CALIFORNIA COASTAL COMMISSION
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STAFF REPORT: REGULAR CALENDAR

Application No.:	**6-13-0948**
Applicant:	**William S. Bannasch Living Trust, Attn: Michael Morris**
Agent:	Walter Crampton
Location:	523-525 Pacific Avenue, Solana Beach, San Diego County (APN: 263-041-22 & 263-041-24)
Project Description:	Repair and expansion of 5 existing seacave/notch infills using erodible concrete. Proposed infill expansions will have a cumulative length of approximately 92 feet and depths ranging from 3 to 19 feet and one existing infill that has migrated onto the public beach will be removed. The expanded infills will be keyed into formational bedrock and will extend vertically up to the dripline of the Torrey Sand stone. A sculpted and colored erodible concrete face may be applied to existing infills. Removal of permanent irrigation on the bluff top lot and installation of artificial turf.
Staff Recommendation:	Approval with Conditions

SUMMARY OF STAFF RECOMMENDATION

The proposed project is located on a public beach fronting an existing single family residence and a vacant bluff top lot in the City of Solana Beach. The site currently contains five existing seacave infills on the public beach at the toe of the bluff, which were constructed pursuant to two separate CDPs (Ref: CDP Nos. 6-87-391 and 6-91-081). This CDP application seeks to obtain a CDP for the maintenance and expansion of the 5 existing seacave infills using only erodible concrete and to remove an existing seacave infill that has become dislodged and is lying on the public beach (Infill "B").

Staff is recommending approval of the proposed project, with special conditions. The primary issues raised by the proposed development include potential adverse impacts to public beach access and potential adverse visual impacts to coastal bluffs.

Staff, including the Commission's coastal engineer and geologist, have evaluated the relevant project materials, have visited the site, and have determined that the proposed seacave infills represent the minimum amount of armoring necessary to maintain the existing seacaves and to address the expansion of the seacaves and notches at the subject site. The applicant is not proposing to infill any new seacaves or notches that are not directly connected to existing seacaves that were approved to be filled previously by the Commission.

The City's recently certified Land Use Plan (LUP) allows for pre-emptive construction of erodible concrete seacave/notch infills even when a bluff top structure is not imminently threatened. In the case of the subject property, the property owner has waived any rights to construction of a seawall or a mid or upper bluff wall to protect the subject bluff top structure. However, the prior approval of the bluff top structure allows for maintenance of the existing seacave infills fronting the subject site. Special Condition 2 requires that the applicant submit a comprehensive monitoring program to ensure that the proposed seacave/notch infill is functioning as designed and is not adversely impacting coastal resources. Special Condition 3 requires that if the monitoring finds that any portion of the existing or proposed seacave/notch infills encroaches greater than 6 inches seaward of the adjacent natural bluffs, that the property owner obtain a CDP amendment from the Commission to remove and/or remedy the situation.

Currently, one of the existing infills (Infill "C") extends beyond the bluff on the beach and adversely impacts public access. In order to prevent such an issue, CDP #6-87-391 approved a seacave infill design that incorporated joints into the concrete, which would break off onto the beach as the adjacent bluff naturally eroded landward. Removal of the portion of the existing infill "C" is necessary because it does not appear that the applicant constructed the existing seacave infills consistent with the seacave infill design previously approved by the Commission. Special conditions of CDP #6-87-391 and CDP #6-91-081 also required that portions of the existing seacave infills that fail and adversely impact public beach access be removed by the applicant. In addition, the proposed application results in an expansion to the existing seacave infills, which currently result in adverse impacts to public beach access. In order to address this issue, Special Condition 1 requires that the applicant submit revised plans showing removal of the portion of Infill

"C" that is encroaching on the public beach and to reduce the footprint of the proposed infill expansion adjacent to the southern side of infill "C", such that no new infill material is placed seaward of the 'dripline' of the adjacent natural bluff. The Commission's senior engineer and geologist have found that it will not destabilize the coastal bluff to remove the portion of the existing infill "C" that is encroaching on the public beach and that removal can be done safely.

The City's LUP requires that impacts to coastal resources be assessed and mitigated and shoreline protection structures are subject to a 20 year approval authorization and an encroachment removal agreement. However, on January 9, 2014 the Commission approved suggested modifications to the certified LUP to remove the requirement to impose a Sand Mitigation Fee for erodible concrete seacave/notch infills. In addition, the Commission approved suggested modifications to the certified LUP to remove the requirements to authorize the permit for a defined 20 year period and be subject to an encroachment removal agreement. The proposed erodible concrete seacave/notch infills are designed to erode landward at a rate comparable to the adjacent bluffs and will therefore not adversely impact coastal resources and will naturally deteriorate, thus making a permit authorization period or encroachment removal agreement unnecessary.

The proposed seacave infill maintenance project is within the Commission's coastal development permit jurisdiction. The Commission recently certified the City's Land Use Plan (LUP); however, the City of Solana Beach does not yet have a certified LCP. In addition, the Commission recently approved a LUP amendment which contained clarifications related to seacave/notch infills. Therefore, the Chapter 3 policies of the Coastal Act are the standard of review, with the City's certified LUP and the recent Commission action on the LUP amendment used as guidance.

Commission staff recommends **approval** of coastal development permit application 6-13-0948 as conditioned.

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APPENDIX

EXHIBITS

I. MOTION AND RESOLUTION

Motion:

*I move that the Commission **approve** Coastal Development Permit Application No. 6-13-0948 subject to the conditions set forth in the staff recommendation.*

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

Resolution:

The Commission hereby approves coastal development permit 6-13-0948 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

This permit is granted subject to the following 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 of interpretation of any condition will be resolved by the Executive Director or the Commission.

4. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

5. **Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

III. SPECIAL CONDITIONS

This permit is granted subject to the following special conditions:

1. **Revised Final Plans.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director for review and written approval, final seacave/notch infill plans that are in substantial conformance with the plans submitted with this application received January 31, 2014 by TerraCosta Consulting Group and the plans dated January 10, 2014 by David Reed Landscape Architects. 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 texturing and coloring the infill. Such plans shall confirm, and be of sufficient detail to verify, that the infill color and texture closely matches the adjacent natural bluffs, including provision of a color board indicating the color of the infill material.

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

   c. The seacave and notch infills shall conform as closely as possible to the natural contours of the bluff, and shall not protrude beyond the existing "drip-line" (a parallel line extending down the face of the bluff above the seacave/notch and overhangs).

   d. The erodible concrete for the seacave/notch infills shall be consistent with the submitted plans and shall be designed to provide a material with erosion characteristics similar to that of the adjacent natural bluff.

   e. The existing approximately 24 sq. ft. seacave infill located on the beach labeled "B" shall be removed (Exhibit 3) and the existing seacave infill labeled "C" shall be cut back such that no portion of the infill remains seaward of a 'stringline' between the adjacent natural bluff on either end of the infill. Furthermore, no new seacave/notch infill material shall be installed seaward of a stringline between the adjacent natural bluff depicted by the dashed red line in Exhibit 4.

The permittee 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.

2. **Monitoring Program.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director for review and written approval, a plan prepared by a licensed geologist or geotechnical engineer for a seacave/notch infill monitoring program which includes the following:

   a. Current measurements of the distance between the residence and the bluff edge (as defined by Section 13577 of the California Code of Regulations), and provisions for these measures to be taken annually after completion of construction for the life of the project. The locations for these measurements shall be identified through permanent markers, benchmarks, survey position, written description, etc. so that annual measurements can be taken at the same bluff location and comparisons between years can provide information on bluff retreat.

   b. Provisions for establishing any differential retreat between the natural bluff face and each of the seacaves/notches by measuring both ends of the seacaves/notches and at 20-foot intervals (maximum) along the top of the seacave/notch face, and the bluff face intersection annually after completion of construction for the life of the project. Measurements may be taken through aerial photography. The program shall describe the method by which such measurements shall be taken.

   c. Provisions for the annual measurement of the erodibility of the proposed erodible concrete infill. The program shall describe the method by which such measurements shall be taken.

   d. Provisions for submittal of a report to the Executive Director of the Coastal Commission on June 1st every two years for a six year period beginning after completion of construction. Each report shall be prepared by a licensed geologist or geotechnical engineer. The report shall contain the measurements and evaluation required in sections a, b, and c above. The report shall also summarize all measurements and provide analysis of trends, annual retreat or rate of retreat, and the stability of the overall bluff face, including the upper bluff area, and the impact of the seacave/notch infills on the natural bluff, and shall include suggestions that do not involve the construction of structures on the face of the bluff for correcting any problems. In addition, each report shall contain recommendations, if any, for necessary maintenance, repair, changes or modifications to the project. If any portion of the existing or proposed seacave/notch infills is found to extend seaward of the ‘drip line’ of the natural bluff by more than six (6) inches in any location, the report shall include alternatives and recommendations to remove or otherwise remedy this condition such that no seaward extension of the infill will remain.

