

CALIFORNIA COASTAL COMMISSION

SAN DIEGO AREA

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REGULAR CALENDAR
STAFF REPORT AND PRELIMINARY RECOMMENDATION

Application No.: 6-05-91

Applicant: Nancy O'Neal, et.al.

Agent: Walt Crampton

Description: Maintenance of an existing notch infill at the base of the sea cliff below seven single-family residential properties including refilling of erosional pockets to the original as-built condition; filling a seacave at the south end of the existing infill with erodible concrete.

Site: On the public beach below 201-231 Pacific Avenue, Solana Beach, San Diego County. APN 263-323-01 though 04; 263-323-14 through 16.

STAFF NOTES:

Summary of Staff's Preliminary Recommendation:

Staff is recommending approval of the proposed maintenance project. The proposed project is necessary maintenance to an existing notch fill project approved by the Commission in 1999. As part of the permit approval, the Commission required that the applicants perform regular monitoring of the site and apply for permits for maintenance to the notch fill as necessary. The proposed project would restore the notch fill to its approved configuration, and does not involve any expansion to the fill area.

The previously approved notch fill was seen as a preventative measure to stop or reduce the potential for collapses of the overhanging area and to stabilize the bluff area in an area where there is evidence of the presence of a "clean sands" lens. Based on the information previously submitted by the applicants, if erosion at the site is not slowed through a project such as the one approved, and now proposed for maintenance, bluff retreat is expected to continue at a rapid pace, soon potentially threatening the existing bluff-top structures. At that point, it can be reasonably anticipated that far more massive, permanent shoreline protection (such as a 35-foot high seawall) would be proposed in order to protect the existing residences.

Up to this point, the existing notch fill has apparently had the intended effect of significantly delaying the construction of much more massive shoreline protection, which would have much more significant adverse impacts on coastal resources such as visual quality, shoreline sand supply, public access, and recreation. The proposed project is the minimum necessary to continue to accomplish this purpose.

The applicants previously provided mitigation for the impacts to sand supply in form of a \$91,806 fee to SANDAG's Sand Mitigation Fee program. The proposed maintenance was expected and required in the original permit approval, and will not have the effect of extending the life of the structure beyond that originally anticipated and covered by the mitigation fee. The project has been designed to reduce the impact to public resources to the greatest extent feasible. Special Conditions will ensure the project minimizes adverse impact to shoreline processes, public access and recreation, and the visual quality of the shoreline, because the fill will not encroach beyond the bluff face, will be colored and textured to match the surrounding natural bluffs, and must be monitored to assure it will erode consistent with the native bluff material. Therefore, impacts to coastal resources will be adequately mitigated.

Standard of Review: Chapter 3 polices of the Coastal Act, with the certified NTC Precise Plan LCP used as guidance.

Substantive File Documents: Substantive File Documents: City of Solana Beach General Plan and Zoning Ordinance; certified County of San Diego Local Coastal Program; CDP #6-99-103 (other CDPs referenced in-text); "Sea-Cave/Notch Infill Baseline Monitoring Report" by TerraCosta Consulting, 1/13/05.

I. PRELIMINARY STAFF RECOMMENDATION:

The staff recommends the Commission adopt the following resolution:

MOTION: *I move that the Commission approve Coastal Development Permit No. 6-05-91 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:

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 notch/seacave repair, irrigation and drainage plans in substantial conformance with the submitted plans dated January 13, 2005 by TerraCosta Consulting, Inc. Said plans shall first be approved by the City of Solana Beach and include the following:

- a. Detail regarding the construction method and technology utilized for texturing and coloring the notch/seacave fill. Said plans shall confirm, and be of sufficient detail to verify, that the notch/seacave shotcrete wall color and texture closely match the adjacent natural bluffs. The plan shall include a color board indicating the color of the fill material.
- b. The notch/seacave repairs shall conform as closely as possible to the natural contours of the bluff, and shall not protrude beyond the existing "drip-line" (a vertical line extending down to the sand parallel to the face of the bluff above the notch).
- c. Any existing permanent irrigation system located on each of the blufftop sites shall be removed or capped.
- d. All runoff from impervious surfaces on the blufftop lots shall be collected and directed away from the bluff edge towards the street.
- e. Existing accessory improvements (i.e., decks, patios, pool, walls, etc.) located in the geologic setback area (40 feet) on the blufftop site shall be detailed and drawn to scale on the final approved site plan.

- f. 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.
- g. The notch/seacave repairs shall not increase the linear distance of the notch fill beyond that of the previously constructed notch/fill approved through CDP #6-99-103.

The permittees 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 legally required.

2. Monitoring Program. The applicants shall continue to comply with the requirements of #6-99-103 for annual monitoring of the seacave/notch fill and blufftop structures.

3. Storage and Staging Areas/Access Corridors. **PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicants shall submit to the Executive Director for review and written approval, final plans indicating the location of construction access corridors and staging areas. The final plans shall be approved by the City of Solana Beach and indicate that:

- a. No overnight storage of equipment or materials shall occur on sandy beach or public parking spaces at Fletcher Cove. During the construction stages of the project, the permittees 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 notch fill. 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, holidays or between Memorial Day weekend and Labor Day of any year.
- d. The staging site shall be removed and/or restored immediately following completion of the development.

The applicants shall submit evidence that the approved plans/notes have been incorporated into construction bid documents.

The permittees 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 legally required.

4. Future Response to Erosion. If in the future the permittees seek a coastal development permit to construct additional bluff or shoreline protective devices, the permittees shall 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 principal structure that are threatened, structural underpinning, and other remedial measures capable of protecting the principal structure 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 or the applicable certified local government 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 seacave/notch fill or on the beach in front of the proposed seacave/notch fill unless the alternatives required above are demonstrated to be infeasible. No shoreline protective devices shall be constructed in order to protect ancillary improvements (patios, decks, pools, fences, landscaping, etc.) located between the principal residential structures and the ocean.

5. Future Maintenance/Debris Removal. Within 15 days of completion of construction of the protective devices, the permittees shall remove all debris that may have been 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 permittees shall maintain the permitted seacave/notch in its approved state. Maintenance of the seacave/notch fill shall include maintaining the color, texture and integrity. Any change in the design of the project or future additions/reinforcement of the seacave/notch fill and wall beyond exempt maintenance as defined in Section 13252 of Title 14 of the California Code of Regulations to restore the structure to its original condition as approved herein, will require a coastal development permit or an amendment to this 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 permittees shall contact the Executive Director to determine whether a coastal development permit or an amendment to this permit is necessary, and, if necessary, shall subsequently apply for a coastal development permit or permit amendment for the necessary maintenance.**

6. As-Built Plans. **Within 60 days following completion of the project**, the permittees shall submit as-built plans of the approved seacave/notch maintenance that includes measurements of the distance between the residences and accessory improvements, and the bluff edge (as defined by Section 13577 of Title 14 of the California Code of Regulations) taken at 12 or more locations. The locations for these measurements shall be identified through permanent markers, benchmarks, survey position, written description, or other method to allow annual measurements to be taken at the same bluff location and to allow accurate measurement of bluff retreat.

In addition, **within 60 days following completion of the project**, the permittees shall submit certification by a registered civil engineer, acceptable to the Executive Director, verifying the seacave/notch repairs wall have been constructed in conformance with the approved plans for the project.

