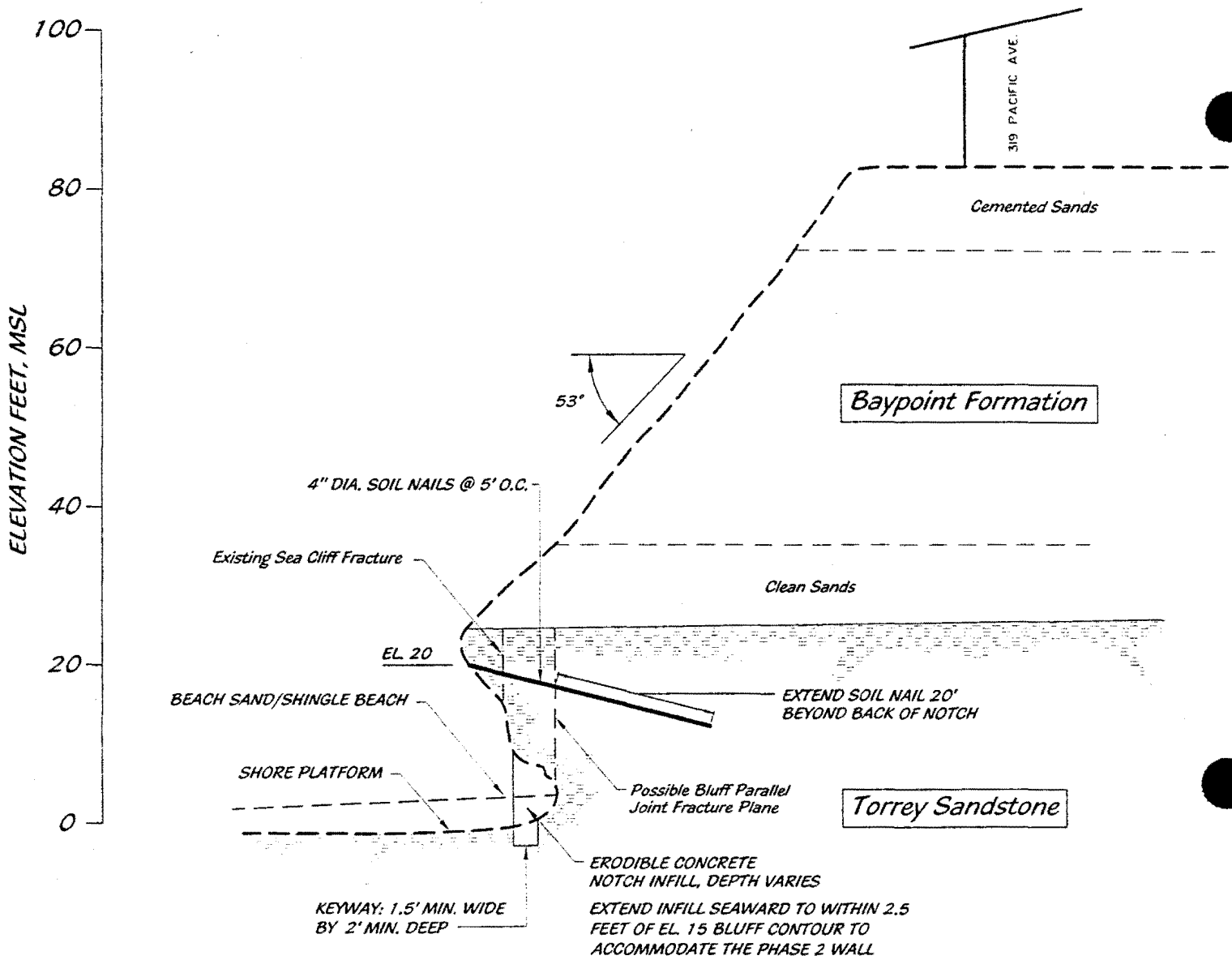
LEGEND

- - - - - Approximate location of City of Solana Beach setback from street centerline
 - - - - - Approximate location of Coastal Commission 25-foot setback line from bluff
 - - - - - Approximate location of Coastal Commission 40-foot setback line from bluff
 - - - - - Location of proposed infill
 - - - - - Location of existing seawall
- Limits of seacliff notch overhang as of 6-18-98. Additional bluff failures have occurred after this date and are not reflected on this topographic map. Except where noted.