e. Provisions for submission of a report containing the information identified in section D above at 3 year intervals following the last biannual report, for the life of the project. However, reports shall be submitted in the spring of any year in which the following event occurs:

1. A 20-year storm event

2. An "El Niño" storm event

3. A major tectonic event magnitude 5.5 or greater affecting San Diego County

Thus, reports may be submitted more frequently depending on the occurrence of the above events in any given year.

f. An agreement that the permittee shall apply for a coastal development permit amendment within three months of submission of the report required in subsection D and E above 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 monitoring program. Any proposed changes to the approved monitoring program shall be reported to the Executive Director. No changes to the monitoring program shall occur without a Coastal Commission approved amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

3. **Future Maintenance/Debris Removal.** The permittee shall remove all debris deposited on the beach or in the water as a result of construction of the seacave/notch infill. The permittee 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 permittee shall maintain the permitted seacave/notch infill in its approved state except to the extent necessary to comply with the requirements set forth below. Maintenance of the seacave/notch infill shall include maintaining its color, texture and integrity. Any change in the design of the project or future additions/reinforcement of the seacave/notch infill beyond minor re-grouting or other exempt maintenance as defined in Section 13252 of the California Code of Regulations, will require a coastal development permit. However, in all cases, if, after inspection, it is apparent that repair and maintenance is necessary, the permittee shall contact the Commission's San Diego 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, any portion of the existing or proposed seacave/notch infills is found to extend seaward of the face of the natural bluff by more than six (6) inches in any location, the permittee shall obtain and implement a coastal development permit to remove and/or remedy this

condition such that no portion of the infill remains seaward of a 'stringline' between the adjacent natural bluff on either end of the infill.

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 at the Fletcher Cove Parking Lot, and the use of other public parking spaces shall be minimized. 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 seacave/notch infills. 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 legally required.

5. **Assumption of Risk.** By acceptance of this permit, the applicant acknowledges and agrees (a) that the site may be subject to extraordinary hazards from bluff collapse and erosion; (b) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (c) 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 (d) 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.

6. **Deed Restriction**. PRIOR TO ISSUANCE OF THIS COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director for review and approval documentation demonstrating that the applicant has executed and recorded against the parcel(s) governed by this permit a deed restriction, 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.

7. **State Lands Commission Review.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall obtain 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.

8. **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.

9. **As-Built Plans.** Within 60 days following completion of the project, the permittee shall submit as-built plans of the approved seacave/notch infill. 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 seacave/notch infill has been constructed in conformance with the approved plans for the project.

10. **Removal of Permanent Irrigation.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director for review and written approval, a landscape irrigation removal plan for the subject properties at 523 and 525 Pacific Avenue. The plan shall detail the location of all

existing permanent irrigation and fully describe the method of removal or capping such that no permanent irrigation features remain in service within 100 feet of the bluff edge. WITHIN 30 DAYS FOLLOWING ISSUANCE OF THE PERMIT, the applicant shall remove or cap all permanent irrigation features from each of the upper blufftop lots, consistent with the approved plans.

The permittee 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.

11. **Condition Compliance**. WITHIN 90 DAYS OF COMMISSION ACTION ON THIS COASTAL DEVELOPMENT PERMIT, or within such additional time as the Executive Director may grant for good cause, the applicant shall satisfy all requirements specified in the conditions of the subject permit that the applicant is required to satisfy prior to issuance of this permit. WITHIN 60 DAYS OF ISSUANCE OF THIS COASTAL DEVELOPMENT PERMIT, the applicant shall have completed removal of existing infill "B" and the portion of existing infill "C" that is located seaward of the natural bluff in conformance with the approved Final Plans. Failure to comply with this requirement may result in the institution of enforcement action under the provisions of Chapter 9 of the Coastal Act.

IV. FINDINGS AND DECLARATIONS

A. PROJECT DESCRIPTION/HISTORY

The proposed project involves the repair and expansion of five existing seacave/notch infills. The subject site is located on the bluff top and on the beach approximately 350 feet north of Tide Beach Park in the northern portion of the City of Solana Beach. The proposed infills will have a cumulative length of approximately 92 feet and depths ranging from 3 to 19 feet and will range from 7.8 to 17.5 feet high. In addition, one existing infill that has migrated onto the public beach is proposed to be removed The existing infill that is proposed to be removed is approximately 6 ft. by 4 ft. and encroaches on approximately 24 sq. ft. of beach area (Exhibit 3). Exhibit 2 shows the 5 existing seacave infills that were constructed pursuant to CDP Nos. 6-87-391 and 6-91-081 and also shows the proposed seacave/notch infill expansion and maintenance. In addition, proposed maintenance of the existing seacave infills may include an application of a sculpted and colored aesthetic erodible concrete face to the existing infills (Exhibit 7).

The proposed seacave and notch infill expansions consist of erodible concrete that will be aesthetically colored and sculpted. The infill expansions will be keyed into formational bedrock and will extend vertically up to the dripline of the Torrey Sand stone. The seacave/notch infills are designed to match the natural appearance of the surrounding bluffs and to erode at the same rate as the bluffs (Exhibit 8).

The applicant also proposes to remove the permanent irrigation and lawn on the bluff top lot and to install artificial turf.

In August of 1987, the Commission approved CDP #6-87-391 for the filling of five seacaves located on the beach below the subject site. The 5 seacaves extended up to 75 ft. into the bluff. At that time, a 3,332 sq. ft. single family home, built prior to the implementation of the Coastal Act covered both bluff top lots at 523 and 525 Pacific Avenue. The Commission recognized that the seacave infill would potentially have various adverse impacts to natural shoreline processes, including temporarily stopping bluff retreat, steepening the beach profile, and increasing beach erosion adjacent to the concrete infills. However, the seacave infills were proposed to be designed with joints which would result in segments of the seacaves breaking off as the surrounding bluff weathered and retreated. The Commission found that the seacave infills were consistent with Coastal Act Section 30235 and were necessary to provide protection for the existing bluff top structure. CDP #6-87-391 was subsequently issued. However, instead of completely filling the seacaves consistent with the Commission approval, the seacaves were only "plugged," a void was left behind the "plugs," and the fill did not include "joints," as proposed.

In September of 1988, the Commission approved an amendment to CDP #6-87-391 to delete a special condition of the permit that required dedication of a lateral public access easement between the mean high tide line and the toe of the bluff. The Commission had previously required the lateral public access easement because the City of Solana Beach quitclaimed all City-owned land areas landward of the mean high tide line to the applicant. At the time that the Commission approved CDP #6-87-391, no accurate survey of the bluff or beach had been accomplished to determine the exact location of the lands to be transferred. It appeared that some portion of the formerly public sandy beach area may have been quitclaimed to the applicant. However, a detailed survey was subsequently provided to the Commission that showed that no public sandy beach areas had been deeded to the applicant. The quitclaim only affected the area down to the toe of the bluff and no lands seaward of the toe of the bluff were involved in the transfer of ownership. Given the clarification of the nature of the lands transferred to the applicant and the documentation that there would be no loss of sandy beach area available to the public, the Commission approved the amendment and found that the proposed seacave infills and the land transfer was consistent with all the public access and recreation policies of the Coastal Act, even absent the lateral access dedication.

In July of 1991, the Commission approved CDP #6-91-81 for the demolition of the existing home that was built before the effective date of the Coastal Act and construction of a new 3,135 sq. ft. single family residence on one of the two lots and a boundary adjustment between the two lots. In addition, the Commission approval included the infilling of the seacaves that were previously only "plugged". As stated above, the seacaves extended up to 75 ft. into the bluff. To infill landward of the previously installed plugs, the applicant bored through the bluff from the bluff top and pumped in concrete fill material.

At the time of the Commission action, the applicant was provided an option of either locating the home at least 40 feet from the bluff edge or locating the home closer than 40 feet from the bluff edge, subject to special conditions incorporating planned retreat from the bluff edge if the home was threatened by erosion in the future. The applicant chose to site the home 29 feet from the bluff edge and designed the home so that it could be removed if necessary. Conditions of the CDP required, in part, that a deed restriction be recorded against the property that prohibits the landowner from constructing any future upper or lower bluff stabilization devices and requires the landowner to remove the home if the bluff erodes to within 5 feet of it.