7. Best Management Practices. **PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicants shall submit for review and written approval of the Executive Director, a Best Management Practices Plan that effectively assures no shotcrete or other construction byproduct will be allowed onto the sandy beach and/or allowed to enter into coastal waters. The Plan shall apply to both concrete pouring/pumping activities as well as shotcrete/concrete application activities. During shotcrete/concrete application specifically, the Plan shall at a minimum provide for all shotcrete/concrete to be contained through the use of tarps or similar barriers that completely enclose the application area and that prevent shotcrete/concrete contact with beach sands and/or coastal waters. All shotcrete and other construction byproduct shall be properly collected and disposed of off-site.

The applicants shall undertake the development 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 legally required.

8. Other Permits. **Prior to commencement of construction**, the permittees shall provide to the Executive Director copies of all other required local, state or federal discretionary permits for the development authorized by CDP #6-05-91. The applicants shall inform the Executive Director of any changes to the project required by other local, state or federal agencies. Such changes shall not be incorporated into the project until the applicants obtain a Commission amendment to this permit, unless the Executive Director determines that no amendment is legally required.

9. 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 applicants with the State Lands Commission for the project to proceed without prejudice to the determination.

If the State Lands Commission is unable to provide a final determination in the timely manner despite due diligence from the applicants, the applicants may submit a completed application to the State Lands Commission for such a determination in compliance with this condition.

10. Public Rights. By acceptance of this permit, each applicant acknowledges, on behalf of him/herself and his/her successors in interest, that issuance of the permit and construction of the permitted development shall not constitute a waiver of any public rights which may exist on the property.

11. Assumption of Risk, Waiver of Liability and Indemnity Agreement. By acceptance of this permit, the applicants acknowledge and agree (i) that the site may be subject to hazards from erosion and coastal bluff collapse; (ii) to assume the risks to the applicants and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

12. Deed Restriction: PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicants shall submit to the Executive Director for review and approval documentation demonstrating that the applicants have executed and recorded against the parcel(s) governed by this permit a deed restriction(s), in a form and content acceptable to the Executive Director: (1) indicating that, pursuant to this permit, the California Coastal Commission has authorized development on the subject property, subject to terms and conditions that restrict the use and enjoyment of that property; and (2) imposing the Special Conditions of this permit as covenants, conditions and restrictions on the use and enjoyment of the Property. The deed restriction shall include a legal description of the entire parcel or parcels governed by this permit. The deed restriction shall also indicate that, in the event of an extinguishment or termination of the deed restriction for any reason, the terms and conditions of this permit shall continue to restrict the use and enjoyment of the subject property so long as either this permit or the development it authorizes, or any part, modification, or amendment thereof, remains in existence on or with respect to the subject property.

IV. Findings and Declarations.

The Commission finds and declares as follows:

1. Detailed Project Description/History. The proposed project is non-exempt maintenance of an existing 400-foot long notch infill located at the base of an 80-foot high coastal bluff on a public beach below seven single-family residence properties on Pacific Avenue in the City of Solana Beach. Maintenance would consist of the reapplication of sacrificial concrete to repair areas where erosional pockets have formed, and filling an existing seacave at the southern end of the notch fill that is approximately 4 feet above sand level and 20 feet deep with erodible concrete. The project would restore the notch fill to its approved, as-built condition.

The filled area would begin approximately 300 feet north of Fletcher Cove, the City of Solana Beach's primary beach access point. All of the bluffs and beach at the project site are in public ownership, with the exception of the bluff face below 231 Pacific Avenue, which is owned by the bluff-top property owner.

The subject maintenance project has been proposed in part to comply with a condition of approval for the permit granted for the original construction of the notch fill. In October 1999, the Commission approved filling the approximately 400-foot long stretch of seacaves/undercut area with a colored and textured erodible concrete mixture (CDP #6-99-103/SB Coastal Preservation Assoc.). The approved fill was a maximum of 11 feet high, 17 feet deep, with an average height of approximately 7 feet. Payment of a \$91,806 fee to SANDAG's Sand Mitigation Fee program was included.

In its approval of that project, the Commission required the following condition:

9. Future Maintenance/Debris Removal. The permittees shall remove all debris deposited on the beach or in the water as a result of construction of shoreline protective device. The permittees shall also remove all debris deposited on the beach or in the water as a result of failure or damage of the shoreline protective device in the future. In addition, the permittees shall maintain the permitted notch/seacave fill in its approved state except to the extent necessary to comply with the requirements set forth below. Maintenance of the notch/seacave fill shall include maintaining the color, texture and integrity. Any change in the design of the project or future additions/reinforcement of the notch/seacave fill beyond minor regrouting or other exempt maintenance as defined in Section 13252 of the California Code of Regulations to restore the notch/seacave fill 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 fill to ensure a continued match with the surrounding natural bluffs, the permittees shall contact the Commission office to determine whether permits are necessary, and shall subsequently apply for a coastal development permit for the required maintenance.** If at any time after

project completion, the notch/seacave fill is found to extend seaward of the face of the natural bluff by more than six (6) inches in any location, the permittees shall obtain and implement a coastal development permit to remove or other remedy this condition such that no seaward extension of the fill remains. [Emphasis in original]

In compliance with this condition and other conditions requiring regular monitoring of the notch fill, the applicants have submitted a monitoring report that identifies that erosion of both the erodible concrete and the cliff-forming Torrey Sandstone has occurred, and recommends filling the notch fill and seacave to its original as-permitted condition.

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

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...

As originally approved, the notch fill on the subject site was considered a preventative measure to preserve "the integrity and visual aesthetics of a 60-foot [high] section of sloping coastal bluff and to mitigate a significant and ongoing public hazard to the beach-going public." The geotechnical report submitted with the previous application did not assert that the seven existing bluff-top structures were in danger from erosion, but noted that there were significant overhangs at the base of the bluff that would eventually collapse, undermining the upper bluff and triggering progressive upper-bluff failures. The report also indicated that the overhangs within the lower sea cliff are "highly unstable at this time and subject to failure in the near future if exposed to any more cobble abrasion at the base of the sea cliff." The project was designed to reduce this instability.

Five years later, the approved notch fill appears to be functioning largely as intended. The upper bluffs have not collapsed, and the surface appearance of the infill is a fairly close match to the surrounding and adjacent bluffs. However, cobble abrasion has eroded portions of the infill, and a seacave has developed at the south end of the infill, where a portion of the infill eroded away. Proposed maintenance would consist of reapplying erodible concrete and filling the seacave with erodible concrete to return the infill to its original as-permitted condition. Filling in the area across the seawall would not increase the linear distance of the notch fill beyond that which was approved.

Like the original project, the maintenance is intended to be a minimal measure that will forestall the construction of more extensive, impactive and costly bluff stabilization such as seawalls. In Solana Beach, most of the recent approved seawall structures have been in the vicinity of 20 to 35 ft. in height, extending out approximately 2 ½ ft. onto the public beach (ref. 6-99-100/Colton, et. al; 6-00-36/Scism; 6-00-138/Kinzel, Greenberg; 6-02-02/Gregg, Santina; 6-02-84/Scism, 6-03-33/Surfsong; 6-05-30/Okun and 6-05-72/Las Brisas).