NOTE:
 This map was prepared for the
 base map as shown on June 28, 1998
 during the base map update project.

<p>California Coastal Commission</p>	EXHIBIT NO. 2
	APPLICATION NO.
	6-00-36
	Site Plan

	311-319 PACIFIC AVENUE COASTAL BLUFF NOTCH INFILL	CITY OF SOLANA BEACH	C-3
DATE: 6/18/98	REV: 1	APPROVED FOR SUBMITTAL:	APPROVED FOR CONSTRUCTION:
SITE PLAN			4 of 8



PHASE 1
TYPICAL NOTCH FILL & SOIL NAIL CROSS SECTION

SCALE: 1"=20' (HORIZ.:VERT.)

1

NOTE: IF DRAWING IS NOT FULL SIZE (24X36)
 THEN REDUCE SCALE ACCORDINGLY

0 1 2 3

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

EXHIBIT NO. 3
APPLICATION NO.
6-00-36
 Typical Cross-
 Sections of Notch Fill
 and Soil Nails

California Coastal Commission

CALIFORNIA COASTAL
 DEVELOPMENT
 PERMIT NO.:

6-00-36

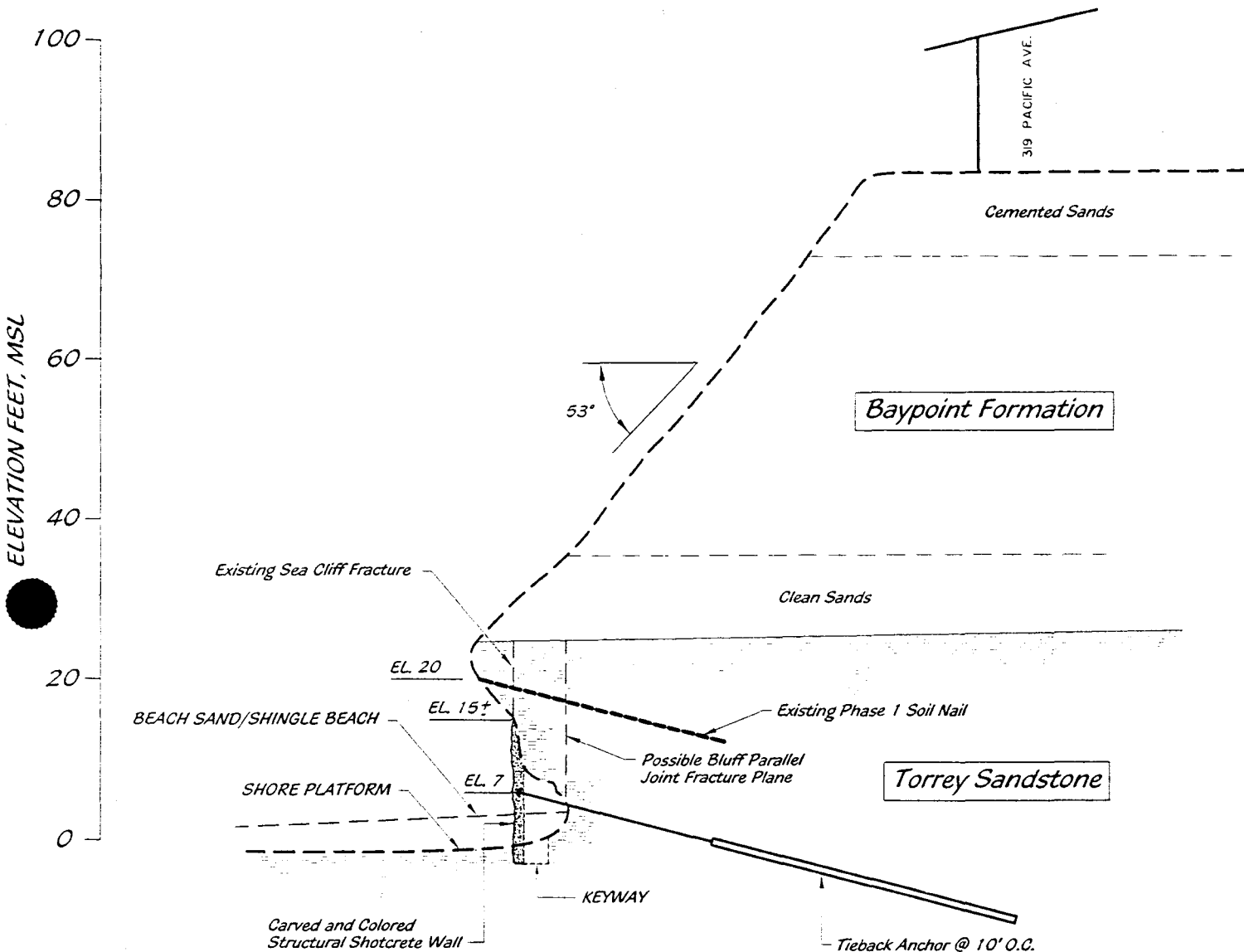
PLANS PREPARED UNDER THE SUPERVISION OF

DATE: _____
 INITIALS: _____ R.C.E. NO.: 23792

ENGINEER OF WORK:
 WALTER F. CRAMPTON

GROUP DELTA CONSULTANTS, INC.
 ENGINEERS & GEOLOGISTS
 4455 MURPHY CANYON ROAD, SUITE 100
 SAN DIEGO, CALIFORNIA 92123
 (858) 573-1777

DESIGN:		REVISIONS		
WJD	REV.	BY	DATE	APP.
GDS				



PHASE 2
TYPICAL TIED-BACK WALL CROSS SECTION

SCALE: 1"=20' (HORIZ., VERT.)