The subject seacave/notch infill maintenance and expansion project has been substantially modified from the project that was approved by the City on October 12, 2011 (ref: City of Solana Beach CUP 17-11-13). In the project approved by the City, the applicant proposed to use a full strength concrete infill and to anchor the concrete to the bluff with multiple soil nails. The project would have resulted in the de facto creation of a seawall and would not have eroded at the same speed as the adjacent bluff as required by the City's certified LUP. In addition, as stated above, shoreline armoring (aside from seacave/notch infill) is not permitted to protect the blufftop home subject to special condition 2a of CDP #6-91-81 which required that the applicant record a deed restriction stating the following:

> *That the landowner not construct any upper or lower bluff stabilization devices, other than the necessary filling of seacaves in the future and the seacave filling approved pursuant to CDP #6-91-81 and any maintenance that may be necessary for these infilled seacaves in the future, to protect the subject single-family residence and/or accessory structures in the event that these structures are subject to damage from erosion, storm wave damage, or other natural hazards in the future.* (Exhibit 10)

The applicant has worked with Coastal Commission Staff and City Staff to modify the proposed project to be consistent with the certified LUP. The applicant now proposes to use only erodible concrete and has provided parameters such that the erodible concrete used will be designed to provide a material with erosion characteristics similar to that of the existing bluff. The Commission's Coastal Engineer has reviewed the proposed material specifications and concurs with the design parameters.

Directly adjacent to the subject site to the south at 521 Pacific Avenue is a lower bluff seawall that was approved by the Commission in 2009 to protect an existing single family home (CDP #6-08-122/Winkler).

Directly adjacent to the subject site to the north at 529 Pacific Avenue, the bluff remains in its natural state and no seacave/notch infills or other forms of shoreline armoring have been approved. Two properties to the north of the subject site at 533 Pacific, the Commission approved the filling of three seacaves at the base of the bluff to protect an existing single family residence (CDP #6-99-091/Becker).

The seacaves/notches are located at the base of an approximately 65 foot high coastal bluff below one existing bluff top single-family residence and one bluff top vacant lot in the City of Solana Beach. The subject site is located at the north end of the City, approximately 350 feet north of the Tide Beach Public Access stairs (Exhibit 1). The Commission recently certified the City's Land Use Plan; however, the City of Solana Beach does not yet have a certified LCP. Therefore, the Chapter 3 policies of the Coastal Act are the standard of review, with the certified LUP used as guidance.

B. GEOLOGIC STABILITY

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...*

Section 30253 of the Act states, in part:

> *New development shall do all of the following:*
>
> *(a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.*
>
> *(b) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs...*

In addition, the following certified City of Solana Beach Land Use Plan (LUP) language, although not the standard of review, provides additional guidance regarding geologic hazards and shoreline protection:

Policies 4.26, 4.27, and 4.28 of the Hazards and Shoreline/Bluff Development chapter state the following:

> *Policy 4.26: With respect to bluff properties only, the City will require the removal or capping of any permanent irrigation system within 100 feet of the bluff edge in connection with issuance of discretionary permits for new development, redevelopment, or shoreline protection, or bluff erosion, unless the bluff property owner demonstrates to the satisfaction of the Public Works Director, or the CCC if the project is appealed, that such irrigation has no material impact on bluff erosion (e.g., watering hanging plants over hardscape which drains to the street).*

Policy 4.27: Require all bluff property landscaping for new development to consist of native, non-invasive, drought-tolerant, fire-resistant, and salt-tolerant species.

Policy 4.28: All storm water drain systems that currently drain or previously drained towards the west over the bluff shall be capped. These systems should be redesigned to drain directly, or through a sump system, and then pumped to the street in compliance with SWP 2007-0001 and consistent with SUSMP requirements. This policy shall be implemented as a condition of approval for all discretionary permits issued for bluff properties or within 5 years of adoption of the LCP, whichever is sooner.

Policy 4.50 of the Hazards and Shoreline/Bluff Development chapter states the following:

A Seacave/Notch Infill shall be approved only if all the findings set forth below can be made and the stated criteria satisfied. The permit shall be valid for a period of 20 years commencing with the date of CDP approval and subject to an encroachment removal agreement approved by the City.

(A) Based upon the advice and recommendation of a licensed Geotechnical or Civil Engineer, the City makes the findings set forth below:

(1) The Seacave/Notch Infill is more likely than not to delay the need for a larger coastal structure or upper bluff retention structure, that would, in the foreseeable future, be necessary to protect and existing principal structure, City facility, and/or City infrastructure, from danger of erosion. Taking into consideration any applicable conditions of previous permit approvals for development at the site, a determination must be made based on a detailed alternatives analysis that none of the following alternatives to the coastal structure are currently feasible, including:

- *Controls of surface water and site drainage;*
- *A smaller coastal structure;*
- *Other non-beach and bluff face stabilizing measures, taking into account impacts on the near and long term integrity and appearance of the natural bluff face, and contiguous bluff properties; and,*

(2) The bluff property owner did not create the necessity for the Seacave/Notch Infill by unreasonably failing to implement generally accepted erosion and drainage control measures, such as reasonable management of surface drainage, plantings and irrigation, or by otherwise unreasonably acting or failing to act with respect to the

bluff property. In determining whether or not the bluff property owner's actions were "reasonable," the City shall take into account whether or not the bluff property owner acted intentionally, with or without knowledge, and shall consider all other relevant credible scientific evidence as well as relevant facts and circumstances.

(3) The location, size, design and operational characteristics of the proposed seacave/notch infill will not create a significant adverse effect on adjacent public or private property, natural resources, or public use of, or access to, the beach, beyond the environmental impact typically associated with a similar bluff retention device and the seacave/notch infill is the minimum size necessary to protect the principal structure, has been designed to minimize all environmental impacts, and provides mitigation for all coastal and environmental impacts as provided for in this LCP.

(B) The Seacave/Notch Infill shall be designed and constructed:

(1) To avoid migration of the Seacave/Notch Infill onto the beach;

(2) To be re-contoured to the face of the bluff, as needed, on a routine basis, through a CDP or exemption, to ensure the seacave/notch infill conforms to the face of the adjoining natural bluff over time, and continues to meet all relevant aesthetic, and structural criteria established by the City;

(3) To serve its primary purpose which is to delay the need for a larger coastal structure, and designed to be removable, to the extent feasible, provided all other requirements under the LCP are satisfied; and,

(4) To satisfy all other relevant LCP and City Design Standards, set forth for coastal structures.

(C) The Bluff Property Owner shall arrange for and pay the costs of:

(1) The licensed Geotechnical or Civil Engineer; and

(2) The Seacave/Notch Infill

(3) Appropriate mitigation

(4) All necessary repairs, maintenance, and if needed removal.

(D) Only to the extent the City finds that the Seacave/Notch Infill encroaches on the public beach or upon the bluff face such that coastal resources are adversely impacted, then the City shall impose a Sand Mitigation Fee upon the bluff property owner.

The bluffs in Solana Beach are mostly approximately 80-foot high, and include a "clean sands" lens located between the Torrey Sandstone and Marine Terrace Deposits (at approximately elevation 25-35 ft.). The clean sand layer has been described as a very loose sandy material with a limited amount of capillary 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 sand dries out and loses the capillary tension that initially held the materials together.

When on-going wave action, often exacerbated by a lack of beach sand, results in bluff retreat and erosion, the presence of the clean sands creates a process where 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 can occur so quickly (over months or days, rather than years) that the upper bluff never achieves a stable angle of repose.

The cycle of collapse and retreat can be slowed through the construction of seacave/notch infills. The process of undercutting and notching of the bluffs seen along the Solana Beach shoreline represents the natural process of bluff retreat and erosion in this portion of North San Diego County. The process has clearly accelerated in Solana Beach over the last decade as the amount of sand on the beaches has decreased and the bluffs are subject to more frequent wave action. Because all of the bluff top lots in Solana Beach (aside from the vacant lot at 523 Pacific Avenue) are currently developed with single and multi-family structures, there is very little opportunity for the bluffs to retreat without adversely affecting the safety and stability of existing principal structures. Thus, some amount of shoreline protection along much of Solana Beach may be unavoidable.

The City's certified LUP is designed to guide development such that impacts from shoreline protection are avoided whenever possible, and that when shoreline protection is unavoidable, it is limited to the greatest extent feasible. Policy 4.50 allows seacave/notch infill projects to be approved, even when an existing principal structure is *not* in imminent danger or meeting the standard for construction of a seawall. Such projects would function as preventative measures that, on the whole, will serve to minimize impacts to coastal resources. In general, notch and seacave infills are a relatively minimal type of protection that can be expected to delay the need for a much larger seawall-type of shoreline protection that is far more visually obtrusive, and requires more alteration of the natural landform.