The bluffs along the Solana Beach shoreline have been subject to substantial erosion particularly over the past 20 years because of the loss of sand along the shoreline, the resulting wave action against the bluffs and the exposure of a layer of clean sands within the bluff. According to the Commission's staff geologist, the typical mechanism of sea cliff retreat along the Solana Beach shoreline involves the slow abrasion and undercutting of the Torrey Sandstone bedrock, which forms the sea cliff at the base of the bluffs, 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. When the lower sea cliff is undercut sufficiently, it commonly fails in blocks. The weaker terrace deposits are then unsupported, resulting in the collapse of the terrace deposits through circular failures. Such episodic failures eventually result in a reduction in the steepness of the upper bluff, and the landward retreat of the bluff edge. Such retreat may threaten structures at the top of the slope. When failures of the upper bluff have sufficiently reduced the overall gradient of the upper bluff, a period of relative stability ensues, which persists until the lower bluff becomes sufficiently undercut to initiate a block failure once more, triggering a repetition of the entire process.

However, recent block failures along the Solana Beach shoreline have also resulted in the exposure of a clean sands layer, which has changed the dynamics of bluff failures in Solana Beach. According to the Commission's staff geologist, the clean sand layer consists of a layer of sand with a limited amount of capillary tension and a very minor amount of cohesion, both of which cause the material to erode easily, making this clean sand layer, once exposed, susceptible to wind blown erosion and continued sloughing as the sand dries out and loses the capillary tension that initially held the materials together. Geotechnical reports associated with developments near this site have stated that gentle sea breezes and any other perturbations, such as landing birds or vibrations from 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 mechanism of bluff retreat that occurs in conjunction with the exposure of the clean sand layer is somewhat different than the paired, episodic failure model described above. Because of the cohesionless character of the clean sands, once they are exposed they continue to slump on an ongoing basis as a result of very small triggers such as traffic vibrations or wind erosion. Continued sloughage results in the further exposure of more clean sand, and ongoing upper bluff collapse. This cycle occurs so quickly (over months or days, rather than years) that the upper bluff may never achieve a stable angle of repose. In addition, the presence of this clean sand layer within the bluffs along the entire extent of the Solana Beach shoreline has previously been identified in geotechnical reports submitted in conjunction with seawall, seacave and notch infill projects in Solana Beach (ref. 6-99-100/Colton, et. al; 6-99-103/ Coastal Preservation Association; CDP 6-00-9/Del Mar Beach Club; 6-00-36/Scism; 6-00-138/Kinzel, Greenberg; 6-02-02/Gregg, Santana; 6-02-84/Scism and; 6-03-33/Surfsong).

Erosion and bluff collapse continue to be a threat in Solana Beach. Since the subject project was approved, there have been approximately 27 emergency permits granted for various types of shoreline protection on Solana Beach's bluffs. The proposed maintenance would maintain the existing level of protection, which the Commission has previously authorized, and is consistent with the maintenance required through special conditions. Although a detailed alternatives analysis has not been developed for the project, as with the initial project, the work is intended to avoid the need for far more extensive shoreline protection in the near future in the form of large seawalls and/or upper bluff structures.

The Commission's engineer has reviewed the project and agrees that the proposed work is appropriate and necessary for the site. However, Coastal Act policies require that the project must eliminate or mitigate adverse effects on shoreline sand supply and minimize adverse effects on public access, recreation, and the visual quality of the shoreline.

For the past decade, the Commission has relied upon the Beach Sand In-Lieu Mitigation Program established by the Commission to address impacts to local sand supply and some of the impacts from the loss of beach area resulting from seawalls and other shoreline protection. The Beach Sand In-Lieu Fee Mitigation Program was established to mitigate for some of the impacts on shoreline sand supply and has been administered by the San Diego Association of Governments (SANDAG) for many years. When placement of the fill was originally approved by the Commission in 1999, the applicants submitted a payment of \$91,806 to SANDAG's Sand Mitigation Fee program, using the formula developed by the Commission to address the loss of beach sand as a result of placement of the fill. The formula has a temporal component that takes into account the expected life of the shoreline protective device--in the case of the proposed project, 20 years. The Commission's engineer has reviewed the project and concurs that the proposed maintenance is consistent with, and included in, the previously calculated expected lifespan of the structure. Thus, the applicants have already provided mitigation,

through compliance with the conditions of the 1999 permit, for impacts to sand supply from the proposed project.

Recently, the Commission has begun to impose mitigation requirements to address the impacts on public access and recreation associated with new shoreline protective devices and the attendant loss of sand supply (#6-05-72/Las Brisas). However, the proposed project involves only repairs to an existing undercut area, repairs that are necessary to maintain the project in its approved configuration. It will not result in the covering of any new beach area not previously permitted to be covered, or accelerate the gradual elimination of the existing beach. The Commission previously approved the project and required that it be maintained in good condition as proposed. Failure to maintain the undercut area would mostly likely result in substantial bluff failures over the next several years, resulting in the need to construct a seawall with substantially greater recreational, visual and sand supply impacts than the proposed fill. If substantial modifications were proposed that would extend the previously anticipated lifespan of the fill or expansion of the fill area itself were proposed, the Commission would reevaluate the need for additional mitigation at that time. In addition, once the notch fill has reached the end of the anticipated 20-year lifespan, any further requests for maintenance of the site would be subject to additional mitigation requirements at that time.

If the notch fill proposed for repair were damaged in the future (e.g. as a result of wave action, storms, etc.) it could threaten the stability of the site and adjacent properties, which could lead to the need for more bluff alteration. In addition, damage to the notch fill could adversely affect the beach by resulting in debris on the beach and/or creating a hazard to the public using the beach. Excessive wear of the fill could result in the loss of or change to the color or texture of the fill resulting in adverse visual impacts (discussed in more detail in a subsequent section of this report). Therefore, in order to find the proposed shore and bluff protection consistent with the Coastal Act, the Commission finds that the condition of the structures must continue to be maintained in their approved state for the life of the structures. Further, in order to ensure that the permittees and the Commission know when repairs or maintenance are required, the permittees must continue to monitor the condition of the proposed structures annually, for three years and then at three-year intervals after that, unless a major storm event occurs. The monitoring will ensure that the permittees and the Commission are aware of any damage to or weathering of the shoreline structures and can determine whether repairs or other actions are necessary to maintain the structures in their approved state before damage occurs resulting in the need for potentially more substantial structures.

Therefore, Special Condition #2 notes that the applicants are still required to comply with the previous permit requirements on CDP #6-99-103 for monitoring reports that evaluate the condition and performance of the repaired notch fill and overall site stability. That permit requires the applicants to submit annual reports with recommendations, if any, for necessary maintenance, repair, changes or modifications to the project. In addition, the permit requires the applicants to perform the necessary repairs through the coastal development permit process in the future.

Special Condition #1 requires the applicants to submit final plans for the project indicating that the seacave/notch repairs conform to the bluff contours. The plans must also demonstrate that any existing irrigation systems on the blufftop have been removed. Irrigation on or adjacent to the coastal bluffs can lead to saturation of the ground, particularly when leaks or breakages occur, destabilizing the bluffs and impacting the ability of the notch fill to adequately stabilize the site. Submission of final plans will ensure that overall site conditions which could adversely impact the stability of the bluff have been addressed.