1

311-319 PACIFIC AVENUE COASTAL BLUFF NOTCH INFILL

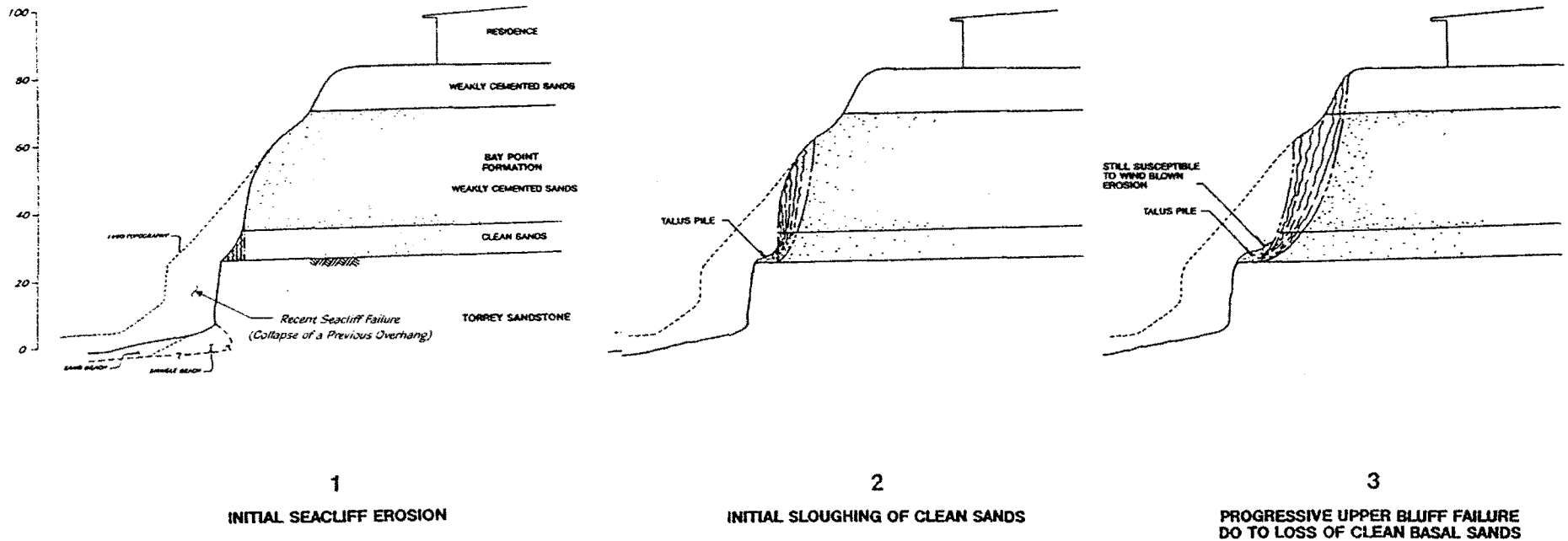
CITY OF SOLANA BEACH

CROSS SECTIONS

RECOMMENDED FOR APPROVAL		APPROVED FOR
BY: _____	EXP.: _____	BY: _____
R.C.E.: _____	EXP.: _____	CITY ENGINEER R
DATE: _____		EXP.: _____

EXHIBIT NO. 4
APPLICATION NO.
6-00-36

Typical Cross-Sections of Seawall



FAILURE MECHANISM OF CLEAN SANDS

California Coastal Commission

EXHIBIT NO. 5
APPLICATION NO.
6-00-36
Failure Mechanism of
Clean Sands

HY CANYON RD., CA 92123

Project Name: 311/319 Pacific Avenue - Project Number: 1991 - Figure Number: 5



CALCULATION OF MITIGATION FEE
FOR IMPACTS TO SAND SUPPLY
PROPOSED NOTCH INFILL
311 & 319 PACIFIC AVENUE
SOLANA BEACH, CALIFORNIA

Basic Equations:

$$M = V_t \times C \quad (1)$$

where,

M = mitigation fee,

V_t = total volume of sand required to replace losses due to the structure, and

C = cost per cubic yard of sand

$$V_t = V_b + V_w + V_e \quad (2)$$

where,

V_b = the amount of beach material that would have been supplied to the beach if natural erosion continued or the long-term reduction in the supply of bluff material to the beach, over the life of the structure; based on the long-term average retreat rate, design life of the structure, percent of beach quality material in the bluff, and bluff geometry (cubic yards)

V_w = the long-term erosion of the beach and nearshore resulting from stabilization of the bluff face and prevention of landward migration of the beach profile; based on the long-term average retreat rate, and beach and near-surface profiles (cubic yards)

V_e = the volume of sand necessary to replace the area of beach lost due to encroachment by the sea cave infill; based on the infill design and beach and nearshore profiles (cubic yards)

$$V_b = (R \times L \times W \times h \times S) / 27 \quad (3)$$

where,

R = long-term regional bluff retreat rate (ft/yr),

L = design life of armoring without maintenance (yr),

w = width of property to be armored (ft),

h = total height of armored bluff (ft),

s = fraction of beach quality material in the bluff material,

$$V_w = R \times L \times v \times W \quad (4)$$

where,

R = long-term regional bluff retreat rate (ft/yr),

L = design life of armoring without maintenance (yr),

v = volume of material required, per unit width of beach, to replace or reestablish one foot of beach seaward of the seawall, and

W = width of property to be armored (ft),

$$V_e = E \times W \times v \quad (5)$$

where,

E = average encroachment of infill, measured from back of notch or back beach (ft),

W = width of property to be armored (ft), and

v = volume of material required, per unit width of beach, to replace or reestablish one foot of beach seaward of the infill.