As shown above, Policy 4.50 of the City's LUP requires that impacts to coastal resources be assessed and mitigated, that seacave/notch infill is subject to a 20 year approval authorization, and that infills be subject to an encroachment removal agreement. However, on January 9, 2014 the Commission approved a suggested modification to the certified LUP to remove the requirement to impose a Sand Mitigation Fee for erodible concrete seacave/notch infills. In addition, the Commission approved a suggested modification to the certified LUP to remove the requirements to authorize the permit for a defined 20 year period and be subject to an encroachment removal agreement. As detailed below, the proposed erodible concrete seacave/notch infills are designed to erode

landward at a rate comparable to the adjacent bluffs and will therefore not adversely impact coastal resources and will naturally deteriorate, thus making a permit authorization period or encroachment removal agreement unnecessary. The Local Coastal Planning Section of this report further details the Commission actions on January 9, 2014 and the consistency of the subject CDP with the city's certified LUP, which can be used as guidance in this case.

The proposed development is located at the base of a coastal bluff in the City of Solana Beach. Historically, the Commission has approved a number of coastal development permits for seacave/notch infills similar to the proposed project on the bluffs in Solana Beach (6-87-391/Childs; 6-92-82/Victor; 6-96-102/Solana Beach & Tennis Club; 6-97-1646/Lingenfelder; 6-98-25/Stroben; 6-98-29/Bennett; 6-99-091/Beacker; 6-99-103/Coastal Preservation Association; 6-00-066/Pierce & Monroe). The seacave/notch infill, as proposed, consists of erodible concrete that can be aesthetically colored and sculpted. The infill expansions will be keyed into formational bedrock and will extend vertically up to the dripline of the Torrey Sand stone. The seacave/notch infills will be designed to match the natural appearance of the surrounding bluffs and erode at the same rate as the bluffs.

The geotechnical report by Geotechnical Exploration, Inc., submitted by the applicant on April 17, 2012 with the subject application, identifies the following instability concerns to the bluff and the bluff top property at the subject site:

> *"Cave plug-to-bluff contact deterioration has exposed and formed cave voids extending into the bluff face. The potential for collapse of the Torrey Sandstone roof materials followed by undermining and progressive failure of very low cohesion overlying terrace sands exposes the existing home to structural settlement-related damage." (Page 2)*
>
> *"…due to cave formation and collapse processes, bluff face recession is rapid and on the order of 1 foot per year below the subject property. Due to the current degree of overhang and cave re-opening along existing cave plug lateral margins, significant failure events and accelerated upper bluff recession is imminent. Furthermore, due to the re-opening of caves, Torrey Sandstone "roof" collapse and subsequent failure of the overlying low cohesion sands of the Bay Point Formation into the cave void poses a significant threat to the top of bluff top property and home…Should the upper bluff terrace sands fail into the cave void following roof collapse and recede to their natural angle of repose of 45 degrees, the home would be adversely impacted…" (Pages 19-20)*

A subsequent geotechnical memo submitted on April 9, 2013 by the applicant's engineer in response to a Commission staff request for information identifies the following:

> *"The collapse of the outer approximately 10 feet of the sea cave causes an immediate 12 percent reduction in bluff stability, suggesting an immediate failure propagating up to the top of the bluff, and with the likely immediate*

failure scarp located about 10 feet from the residence, with likely additional failure scarps quickly propagating to within possibly 5 feet of the residence…"

The submitted geotechnical information attributes the formation of the notch overhangs along this portion of the Solana Beach shoreline to increasing amounts of wave action. The lower bluff along this section of shoreline consists of Torrey Sandstone which is identified as one of the least resistant bedrock formations along the North County coast. As waves impact the Torrey Sandstone, notches are formed creating an overhanging layer of Torrey Sandstone. As the overhang loses support from beneath, its weight along with any structural weakness in the Torrey Sandstone formation eventually leads to a block-like failure. The submitted geotechnical information indicates that these existing overhangs will eventually collapse, undermining the upper bluff and triggering progressive upper-bluff failures.

Since the El Niño Storms of 1997-98 much of this northern portion of the Solana Beach shoreline has experienced the collapse of seacave roof rock and overhang notches. There is currently relatively little sand on the beach, and the bluffs receive near constant wave action. Prior to El Niño, the undercutting that had occurred was slower because the presence of more sand meant the bluffs received less wave action. Collapse of the seacaves or the adjacent overhangs undermine the upper sloping terrace deposits which, in this case, probably include a layer of "clean sands". The predicted collapse of the seacave has been identified by the applicant's geotechnical report as posing a threat to the existing residential structure. The applicant also contends that the existing notch overhang and eventual resulting block failure, combined with the added factor of a clean sands layer, could result in a threat to the primary structure at the top of the bluff.

The Commission's staff engineer and geologist have reviewed the applicant's geotechnical information and concluded that the seacaves and notches at the subject site pose a significant risk to the stability of the bluff. However, as confirmed by the applicant's geotechnical letter dated April 9, 2013, the failure scarp does not extend as far back as the building footprint and thus the next immediate failure will not threaten the primary structure at 525 Pacific Avenue. Thus, the primary bluff top structure is not in immediate danger from bluff collapse.

In reviewing requests for shoreline protection, the Commission must assess the need to protect private residential development and the potential adverse impacts to public resources associated with construction of shoreline protection. In numerous past actions, the Commission has found that the filling of seacaves or notch overhangs as a preemptive measure has fewer impacts upon coastal resources and access than the construction of seawalls and upper bluff structures, which are frequently required to protect existing structures after the collapse of seacaves or other bluff features. In this case, the potential collapse of the subject seacaves and notches are a preventive measure to stop or reduce the potential for collapses of the overhanging area and to stabilize the bluff in an area where there is evidence of the presence of a "clean sands" lens. Based on information submitted by the applicant, if erosion at the site is not slowed, the existing blufftop structure would be threatened sometime in the future.

Alternatives

Alternatives to the proposed seacave and notch infills could include no project, rock riprap, a much larger seacave/notch infill totaling 160 feet in length, chemical grouting, and underpinning of the existing bluff top structure. In this case, these alternatives have been determined to be infeasible.

A riprap revetment can be relatively quickly installed and can protect the base of the bluff. However, these armoring devices require significant maintenance to ensure they continue to function in their approved state, leading to significant adverse resource impacts each time. Because their foundations are wide, revetments normally occupy a large area of beach. Migrating boulders can also lead to isolated impacts over time, expand the loss of beach area and cumulatively can lead to larger impacts. In addition, a revetment would only protect the lower bluff from future wave action and would not prevent the existing seacaves/notches from collapsing and destabilizing the mid and upper bluff. Most importantly, the previously required deed restriction on the subject site would not allow for this alternative. Thus, a rip rap revetment would not be a preferred alternative to the proposed erodible concrete seacave/notch infills.

Another alternative considered by the applicant was a seacave/notch infill for the entire 160 ft. property fronting 523 and 525 Pacific Avenue. This alternative is precluded by a deed restriction required by the Commission on the subject property which only allows maintenance of the existing sea cave infills.

Groundwater controls, irrigation restrictions, and installation of drought-tolerant plantings are required by the City's certified LUP. The applicant has submitted documentation that the subject site already drains towards the street, so that there is currently very little over-bluff discharge. The applicant contends that the upper bluff has only eroded about 2 feet since construction of the home approximately 20 years ago, while the lower bluff has receded as much as 12 feet. Thus, the applicant argues that upper bluff runoff is not the cause of erosion and that stricter irrigation/landscaping controls will not mitigate ongoing enlargement of seacaves/notches. However, the applicant has proposed to remove all permanent irrigation and the lawn from the two bluff top lots and to install artificial turf, which is consistent with the City's certified Land Use Plan and will reduce the risk of an irrigation pipe bursting and additional bluff failure.

The use of chemicals for densification of loose, compressible soils is a stabilization method that has been implemented in the past. However, the applicant's engineer states that in order for chemical grouting to effectively "glue" the bluff sands in a stable formation, the outer 5 to 10 feet of the bluff face would have to be permeated. Chemical grouts are injected under pressure, and the applicant's engineer has stated that it would be essentially impossible to effectively contain a bluff face during pressure injection, and even controlled grouting could blow out portions of the slope face if any excess pressure buildup occurred. In addition, the process of injecting a chemical into sand under pressure on an unstable coastal bluff presents a significant construction challenge and

safety issue. Thus, it does not appear that the technology exists at this time to stabilize a coastal bluff with chemicals in place of shoreline protection.