Special Condition #4 requires that feasible alternative measures must be explored and either implemented or shown to be infeasible 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 shoreline protection, such as upper bluff stabilization, will require an alternative analysis. If there are feasible alternatives to shoreline or bluff protection that would have less impact on visual quality, sand supply, or public access, the Commission (or, where applicable, the City of Solana Beach after the effective certification of its Local Coastal Program) can 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 (such as decks, patios, etc.). Through this condition, the property owner is required to acknowledge the risks inherent in the subject property and acknowledge 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 Condition #6 notifies the applicants of the responsibility to maintain the repaired notch fill in its approved state. The condition also indicates that, should it be determined that additional maintenance of the repaired structures is required in the future, including maintenance of the color and texture, the applicants shall again contact the Commission to determine if permits are required.

To assure the proposed repairs have been constructed properly, Special Condition #7 has been imposed. This condition requires that, within 60 days of completion of the project, certification by a registered civil engineer be submitted that verifies the proposed shoreline devices have been constructed in accordance with the approved plans

Special Condition #8 requires the applicants to submit copies of all other required local, state or federal discretionary permits involving the subject development to ensure that no additional requirements are placed on the applicants that could conflict with this permit and require an amendment in order to resolve the conflict.

Due to the inherent risk of shoreline development, Special Condition #11 requires the applicants to waive liability and indemnify the Commission against damages that might result from the proposed repairs and new upper bluff wall. The risks of the proposed

development include that the repaired shoreline devices will not protect against damage to the structures at the top of the bluff from bluff failure and erosion. In addition, the proposed structures themselves may cause damage either to the applicants' property or to neighboring properties by increasing erosion of the bluffs. Such damage may also result from wave action that damages the repaired seacave/notch infill. 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. Special Condition #12 requires the applicants to record the permit conditions in order to cause the title to the property to reflect the obligations of the subject permit conditions.

In summary, the project is maintenance that is consistent with and required by the original notch fill approval. Mitigation for the fill, including anticipated repairs such as these, has previously been proposed and accepted for the site, and the project is expected to stave off the need for more substantial shoreline protective devices. The Commission's staff coastal engineer has reviewed the applicants' geotechnical assessment and concurs with its conclusions. As conditioned, there are no other less damaging alternatives available to address the needed repairs. Therefore, as conditioned, the Commission finds that the proposed notch fill maintenance 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.

In addition, Section 30251 of the Coastal Act 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 . . .

The proposed development will occur on the face of a coastal bluff and on the public beach. There is an existing notch fill on the site which has been successfully colored and textured to match the bluff face, and as such, is not a prominent visual feature of the area. In order to avoid adverse impacts to the visual resources of the shoreline, it is important that the proposed refacing be similarly textured and colored to match the surrounding natural bluffs. Therefore, Special Condition #1 requires the submittal of detailed plans, color samples, and information on the proposed construction methods and technology for the surface treatment of repairs.

In addition, to address other potential adverse visual impacts, Special Conditions #2 and #5 have been attached which require the applicants to monitor and maintain the proposed seacave/notch infill in their approved state. In this way, the Commission can be assured that the proposed fill element will be maintained so as to effectively mitigate its visual prominence.

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 visual quality of the coastal area or the adjacent park and recreation area (beach area). Thus, the project can be found consistent with Sections 30240 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 300 feet north of Fletcher Cove, the main public and vehicle beach access ramp in the City of Solana Beach. The proposed seacave/notch repairs will occur on structures located on sandy beach area. The project could have several adverse impacts on public access.

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 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 where access is sometimes only available at low tides.

The proposed maintenance would restore the notch fill to its approved configuration; thus, no new encroachment on public beach would occur. As designed, the fill will not extend beyond the face of the bluff onto sandy beach currently usable by the public. As discussed above, the applicants have previously submitted a mitigation fee for impacts to shoreline sand supply, which will also serve to mitigate the impact of the loss of beach access caused by the notch fill. The proposed maintenance was anticipated and required by the previous approval. This type of project is expected to reoccur periodically throughout the life of the notch fill to ensure the fill continues to operate effectively. In the absence of normal repairs such as the proposed project, the various parts of the fill would likely start protruding unevenly and unattractively, and eventually, bluff collapse would occur. In restoring the notch fill to its previous configuration, the proposed project will not have any new impacts on public access and recreation not anticipated in the original approval.

As designed, the fill will not extend beyond the face of the bluff onto sandy beach currently usable by the public. However, as the Commission has seen in other approved "erodible" fills, the fill material does not always perform as designed such that without maintenance some seacave/notch fills may eventually lie on the public beach (Ref. CPD No. 6-02-85/City of Solana Beach) and inhibit public access. Therefore, Special Condition #2 requires that applicants continue to monitor the site over the lifetime of the project to assure that the fill material does not extend beyond the face of the bluff more than 6 inches. In addition, per the original permit approval for the notch fill, the applicants must again apply for another Coastal Development Permit or Permit Amendment in a timely manner to remove those portions of the fill material that extends out from the face of the bluff onto the public beach. As conditioned, public access can be protected to the maximum extent feasible.

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 #10 acknowledges that the issuance of this permit does not waive the public rights that exist on the property. The fill may be located on State Lands property, and as such, Special Condition #9 requires the applicants to obtain any necessary permits or permission from the State Lands Commission to perform the work.

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 applicants have not submitted a 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 300 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 that 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. 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 that 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 #3 prohibits the applicants from storing vehicles on the beach overnight, using any public parking spaces within Fletcher Cove overnight 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.

With Special Conditions assuring maximum public access, addressing sand supply and authorization from the State Lands Commission, impacts to the public will be minimized to the greatest extent feasible and will not have a significant impact on public access, consistent with the policies listed above. Thus, as conditioned, the Commission finds the project consistent with the public access and recreation policies of the Coastal Act.

6. Protection of Ocean Waters/BMP's. Section 30230, 30231 and 30232 of the Coastal Act requires that new development be designed so that ocean waters and the marine environment be protected from polluted runoff and accidental spill of hazardous substances:

Section 30230

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

Section 30231

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

Section 30232

Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.

The construction of the proposed notch fill maintenance will occur on the public beach within a few feet of ocean waters. Construction activities will only occur at low tides when access along the beach is available. However, at high tides ocean waters will extend up to face of the notch fill such that the fill at times will be subject to wave action. The method of maintenance involves the multiple application of shotcrete that is sprayed over the face of the existing fill. This shotcrete material will eventually be sculpted and colored to closely match the appearance of the natural bluffs. Based on similar projects approved by the Commission, approximately 10 to 15% of this shotcrete (concrete) material can rebound off the structure onto the beach as it is being applied. Because the material is wet, it cannot be picked up until it hardens. The Commission has recently become aware that in previously constructed shoreline protection projects along the Solana Beach shoreline, this shotcrete "rebound" has not been removed before the ocean waters rise and mix with the wet shotcrete material. After the return of low tides, any remaining hardened shotcrete is then picked up by the construction crews and removed from the beach. According to the Commission's water quality division and staff of the State Regional Water Quality Control Board, San Diego Region, the mixing of this rebound shotcrete with ocean waters is a violation of the State Water Quality Act since it would involve the unauthorized discharge of a pollutant into ocean waters.

Along other sections of the coast, shotcrete has been applied without the associated rebound problems. Contractors place tarps on the beach to collect material that drops from the wall. They also use backdrops or drapes along the face of the bluff to contain splatter and rebound and prevent scatter of shotcrete material all around the beach. These and other techniques are possible ways to control shotcrete debris and prevent discharge into the marine environment.