Site-specific values for equation variables:

C = \$13.00 per cubic yard to purchase and deliver sand



$$R = 0.2 \text{ ft/yr}$$

$$L = 20.0 \text{ years}$$

$$W = 74 \text{ feet}$$

$$S = 0.75$$

$$h = 82.5 \text{ feet}$$

$$v = 0.9 \text{ yard}^3 \text{ per foot of width and foot of retreat}$$

$$E = 7.5 \text{ feet (5 ft notch infill and 2.5 ft wall thickness)}$$

Utilizing equation (3):

$$V_h = \frac{0.2 \times 20 \times 74 \times 82.5 \times 0.75}{27}$$

$$V_h = 678 \text{ yard}^3$$

Utilizing equation (4):

$$V_w = 0.2 \times 20 \times 0.9 \times 74$$

$$V_w = 266 \text{ yard}^3$$

Utilizing equation (5):

$$V_e = 7.5 \times 74 \times 0.9$$

$$V_e = 500 \text{ yard}^3$$

Utilizing equation (2):

$$V_i = 678 + 266 + 500$$

$$V_i = 1444 \text{ yard}^3$$

Utilizing equation (1):

$$M = 1444 \times \$13.00/\text{yd}$$

$$M = \$18,772$$

Sand Mitigation Fee Parameters

W	=	74 ft
E	=	7.5 ft
v	=	0.9
R	=	0.2 ft/yr
L	=	20 yr
S	=	75%
h	=	82.5 ft
R _{cu}	=	0.2
R _{cs}	=	0
C	=	\$13/cy

December 21, 2000

Fax and Mail

Gary Cannon
Coastal Commission, San Diego Coast
7575 Metropolitan Drive Ste 103
San Diego, CA 92108-4402

RECEIVED

DEC 25 2000

CALIFORNIA
COASTAL COMMISSION
SAN DIEGO COAST DISTRICT

ORIGINAL

Re: Corn/Scism Seawall Case

Dear Mr. Cannon:

These comments are submitted on behalf of CalBeach Advocates, a California nonprofit public benefit corporation. The specific purpose of CalBeach Advocates is to preserve, maintain, and restore the natural sandy beaches, coastal bluffs, and near shore environment of California's Pacific Ocean coastline. Please make these comments part of the record of your proceedings with regard to the above matter.

As you know, the Solana Beach City Council approved the above referenced seawall / "notch fill" project on December 19, 2000. According to the applicant's representative, the events which created the need for the project were the coastal bluff erosion which occurred almost three years ago during the 1997-1998 "El Nino" storms and an upper bluff collapse on the adjacent Greenberg property 10 months ago on February 24, 2000. Six months later, in September of 2000, the applicant first attempted to process the currently proposed project using the "categorical exemption" from CEQA for "minor alterations to land." Comments in opposition were received. The applicant then attempted to process the project using a "mitigated negative declaration." Comments in opposition were again received. Suddenly, in December of 2000, the applicant submitted reports from his paid consultants that the prior events had created an emergency that required immediate action. Taking at face value the consultants' representations that the bluffs would, with "absolute certainty," collapse before an EIR could be prepared, the Council approved the projects as being exempt from CEQA under the "emergency project exemption." We believe this action violated CEQA.

The applicant's representative also stated at the City Council hearing that an emergency project permit application would be filed with your offices. In that connection, we submit that an emergency situation does not exist. The applicant's representatives will represent that they are absolutely certain that the notch will give away soon and endanger the homes above.¹

¹ If that is true, no one should be occupying the threatened homes, yet one person testified at the hearing that he was the occupant of the Scism property and had lived there for a number of years! The Corns recently moved and no longer reside at their property. If the imminent peril is that great, no one should be there!

A: EMRGCORN.SUB

EXHIBIT NO. 7
APPLICATION NO.
6-00-36
Letters of Opposition

Representations and opinions of "absolute certainty" by the applicant's own paid consultants should be given little credibility without verification by independent expert opinion beholden only to the Coastal Commission. We would thus first suggest that you obtain an independent expert opinion, paid for by the applicant, with regard to whether a true emergency exists which justifies the issuance of an emergency permit. It is our belief that the applicant simply did not want to pay for preparation of an EIR, or proceed with a mitigated negative declaration or categorical exemption of dubious legal validity.