Underpinning of the existing home may potentially be considered as an alternative to the proposed project; however, this would not stop the seacaves/notches from collapsing and eventually undermining the home. In addition, when the seacaves and upper bluff eventually collapse, the underpinning system would soon be exposed to view, which is a less-desirable visual condition than the relatively low-scale proposed seacave/notch infill. The eventual exposure of the underpinning in this case would be inconsistent with Coastal Act section 30253 as it would result in alteration of the natural landforms.

Because the existing blufftop structure would be threatened sometime in the future if the subject seacaves/notches continued to erode and collapse, the "no project" alternative is not a potential option in this case. If no action is taken, the existing upper bluff will continue to fail and future enlargement of the seacaves may result in more bluff-top loss and could be catastrophic to both the subject home and adjacent homes. In addition, the previous actions by the Commission allow for filling of seacaves and necessary maintenance of previously approved seacaves.

The Commission engineer and geologist concur that the proposed project results in the minimal amount of maintenance in order to allow the previously approved seacave infills to function as designed. In addition, the City's certified LUP allows for the filling of seacaves/notches as a preventative measure.

The proposed seacave and notch infills do alter the natural coastline. However, given the amount of coastal erosion which has occurred in the area over the last several years, Solana Beach is currently faced with the possibility of armoring the entire shoreline north of Fletcher Cove with seawalls. The subject site is an area where preventive measures such as the subject seacave and notch infills represent a feasible alternative to a seawall. In addition, as infill of the seacaves will reduce the potential for a significant bluff failure, the applicant, the City and the region as a whole will have more time to pursue other non-structural methods, such as beach replenishment and moving the line of bluff top development landward away from the bluff edge, to protect the bluffs and delay the need for more substantial shoreline protection. Therefore, the Commission finds that approval of the proposed seacave/notch infills is consistent with the long-term goals of the Coastal Act regarding the protection of natural shoreline processes, natural landforms and local shoreline sand supply.

In order to monitor the status of the seacave/notch infill and to ensure that that the infills continue to function as proposed, Special Condition 2 requires submittal and implementation of a monitoring program to include, at a minimum, periodic measurements of the distance between the bluff edge and the residence, an evaluation of the condition of the infills (i.e., whether any significant weathering or damage has occurred that would adversely impact the performance of the infills) and measurements of the distance between the face of the seacave/notch infill and the bluff face, to ensure the infill material is eroding as designed. The reports must be submitted to the Commission every two years for the first six years, then at three-year intervals and/or

following any major storm event, whichever is more frequent. The Special Condition also requires that should any portion of the existing or proposed seacave/notch infills be found to extend seaward of the face of the natural bluff by more than six (6) inches in any location, the report must include alternatives and recommendations to remove or otherwise address this condition. This monitoring condition is consistent with past Commission approvals of seacave infill projects in Solana Beach (Ref: 6-00-066/Pierce and Monroe).

Special Condition 3 requires the permittee to maintain the seacave/notch infill; for example, the removal of debris deposited on the beach during construction of the seacave/notch infill or damage to the infill in the future. Minor re-grouting or exempt maintenance as defined by Section 13252 of the California Code of Regulations (i.e., color, texture, etc.) shall not require an additional coastal development permit or amendment. However, whenever changes or maintenance on the seacave/notch is proposed, the applicant shall contact the Commission office to determine whether permits are necessary.

In addition, in the event that it is determined through the monitoring report or visual observation that any portion of the existing or proposed seacave/notch infill extends seaward of the face of the adjacent natural bluff more than six inches, Special Condition 3 requires that the applicant obtain and implement a coastal development permit to remove the portion extending onto the beach, or to implement other corrective measures. Removal of the protruding infill will consist of all material located seaward of a 'stringline' between the natural bluff up and down coast of the infill and will not merely consist of minimal removal at the edges of the infill. The purpose of this condition is to ensure that the permittee will remove any portion of the infill that extends seaward of the bluff face pursuant to a coastal development permit. Thus, the Commission can be assured that, as conditioned, the infill will be properly maintained and will erode or be physically removed at the same rate as the adjacent bluff and that any adverse impacts to shoreline processes have been or will be mitigated.

While the submitted geotechnical report indicates that surface groundwater on the face of the bluff is not a problem in this area of Solana Beach, the failures of irrigation lines or excess watering of the blufftop can trigger collapses of bluff-top sediments. The City's certified LUP recognizes this danger and requires that with the approval of any shoreline protection permit, irrigation located within 100 feet of the bluff edge must be capped or removed. The City's approval of the subject seacave and notch infills was not conditioned on the removal of any existing blufftop irrigation devices. Therefore, Special Condition 10 has been attached to require the applicant to remove or cap all permanent irrigation devices on 523 or 525 Pacific Avenue to prevent over-watering or accidental breakage of irrigation lines. In terms of landscaping requirements, the certified LUP requires that bluff landscaping for new development consist of native, non-invasive, drought-tolerant, fire-resistant, and salt-tolerant species. The property at 525 Pacific Avenue was previously conditioned by the CCC pursuant to CDP #6-91-081 to install draught and salt-tolerant plant materials to the maximum extent feasible, while there is currently no landscaping requirement on 523 Pacific Avenue. The property at 525 Pacific Avenue and the adjacent vacant lot at 523 Pacific Avenue are currently

landscaped with a large grass lawn. The applicant has proposed to remove all irrigation within 100 feet of the bluff edge and to install artificial turf covering both properties. In addition, any future applications for new development on either of the subject bluff top properties will be conditioned to require only native, non-invasive, drought-tolerant, fire-resistant, and salt-tolerant species pursuant to the certified LUP.

The proposed development has been designed and conditioned to be the least environmentally damaging feasible alternative. Although the Commission finds that the seacave/notch infill has been designed to minimize the risks associated with its implementation, the Commission also recognizes the inherent risk of shoreline development. The seacave/notch infill will be subject to wave action and will be at or landward of the drip line of the eroding bluff to the north and above the infill. Thus, there is a risk of bluff failure during and after construction of the seacave/notch infill. In addition, there is a risk of damage to the seacave/notch infill or damage to property as a result of wave action on the seacave/notch infill. Given that the applicant has chosen to construct the seacave/notch infill despite these risks, the applicant must assume the risks. Accordingly, Special Condition 5 requires that the applicant assume these risks and waive any claim of damage or liability against the Commission for approval of this application. To ensure that future property owners are properly informed regarding the terms and conditions of this approval, Special Condition 6 requires a deed restriction to be recorded against the property involved in the application. Special Conditions 7 requires the applicant to submit a copy of any required permits from the State Lands Commission, to ensure that no additional requirements are placed on the applicant that could require an amendment to this permit.

In summary, the proposed maintenance project will prevent the subject seacaves/notches from collapsing, which could result in eventual damage to the existing home. The seacave/notch infill maintenance has been determined to be a preventative measure to protect the existing residence from the threat of erosion. Given the above special conditions, the risk to the bluff top structure will be minimized, with minimum adverse impacts to shoreline sand supply and public beach area. Therefore, the Commission finds that the subject development, as conditioned, is consistent with Sections 30235 and 30253 of the Coastal Act.

C. VISUAL RESOURCES

Section 30251 of the 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...*

In addition, the following certified City of Solana Beach LUP language, although not the standard of review, can provide pertinent information and guidance regarding the

protection of coastal zone visual resources:

> ***Policy 4.30****: Limit buildings and structures on the sloped face and toe of the bluff to lifeguard towers, subsurface public utility drainage pipes or lines, bluff retention devices, public stairs and related public infrastructure which satisfy the criteria established in the LCP. No other permanent structures shall be permitted on a bluff face. Such structures shall be maintained so that they do not contribute to further erosion of the bluff face and are to be visually compatible with the surrounding area to the maximum extent feasible.*
>
> ***Policy 4.39****: Maximize the natural, aesthetic appeal and scenic beauty of the beaches and bluffs by avoiding and minimizing the size of bluff retention devices, preserving the maximum amount of unaltered or natural bluff face, and minimizing encroachment of the bluff retention device on the beach, to the extent feasible, while ensuring that any such bluff retention device accomplishes its intended purpose of protecting existing principal structures in danger from erosion.*

The proposed development is located on the face of a coastal bluff at or landward of the drip line and at the same level as the existing sandy beach. Seacaves and notch infills have been a fairly prominent feature of the shoreline in this area, and filling the cave and notch overhangs will alter the natural appearance of the bluffs. Matching infill material to the appearance of natural bluffs can be a tricky process and it can be difficult to tell at the time of application how well the infill material will blend into the surrounding natural bluffs. Another difficulty is that weathering can change the appearance of the seacave/notch infills. Thus, even if the infills match the natural bluffs closely one year, several years later there may be a distinct difference in appearances. Furthermore, the erodible concrete mix proposed by the applicant can be more difficult to treat aesthetically, due to the nature of erodible concrete. To address the difficulties of aesthetically treating erodible concrete, the applicant proposes to use a pre-constructed form for the face of the infills and, to the extent possible, add some irregularities in the forms to avoid a perfectly planar surface. Once the concrete takes its initial set, the time of which will be determined by the contractor, the forms would be stripped and the surface then texturized and ultimately colored to create a naturalized face to blend in with the adjacent coastal bluff.