Special Condition #3 requires that during the construction of the project, "the permittees shall not store any construction materials or waste where it will be or could potentially be subject to wave erosion and dispersion". This is a common condition on all shoreline protective device projects approved by the Commission. However, based on information submitted for similar projects, this special condition has not effectively served to prohibit the contamination of ocean waters by rebounded shotcrete. Therefore, to assure that the subject development will not result in the pollution of the ocean waters, Special Condition #7 has been attached. Special Condition #7 requires the applicants to submit a Polluted Runoff Control Plan that incorporates Best Management Practices (BMPs), for Executive Director approval, for the construction of the proposed notch fill. Construction methods must be devised to assure this rebound shotcrete material does not mix with or pollute ocean waters. With appropriate BMPs, the potential for this polluted material from the site making its way into the ocean will be eliminated. In addition, Special Condition #3 prohibits the storage of construction vehicles in the surf zone, or the washing of equipment on the beach or parking lot. Therefore, as conditioned, the Commission finds the proposed development consistent with the marine and water quality protection policies of the Coastal Act.

7. 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 jurisdiction, but is now within the boundaries of the City of Solana Beach. The City is preparing and plans to submit a new LCP for the area to the Commission for review. Because of the incorporation of the City, the County of San Diego's LCP was never effectively certified. 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.

The City of Solana Beach has 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 region-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, the work involves repair to structures already authorized by the Commission. 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, and beach replenishment. Although the erosion potential on the subject site is such that action must be taken promptly and repairs to the existing structures are necessary to assure they remain in their previously approved state, 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 location of the proposed seacave/notch infill repair 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 development is consistent with the Chapter 3 policies of the Coastal Act in that the need for the maintenance of the existing shoreline protective devices 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, is consistent with the Chapter 3 policies of the Coastal Act, and will not prejudice the ability of the City of Solana Beach to complete a certifiable local coastal program.

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

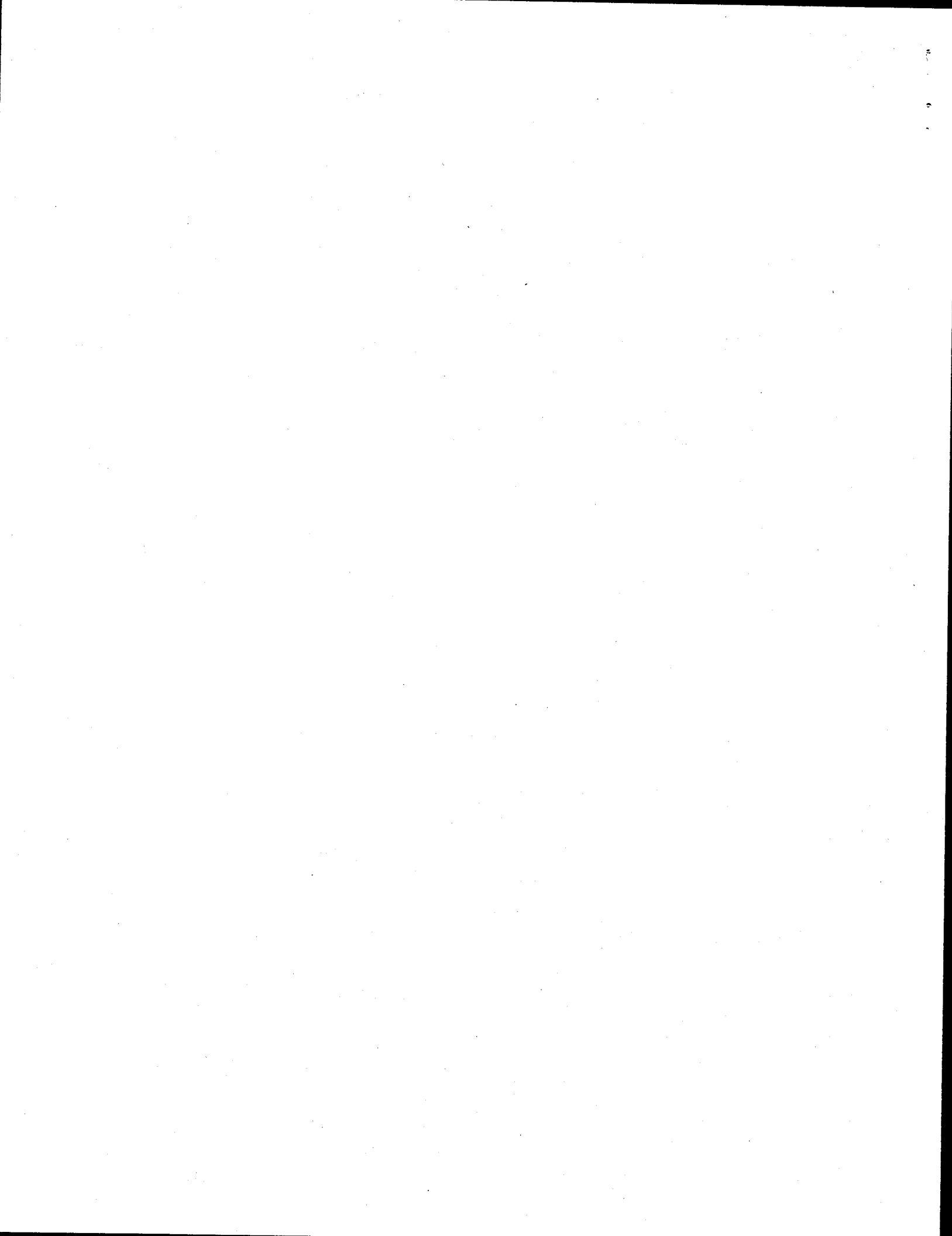
Section 13096 of the Commission's Code of Regulations requires Commission approval of Coastal Development Permits to be supported by a finding showing the permit, as conditioned, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) 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, water quality, and public access policies of the Coastal Act. Mitigation measures, including conditions addressing construction techniques

consistent with the geotechnical report, the color of construction materials and timing of construction will minimize all adverse environmental impacts. As conditioned, there are no feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impact which the activity may have on the environment. Therefore, the Commission finds that the proposed project is the least environmentally-damaging feasible alternative and is consistent with the requirements of the Coastal Act to conform to CEQA.

STANDARD CONDITIONS:

1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittees 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 permittees to bind all future owners and possessors of the subject property to the terms and conditions.