Also, we submit you should not in any event grant an emergency permit for a structure that will be difficult or dangerous to remove, or which would cause permanent impacts to the bluffs. Otherwise, the consideration of a regular coastal permit by the Commission will be prejudiced by the "fait accompli" of the already completed project. The Commission's October 10, 2000 review of the Monroe/Pierce sea cave fill and notch fill projects (No. 6-00-66) is a perfect example.

In that case, the applicants had been granted an emergency permit to fill a 50 foot deep sea cave and notch fill. By the time the regular permit proceedings were held the sea cave fill project had been substantially completed, but the notch fill project had not. The Commission approved the regular permit for the sea cave fill project, but denied the regular permit for the notch fill project. In doing so, some members of the Commission expressed dissatisfaction that they really had no choice but to approve the sea cave fill project because it had been substantially completed. It would obviously be dangerous to workers and possibly environmentally harmful to attempt to jackhammer the concrete from the deeply inset sea cave. The Commission denied the notch fill because it did not believe that the structure above would be immediately threatened if the notch broke. However, it is reasonable to expect that the Commission would have also felt its hands were tied if the notch fill project had already been completed and removal would have caused too much harm and risk of injury and death.

Therefore, to avoid prejudicing the Commission's eventual consideration of the Corn/Scism project on its merits, we submit you should limit any emergency permit work to the least environmentally damaging alternative which does not permanently alter the status quo and tie the Commission's hands.

In the present case, the applicant's representative testified at the Solana Beach City Council hearing that what was needed in his opinion to prevent bluff collapse was to provide vertical support to the upper portion of the notch so that it did not shear off and expose the unstable "clean sands" layer above. From his testimony this vertical support could apparently be achieved by shoring up the notch from below with timbers or other structural members and jacks.

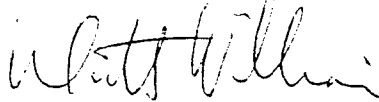
As with the question of "emergency" itself, we submit you should obtain an independent

Gary Cannon
Coastal Commission, San Diego Coast
December 21, 2000
Page 3

expert opinion, paid for by the applicant, as to the least damaging alternative to address the alleged emergency which would not prejudice the Commission's full consideration and exercise of jurisdiction over the regular permit application. The Commission should not again be faced with having no choice but to approve a project previously built under an emergency permit, when other alternatives are available.²

Sincerely,

CalBeach Advocates



W. Scott Williams
638 West Circle Dr.
Solana Beach, California 92075

c: Sara Wan, Chair (mail)
Peter Douglas, Executive Director (fax and mail)

² Approval of temporary "emergency" measures, which do not irrevocably change the status quo, is expressly permitted under the City of Solana Beach City Ordinance and could be expeditiously obtained. Section 17.62.110 permits the Planning Director, without a hearing, to issue temporary emergency permits to place rip rap, sand filled devices, and temporary wood or metal shoring. The permits are good for 180 days and can be extended. The City requires a bond or other security to guarantee eventual removal.

December 26, 2000

RECEIVED

JAN 02 2001

Gary Cannon
California Coastal Commission
San Diego, CA.

CALIFORNIA
COASTAL COMMISSION
SAN DIEGO COAST DISTRICT

RE: Corn/Scism Seawall
311 and 319 Pacific Ave.
Solana Beach


Mr. Cannon:

I am writing in opposition to a planned seawall coming before you next month. The Solana Beach City Council again passed a bluff project without an environmental study. Mr. Walt Crampton convinced the council this was again an emergency. He claims the bluff in this area will collapse within a year if not armored, endangering existing structures. I dispute this claim. A qualified independent geologist should be obtained for another opinion.

I would like to refer you to a previous like project. The C.C.C. staff report App. No. 6-98-144 of January 14, 1999.

Staff recommended denial for a series of reasons. Interestingly on page 5 the geo technical report addresses an imminent collapse. Yet on page 8 one of the bluff top residences at 215 Pacific included in this project had before the commission a request for a residential addition and a geo technical report saying, "The overall static stability is grossly stable." I have to believe that some geologists tell the property owner whatever they want to hear!

Sincerely,



Roy E. Warden

Roy E. Warden