Special Condition 1 requires the applicant to submit final plans of the method chosen to color and texturize the infill material, with a color board indicating the color of the infill material. Per Special Condition Nos. 2 &3require the applicant to monitor and maintain the color of the infill to ensure the material continues to blend in with the surrounding bluffs in the future. Special Condition 9 also addresses this concern and requires the applicant to submit as-built plans within 60 days of construction of the proposed development to assure the infill has been constructed according to the approved plans.

There are numerous seacave and notch infills along the bluffs in Solana Beach. These infills, while mostly visible, are relatively inconspicuous and do not represent a significant visual blight. In addition, at times when the sand levels are high, these infills

may not be visible. The appearance of the proposed project would be consistent with the various existing infills located in the bluffs along the Solana Beach coast. Seacave and notch infills are considerably less visually prominent than traditional seawall projects or riprap revetments. Thus, although the project will have an impact on the appearance of the bluffs, the project has been designed and conditioned to match the surrounding natural bluffs to the maximum extent feasible, thereby reducing potential negative visual impacts to the maximum extent feasible. Therefore, the Commission finds that the subject development is consistent with Section 30251 of the Coastal Act.

D. PUBLIC ACCESS

Many policies of the Coastal Act address the provision, protection and enhancement of public access to and along the shoreline. These policies address maintaining the public's ability to reach and enjoy the water, preventing overcrowding by providing adequate recreational area, protecting suitable upland recreational sites, and providing adequate parking facilities for public use. In addition, Section 30604(c) requires that a specific access finding be made for all development located between the sea and first coastal roadway. In this case, such a finding can be made.

> ***Section 30210****: In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.*
>
> ***Section 30211****: Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.*
>
> ***Section 30212.5****: Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects…*
>
> ***Section 30220****: Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.*

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.*

Coastal Act Section 30240(b) also protects parks and recreation areas such as the adjacent public beach park. Section 30240(b) states:

> ***Section 30240(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.*

The City's certified LUP polices related to public access state:

> ***Policy 4.18****: A legally permitted bluff retention device shall not be factored into setback calculations. Expansion and/or alteration of a legally permitted bluff retention device shall include a reassessment of the need for the shoreline protective device and any modifications warranted to the protective device to eliminate or reduce any adverse impacts it has on coastal resources or public access, including but not limited to, a condition for a reassessment and reauthorization of the modified device in 20 years.*
>
> ***Policy 4.40:*** *Provide for reasonable and feasible mitigation for the impacts of all bluff retention devices which consists of the payment of Sand Mitigation Fees and Public Recreation Fees to the City or other assessing agency.*
>
> ***Policy 4.52:*** *The bluff property owner shall pay for the cost of the coastal structure or Infill and pay a Sand Mitigation Fee and a Public Recreation Fee per Policy 4.40. These mitigation fees are not intended to be duplicative with fees assessed by other agencies. It is anticipated the fees assessed as required by this LCP will be in conjunction with, and not duplicative with, the mitigation fees typically assessed by the CCC and the CSLC for impacts to coastal resources from shoreline protective devices.*
>
> *Sand Mitigation Fee - to mitigate for actual loss of beach quality sand which would otherwise have been deposited on the beach. For all development involving the construction of a bluff retention device, a Sand Mitigation Fee shall be collected by the City which shall be used for beach sand replenishment and/or retention purposes. The mitigation fee shall be deposited in an interest-bearing account designated by the City Manager of Solana Beach in lieu of providing sand to replace the sand that would be lost due to the impacts of any proposed protective structure. The methodology used to determine the appropriate mitigation fee has been approved by the CCC and is contained in LUP Appendix A. The funds shall solely be used to implement projects which provide sand to the City's beaches, not to fund other public operations, maintenance, or planning studies.*
>
> *Public Recreation Fee – Similar to the methodology established by the CCC for the sand mitigation fee, the City and the CCC are jointly developing a*

methodology for calculating a statewide public recreation fee. To assist in the effort, the City has shared the results of their draft study with the CCC to support their development of a uniform statewide Public Recreation / Land Lease Fee. Until such time as an approved methodology for determining this fee has been established, and the methodology and payment program has been incorporated into the LCP through an LCP amendment, the City will collect a $1,000 per linear foot interim fee deposit. In the interim period, CCC will evaluate each project on a site-specific basis to determine impacts to public access and recreation, and additional mitigation may be required. The City shall complete its public UP.

The subject project is located on the bluff formation directly adjacent to a public beach. Although public lateral access is available along the entire stretch of coastline in this area, mostly at low tides, vertical access is available only at a limited number of public accessways. Because of the nature of the topography of the area, with steep, fragile coastal bluffs between the first public roadway and the coastline, and the existing, highly developed pattern of development, the provision of additional vertical public access is not practical at this time. In addition, there is an existing public beach access approximately 350 feet south of the subject site at the Tide Beach Park. The proposed seacave and notch fills will not impact this accessway.

Shoreline protection projects do have the potential to impact existing lateral access along the beach. Structures which fix the back of the beach stop the landward migration of the beach profile while the seaward edge continues to erode, thereby reducing the amount of dry sandy beach available to the public. However, the proposed seacave/notch infill maintenance and expansion project has been designed to erode at a comparable rate as to natural bluff and is not predicted to impact available beach area in the future. The Commission does not typically require the payment of funds to mitigate for the public access and recreation impacts of seacaves in Solana Beach because they do not have the same type of adverse impacts that other types of shoreline armoring do. Because seacave and notch overhang infills are set within the bluff face, unlike seawalls, the infills do not result in an immediate loss of usable beach area through encroachment. In addition, there is no passive erosion loss because the back of the beach is not permanently fixed as a result of the erodible mixture used in seacave/notch infill construction. Although, if not properly constructed and maintained, seacave infills can have an adverse impact on public access if they do fix the back of the beach.

The applicant is proposing to remove existing seacave infill "B," which is no longer connected to the bluff (Exhibit 3). Infill "B" currently covers approximately 24 sq. ft. of beach area. In addition, a portion of existing seacave infill "C" is protruding approximately 7 ft. seaward of the adjacent bluff on either side (Exhibit 4). The portion of the seacave infill that encroaches onto public beach has approximate dimensions of 12 ft. by 7 ft., and thus directly encroaches on approximately 84 sq. ft. of beach area. At medium and high tides, this protrusion has the potential to adversely impact lateral access along the shoreline, which will be exacerbated as the adjacent bluff continues to erode landward, if the protrusion is not removed.

To address the encroachment of infill "C" and "B" onto the public beach, Special Condition 1 requires that final plans be submitted which indicate that the previously constructed infill labeled "B" will be removed from the beach (Exhibit 3) and that the previously constructed infill labeled "C" will be cut back such that it will not encroach seaward of a 'stringline' between the adjacent natural bluff north and south of the infill, which is depicted as the dashed line in Exhibit 4 (Exhibits 4-6). Special Condition 1 also requires the applicant to submit final plans documenting that the proposed new infill will not extend seaward of the existing bluff face. In addition, the final plans are required to be modified such that no new infill material is placed landward of a 'stringline' between the adjacent natural bluff north and south of the infill "C". Furthermore, Special Condition 3 requires that if any portion of the existing seacave infills is encroaching more than 6 inches seaward of the stringline of the natural bluff in the future, then the applicant must obtain a CDP amendment to remove the encroachment or otherwise remedy the situation.

The project proposed by the applicant and approved in CDP #6-87-391 required that the seacave infills were to be constructed with joints that would allow the infill to break off as the adjacent natural bluff eroded landward. As detailed in the project history section of this staff report, the permittee did not construct the seacave infills consistent with the Commission's approval and instead only plugged the openings to the seacaves. Had the permittee constructed the seacave infills with joints in the concrete, as originally proposed, the seacave fill would break apart as the bluff eroded landward, and the debris could be easily removed from the beach. Thus, had the applicant constructed the seacave fill as originally proposed and permitted, it would likely not be necessary for the Commission to require removal of infill "C" as part of this permit.