Subject Site

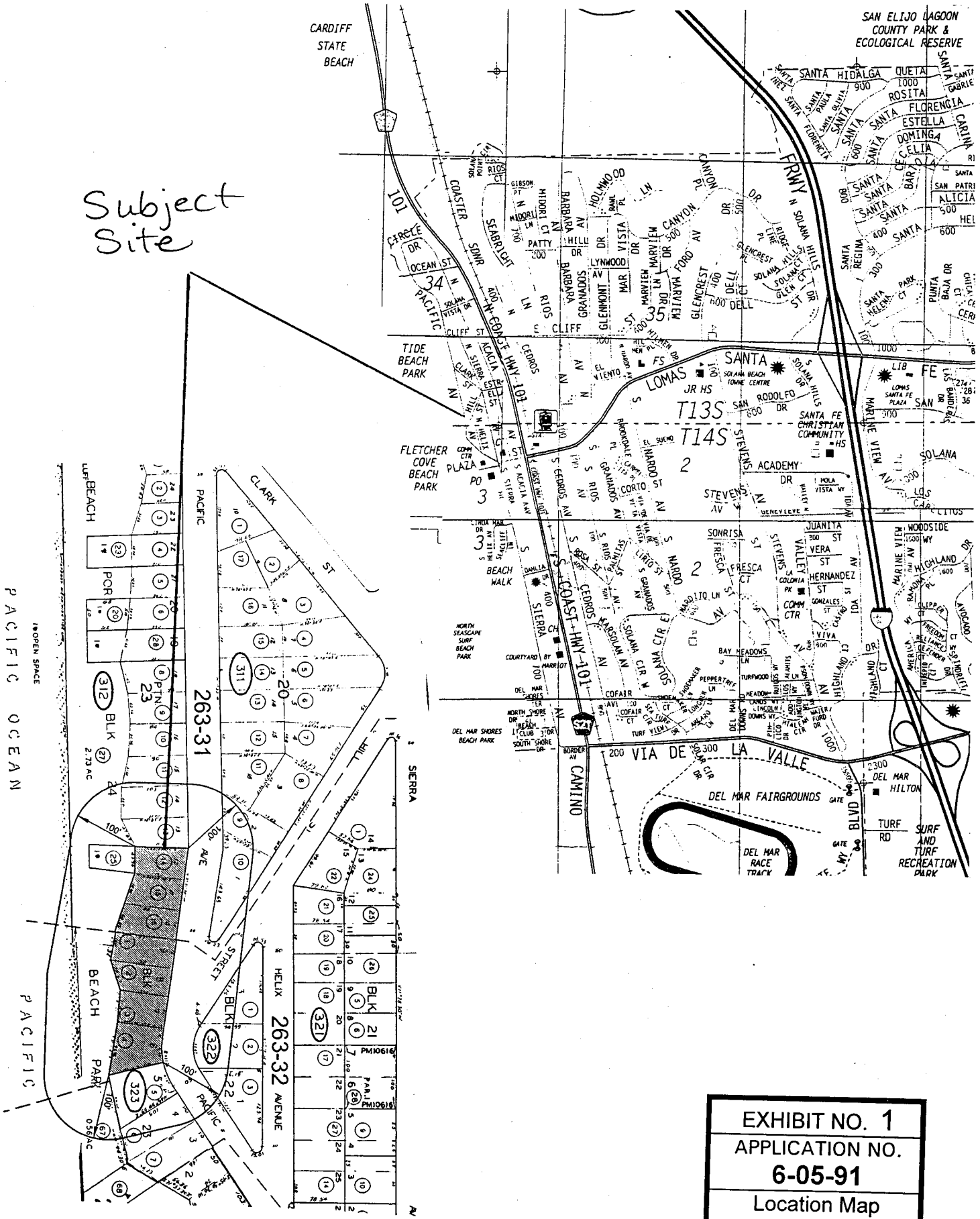
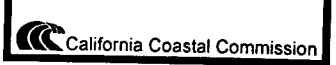
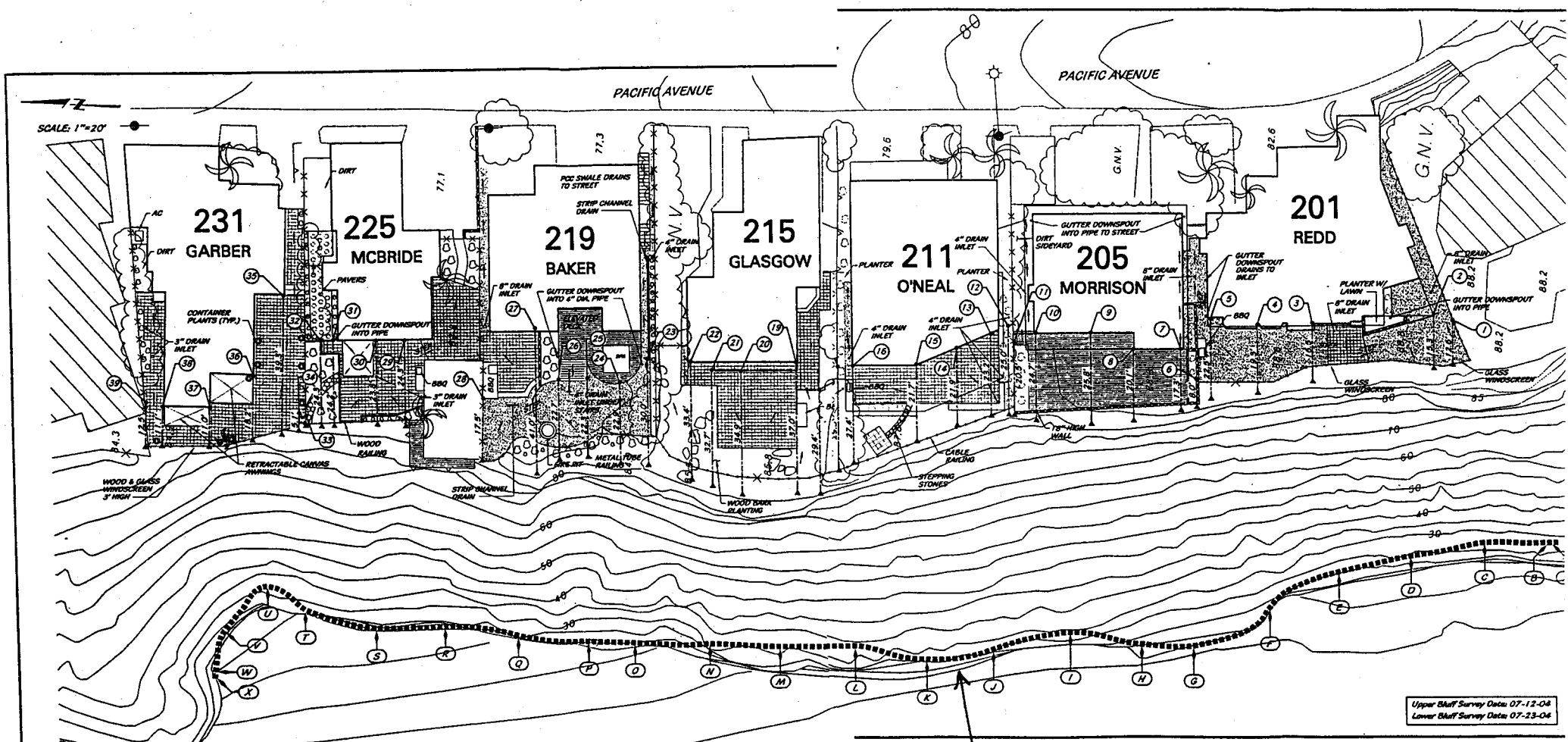


EXHIBIT NO. 1
APPLICATION NO.
6-05-91
Location Map





SCALE: 1"=20'

PACIFIC AVENUE

PACIFIC AVENUE

231
GARBER

225
MCBRIDE

219
BAKER

215
GLASGOW


211
O'NEAL

205
MORRISON

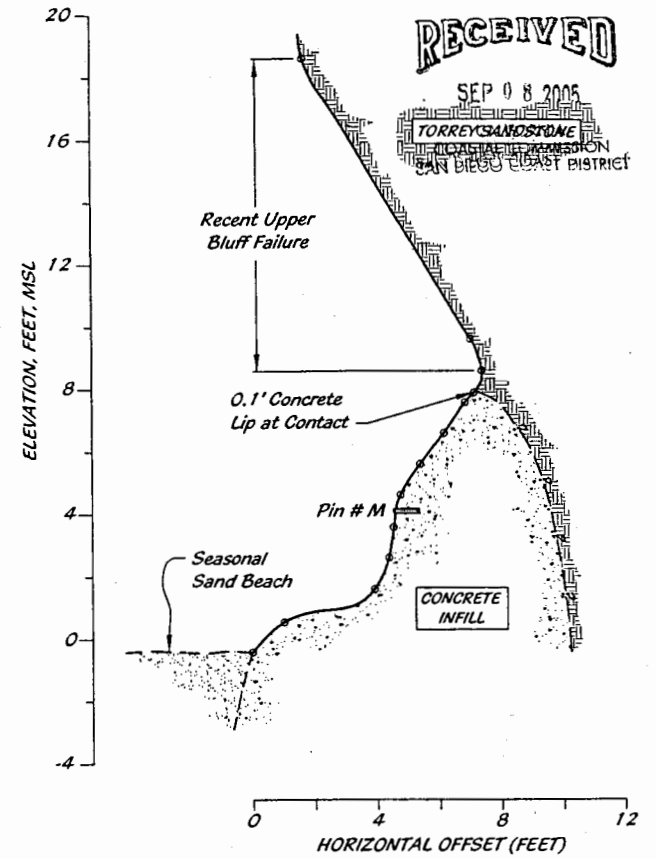
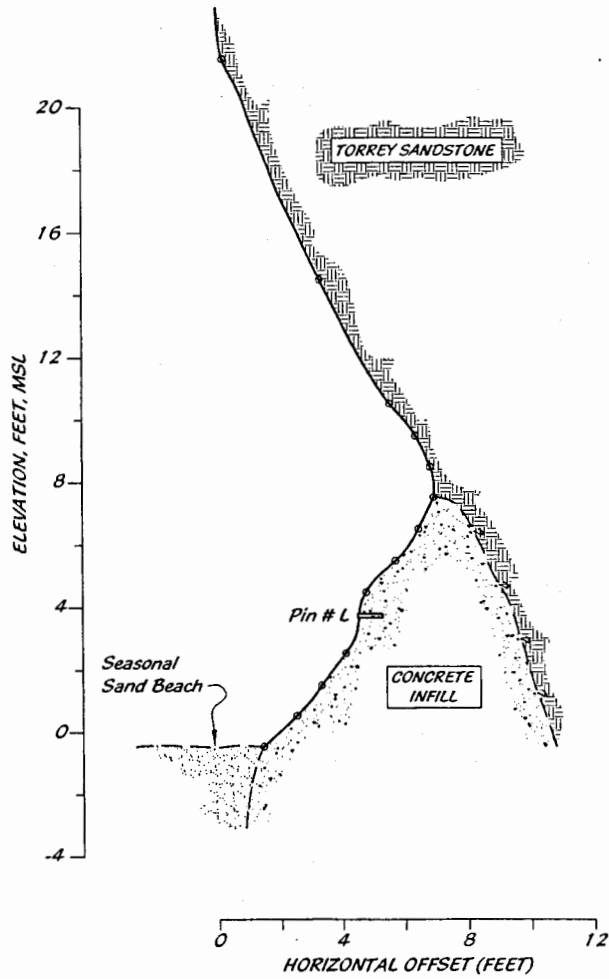
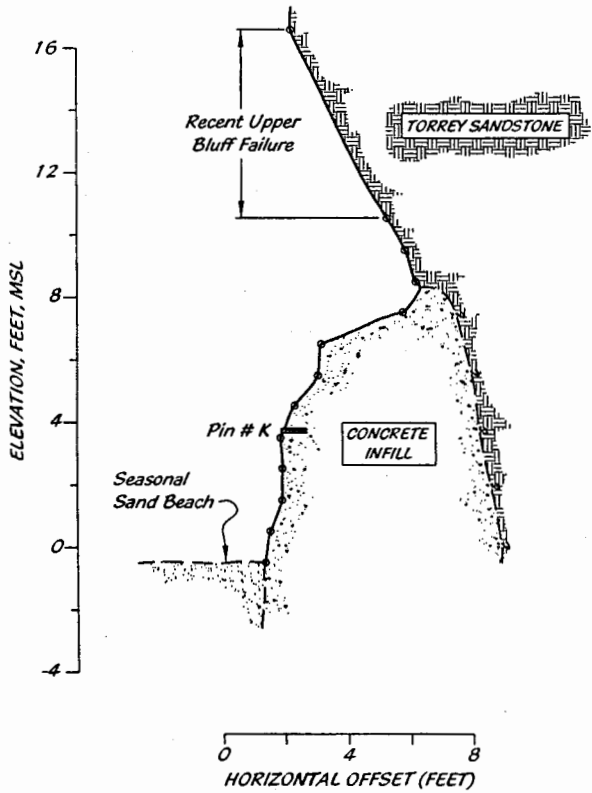
201
REDD

Upper Bluff Survey Date: 07-12-04
Lower Bluff Survey Date: 07-23-04

Upper Bluff Survey Date: 07-12-04
Lower Bluff Survey Date: 07-23-04


 EXHIBIT NO. 2
 APPLICATION NO.
 6-05-91
 Site Plan

Existing
Notch Fill



VERTICAL PROFILE AT PIN # M
SCALE: 1"=4'

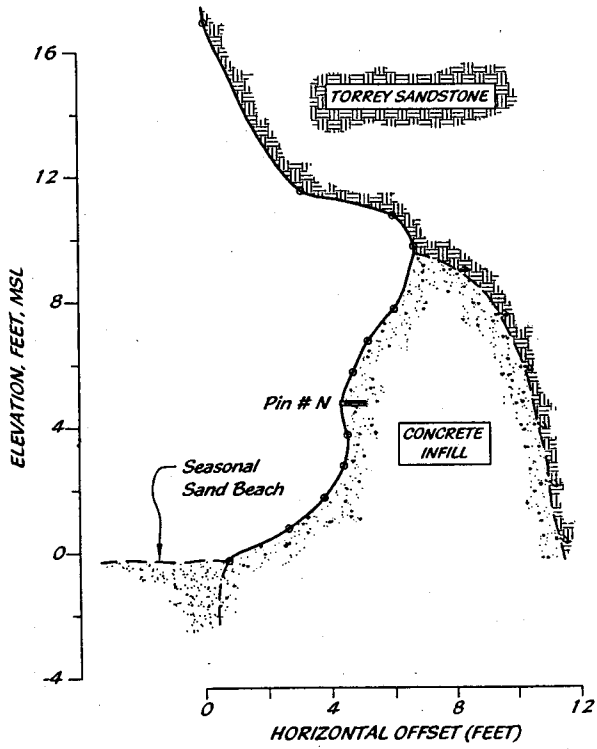
Lower Bluff Survey Date: 07-23-04

California Coastal Commission
Page 1 of 2
Typical Bluff Profiles
APPLICATION NO.
6-05-91
EXHIBIT NO. 3