Special Condition #3 of CDP #6-87-391 states:

> *3. Storm Design and Debris Removal. Prior to the transmittal of the coastal development permit, the applicant shall submit certification by a registered civil engineer that the proposed seacave filling is designed to withstand storms comparable to the winter storms of 1982-83. The applicant shall be responsible for the removal of debris that is deposited on the beach or in the water during construction of the shoreline protective device or as a result of the failure of the shoreline protective device.*

Page 9 of the findings for CDP #6-87-391 state, in part:

> *…The attached special condition #3 requires the applicants to accept maintenance responsibility for the permitted seacave filling in the event that improper construction or normal weathering causes debris to become dislodged onto the beach or erosion around the cave results is [sic] a segment of the concrete plug to be dislodged onto the beach, thus impeding public access. The seacave fill material is designed with joints which will result in segments of the concrete fill breaking off as the surrounding bluff weathers and retreats, resulting in inevitable rubble deposited on the beach…*

The Commission finds that the removal of the portion of infill "C" located seaward of the natural bluff is required based on the following three reasons. First, the intent of CDP #6-87-391was to prevent large seacave collapses, while still allowing the bluff to retreat landward through the natural weathering process (Exhibit 9). It does not appear that the applicant constructed the existing seacave infills consistent with CDP #6-87-391 which was approved such that the seacave infills would naturally retreat landward as the adjacent natural bluffs eroded. Second, Special Condition #3 of CDP #6-87-391 requires that the applicant be responsible for removal of debris deposited on the beach as a result of the failure of the seacave infills and Special Condition #7 of CDP #6-87-391 requires that debris or materials that become dislodged from the seacave infills through weathering and impair public access be removed from the beach by the applicant. Thus, it was clearly the understanding of the Commission when that CDP was approved, that the proposed design of the seacave infills would result in portions of the seacave infills segmenting off the existing infill as they extend past the face of the bluff and the resulting debris would then need to be removed from the beach. Third, the subject application proposes to expand the existing seacave infills, which as detailed, currently result in adverse impacts to public access through direct encroachment on the public beach. The proposed expansion of the existing seacave infills will extend the life of the existing seacave infills, which further necessitates that the project be designed such that impacts to public access are avoided.

In an email dated December 11, 2013, the applicant's engineer stated that removing the portion of existing infill "C" that protrudes approximately 7 feet seaward of the adjacent bluff would not destabilize the bluff. In addition, in the December 11, 2013 email, the applicant's engineer states the following in regards to the technical feasibility of removing of the concrete encroaching on the beach:

> *"…To address the practicality of actually removing the protruding Infill No. C, we have also attached information on a hydraulically powered, hand-operated, rotary percussion drill that could easily drill a series of 1½ inch holes through the 1991 concrete infill along any desired and possibly curvilinear line, say on 1 foot centers, that could then be relatively easily wedged off or hydraulically split with a chemical splitting compound like S-Mite, Dexpan, or RockFrac…"*

The applicant, however, opposes removal of the portion of existing infill "C" that is currently located on and interfering with public beach access. First, the applicant argues that the concrete encroaching on the beach provides 'geologic interest' to the shoreline as opposed to a natural planar seacliff. Second, the applicant contends that portions of the natural Torrey Sandstone bluff formation would need to be dislodged in order to remove the concrete infill. Third, the applicant argues that the long-term stability of the bluff may be reduced if the infill is removed due to the fact that the infill has halted bluff erosion and helps to prevent the clean sands lens in the bluff from becoming exposed. Fourth, the applicant provided the following rational for not removing the portion of existing fill "C" that is encroaching on public beach area seaward of the natural bluff:

> *"…the original deed restriction recorded against this property was a bargained-for exchange, i.e., Mr. Bannasch received the right to maintain the sea caves in exchange for giving up the right to apply for a seawall. At that time, it was expressly anticipated that the existing residence would have a 75 year life, 22 of which have expired. Any removal of the existing natural or artificial protection will unnecessarily constitute a breach of that bargain..."* (Email dated 12/13/2013 from the applicant's engineer)

The Coastal Act allows for the permitting of shoreline protective devices that alter the natural shoreline only to protect existing structures in danger from erosion and only when designed to eliminate or mitigate adverse impacts to the sand supply. Retention of the portion of existing infill "C" would unnecessarily adversely impact both the physical and aesthetic qualities of the natural bluff. A concrete structure on the beach is not aesthetically more appealing than the natural bluff. While some natural bluff material may be lost as a result of removal of the concrete, this material is likely equal to the material that would have been dislodged due to natural bluff erosion if the seacave infill was not installed or if the seacave infill was constructed as originally approved. Furthermore, the applicant has not submitted any geotechnical information to quantify the amount of natural bluff material that would be dislodged through removal of the encroaching portion of the infill. Based on review of photographs and site visits by Commission staff, it appears that the quantity of natural bluff material dislodged would be relatively small in relation to the amount concrete that would be removed from the public beach. Lastly, removal of the approximately 7 ft. of concrete infill will result in a level of bluff stability that is equal to the level of bluff stability that would have been achieved had the infill been constructed as approved by the Commission. The Commission's staff engineer and geologist have reviewed the site and supporting documentation and find that the portion of the existing seacave infill "C" seaward of the natural bluff can safely be removed at this time without destabilizing the coastal bluff.

Even if the applicant had constructed the seacave as approved by the Commission, his argument that the Commission may not require removal of infill "C" at this time, due to the "bargain" struck as part of the approval of CDP 6-91-081 is not correct. The applicant's contention that the property owner is entitled to a 75-year economic life for the bluff top residence is inaccurate. At the time that the bluff top residence was approved in 1991, the applicant provided the Commission with a geotechnical investigation indicating that the home would be safe for 75 years if located 25 feet from the bluff edge. However, the Commission had approved CDPs in the recent past in the neighboring city of Encinitas for similar bluff top development that made the same geologic claims and the property owners subsequently returned to request shoreline protection following bluff collapses (ref: CDP Nos. 6-87-678/Morton and 6-88-515/McAllister).

Given the bluff erosion events which were not foreseen by past geotechnical investigations and uncertainty associated with bluff stability and retreat rates, the Commission provided the applicant with two options. The first option was to set the home back 40 feet from the bluff edge in a location that would have a higher likelihood to be safe for 75 years. The second option was to set the home 29 feet back from the bluff

edge and waive any rights to future construction of shoreline protective structures to protect the home from erosion (other than seacave filling in the future/maintenance of approved seacave infills), to utilize a foundation design that could be removed in the event of endangerment, and to record a deed restriction acknowledging that the home would be removed when threatened by erosion. The applicant chose the second option and sited the home 29 feet back from the bluff edge. Thus, based on the Special Conditions and findings of CDP 6-91-081, the Commission did not anticipate a 75-year economic life for the subject bluff top residence when sited closer than 40 feet from the bluff edge, but it allowed the applicant to assume the risk of siting a home closer to the bluff edge, as long as he agreed to waive the right to shoreline protection and to move the house back if threatened by erosion.

To assure that infill "B" and the portion of infill "C" located seaward of the natural bluff are removed in a timely manner, Special Condition 11 has been attached to require the applicant to comply with all Special Conditions of approval within 90 days of Commission action or within such additional time granted by the Executive Director for good cause and to require that the applicant remove the infills encroaching seaward of the natural bluff within 60 days of issuance of this CDP or within such additional time granted by the Executive Director for good cause.

Special Conditions 2 and 3 ensure that regular monitoring will be conducted and that if any portion of an existing infill or the proposed infill expansions do not erode landward, as designed, and encroach onto the public beach, that the encroaching portions will be removed. These conditions are necessary to ensure that the seacave fills do not encroach onto the public beach in the future.

Requiring the maintenance of seacave/notch infills to remove material that is located greater than 6 inches seaward of the natural bluff face has been required by the Commission in previous applications. Although actual removal of seacave/notch infill material occurs rarely, it has been undertaken in the past. Directly adjacent to the south of the subject sites at 521 and 517 Pacific Avenue, the Commission approved an emergency CDP to infill 2 seacaves with erodible concrete (Ref: 6-97-165-G/Lucker and Wood). The work approved pursuant to the emergency CDP was completed. However, at the time that the applicants returned to the Commission to obtain a regular CDP, erosion on the site had resulted in a portion of each plug protruding beyond the bluff face onto the sandy beach. As part of the regular CDP, the applicant proposed to grind down the encroaching portion of the seacave infills with a hand grinder and bush hammer (6-97-165/Lucker and Wood). Through the CDP, the Commission required that the applicant restore the seacave plugs such that the plugs are flush with the face of the bluff.