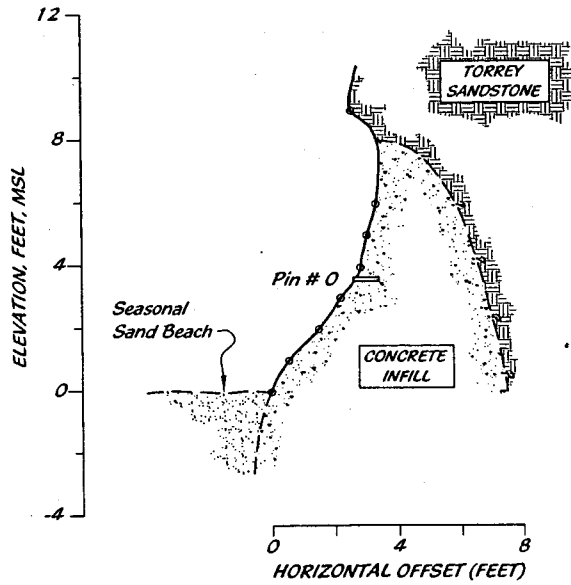
PROFILE AT PIN # K

VERTICAL PROFILE AT PIN # L
SCALE: 1"=4'

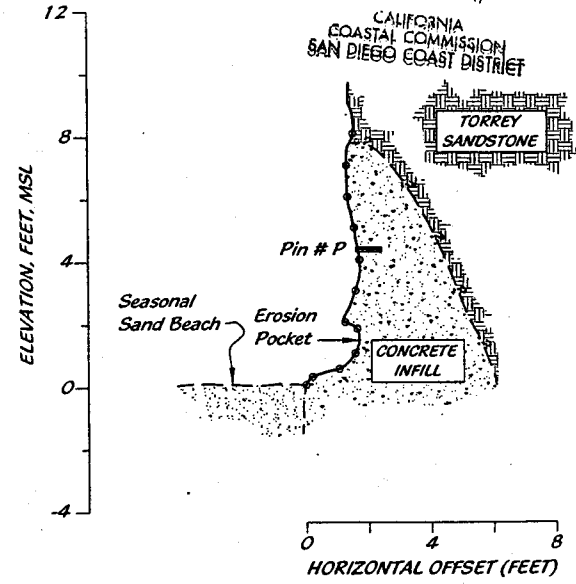
	TERRACOSTA CONSULTING GROUP ENGINEERS AND GEOSCIENTISTS 4188 HURPHY CANYON ROAD, SUITE 100 SAN DIEGO, CA 92121 (619) 873-8900	FIGURE NUMBER 6
	PROJECT NAME 201-231 PACIFIC AVENUE	PROJECT NUMBER 1831-2
VERTICAL PROFILES		



VERTICAL PROFILE AT PIN # N
SCALE: 1"=4'



VERTICAL PROFILE AT PIN # O
SCALE: 1"=4'



VERTICAL PROFILE AT PIN # P
SCALE: 1"=4'

RECEIVED

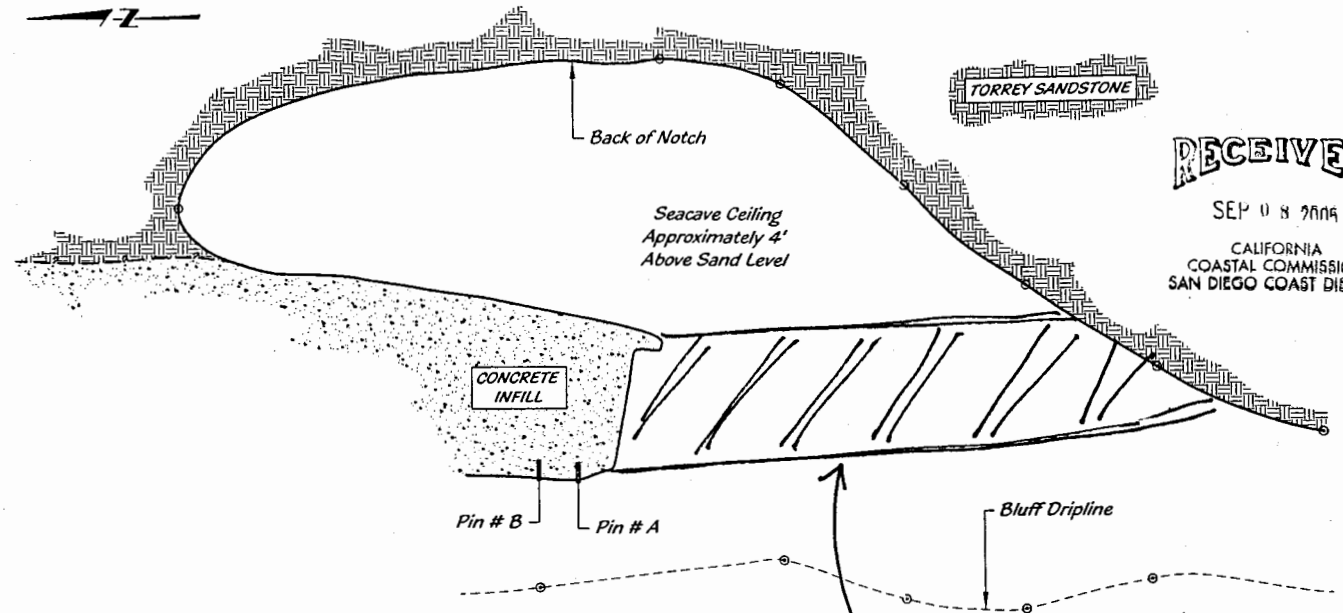
SEP 01 11 30 AM '05

CALIFORNIA
COASTAL COMMISSION
SAN DIEGO COAST DISTRICT

Prof 2

Lower Bluff Survey Date: 07-23-04

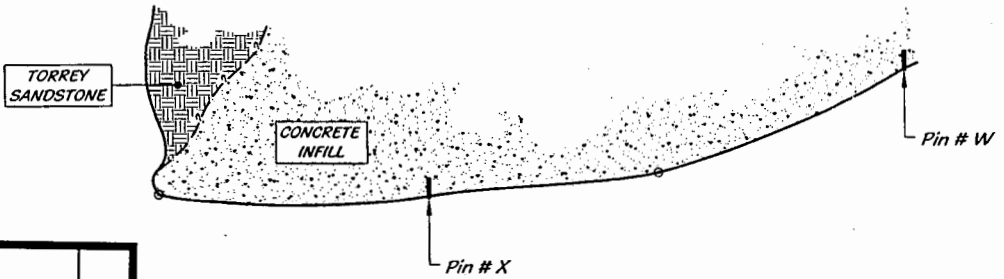
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	PROJECT NAME 201-231 PACIFIC AVENUE	PROJECT NUMBER 1831-2
VERTICAL PROFILES		



SOUTH END HORIZONTAL PROFILE
SCALE: 1"=5'

Location of approved fill now eroded

RECEIVED
SEP 08 2004
CALIFORNIA
COASTAL COMMISSION
SAN DIEGO COAST DISTRICT



NORTH END HORIZONTAL PROFILE
SCALE: 1"=5'

Lower Bluff Survey Date: 07-23-04

California Coastal Commission

EXHIBIT NO. 4
APPLICATION NO.
6-05-91
Seacave Profile

TerraCosta
Consulting Group

TERRACOSTA CONSULTING GROUP ENGINEERS AND GEOLOGISTS 4428 SAMPNEY CANYON ROAD, SUITE 100 SAN DIEGO, CA 92123 (619) 873-8900	FIGURE NUMBER 10
PROJECT NAME 201-231 PACIFIC AVENUE	PROJECT NUMBER 1831-2

HORIZONTAL PROFILES