As proposed, the erodible concrete seacave/notch infill expansions will erode landward and are not expected to impact public beach area in the future. With these conditions, adverse impacts to public access along the shoreline will be eliminated.

The City of Solana Beach owns the beach on the subject site. 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 8 acknowledges that the issuance of this permit does not waive the public rights that exist on the property.

The use of the beach or public parking areas for staging of construction materials and equipment also adversely impacts the public's ability to gain access to the beach. Special Condition 4 prohibits the applicant from storing vehicles on the beach overnight, using any public parking spaces within the Fletcher Cove Parking Lot for staging and storage of equipment, and prohibits washing or cleaning construction equipment on the beach or in the parking lot.

Special Condition 4 prohibits construction on the sandy beach during weekends and holidays between Memorial Day to Labor Day of any year. Except for minor exempt maintenance as defined by Section 13252 of the California Code of Regulations, any other work will require an amendment to this permit or a new coastal development permit (Special Condition 3).

Therefore, as conditioned, the Commission finds that the subject proposal will not result in any significant adverse impacts on beach access or public recreation consistent with Sections 30210, 30211, 30212.5, 30221, 30223 and 30252, pursuant to Section 30604(c) of the Coastal Act.

E. LOCAL COASTAL PLANNING

Section 30604(a) 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 Commission has recently approved the City's Local Coastal Program Land Use Plan. In addition, the Commission recently approved an amendment to the LUP to modify some of the key provisions relating primarily to bluff top development and shoreline protection, including policies related to erodible concrete seacave/notch infills. The recently approved LUP amendment, in part, found that erodible concrete seacave/notch infills are not subject to the sand supply mitigation, public access and recreation mitigation, encroachment removal agreement, or authorization timeline policies of the LUP. The construction of a seacave/notch infill will help to prevent catastrophic bluff failure, but will still allow the bluff to erode landward. Seacave/notch infills are designed to erode at the same rate as the adjacent natural bluff, thus there are no anticipated impacts to sand supply or to public access and recreation. Furthermore, since seacave/notch infills are designed to erode at the same rate as the natural bluff, if they function as designed, there will not be a need to physically remove the entire fill, and thus encroachment removal agreements and time limits for authorization are not needed. The Commission has not yet approved revised findings related to the LUP amendment and the City has not yet accepted the approved changes to the LUP. In addition, the City has not yet completed, nor has the Commission reviewed any implementing ordinances. Thus, the City's LCP is not certified.

The location of the proposed bluff retention device is designated for Open Space Recreation in the City of Solana Beach LUP. 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 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.

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

Section 13096 of the California Code of Regulations requires that a specific finding be made in conjunction with coastal development permit applications showing the application to be consistent with any applicable requirements of CEQA. Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect that the activity may have on the environment.

The Coastal Commission's review and analysis of land use proposals has been certified by the Secretary of Resources as being the functional equivalent of environmental review under CEQA. The preceding coastal development permit findings in this staff report have discussed the relevant coastal resource issues with the proposal, and the permit conditions identify appropriate mitigations to avoid and/or lessen any potential for adverse impacts to said resources. The Commission incorporates these findings as if set forth here in full.

As such, there are no additional feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse environmental effects which approval of the proposed project, as conditioned, would have on the environment within the meaning of CEQA. Thus, if so conditioned, the proposed project will not result in any significant environmental effects for which feasible mitigation measures have not been employed consistent with CEQA Section 21080.5(d)(2)(A).

(G:\San Diego\Reports\2013\6-13-0948 Bannasch Staff Report.docx)

APPENDIX A

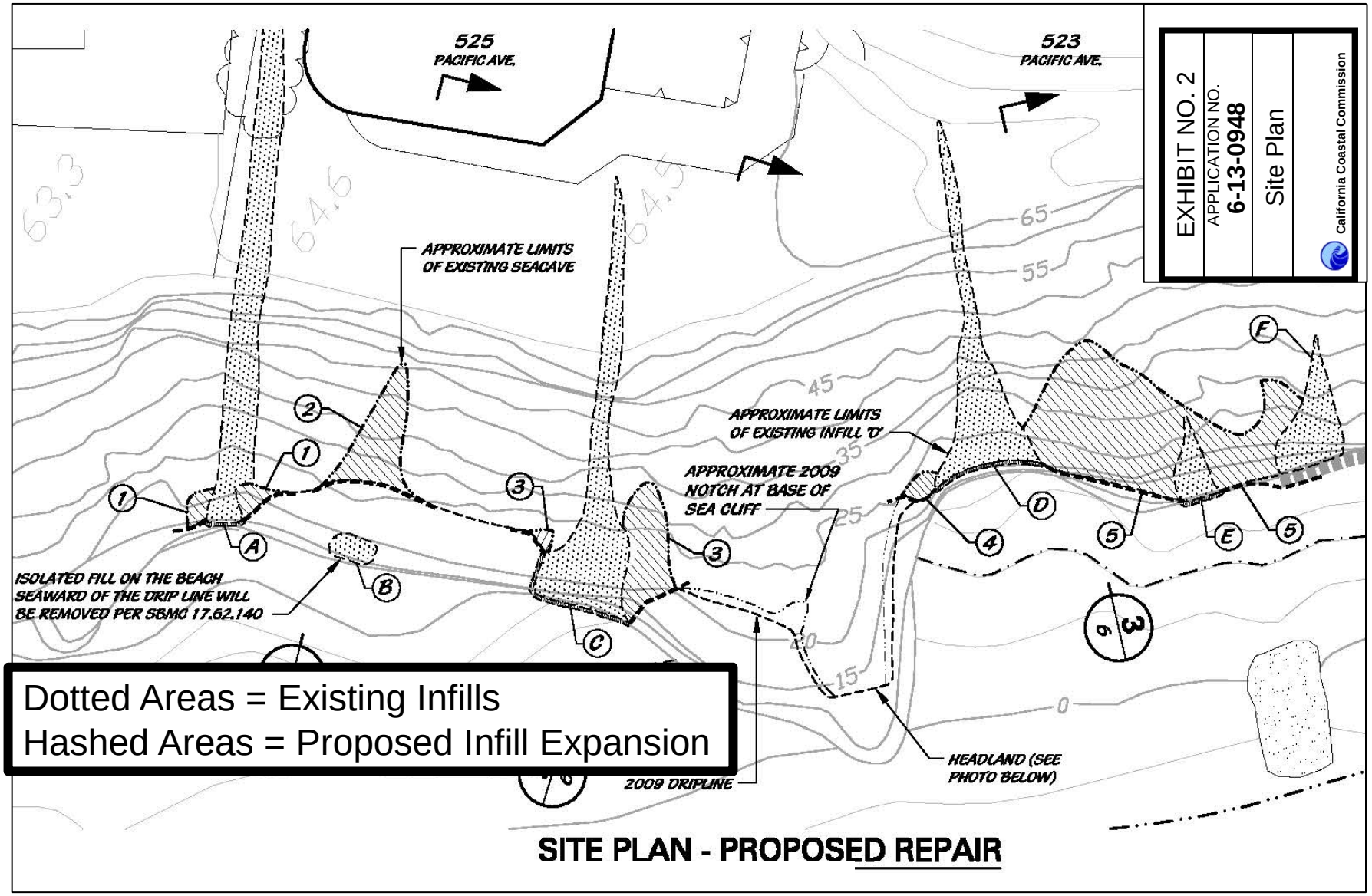
SUBSTANTIVE FILE DOCUMENTS

- City of Solana Beach certified LUP
- City of Solana Beach General Plan and Zoning Ordinance
- City of Solana Beach Resolution 2011-139 approved October 12, 2011
- Landscaping plans by David Reed Landscape Architects, dated January 10, 2014
- Project plans by Soil Engineering Construction, Inc., received January 31, 2014
- Bluff Face Stability and Cave Maintenance Investigation and Geologic Reconnaissance by Geotechnical Exploration, Inc., dated March 24, 2011 and revised July 26, 2011
- Coastal Erosion Study Sea-Cave/Notch Infill Geotechnical Report by TerraCosta Consulting Group, dated April 10, 2013
- CDP Nos.: 6-87-391/Childs, 6-91-081/Bannasch, 6-97-165-G/Lucker and Wood, 6-97-165/Lucker and Wood, 6-92-82/Victor; 6-96-102/Solana Beach & Tennis Club; 6-97-1646/Lingenfelder; 6-98-25/Stroben; 6-98-29/Bennett; 6-99-091/Beacker; 6-99-103/Coastal Preservation Association; 6-00-066/Pierce & Monroe
- LCPA #SOL-MAJ-1-13

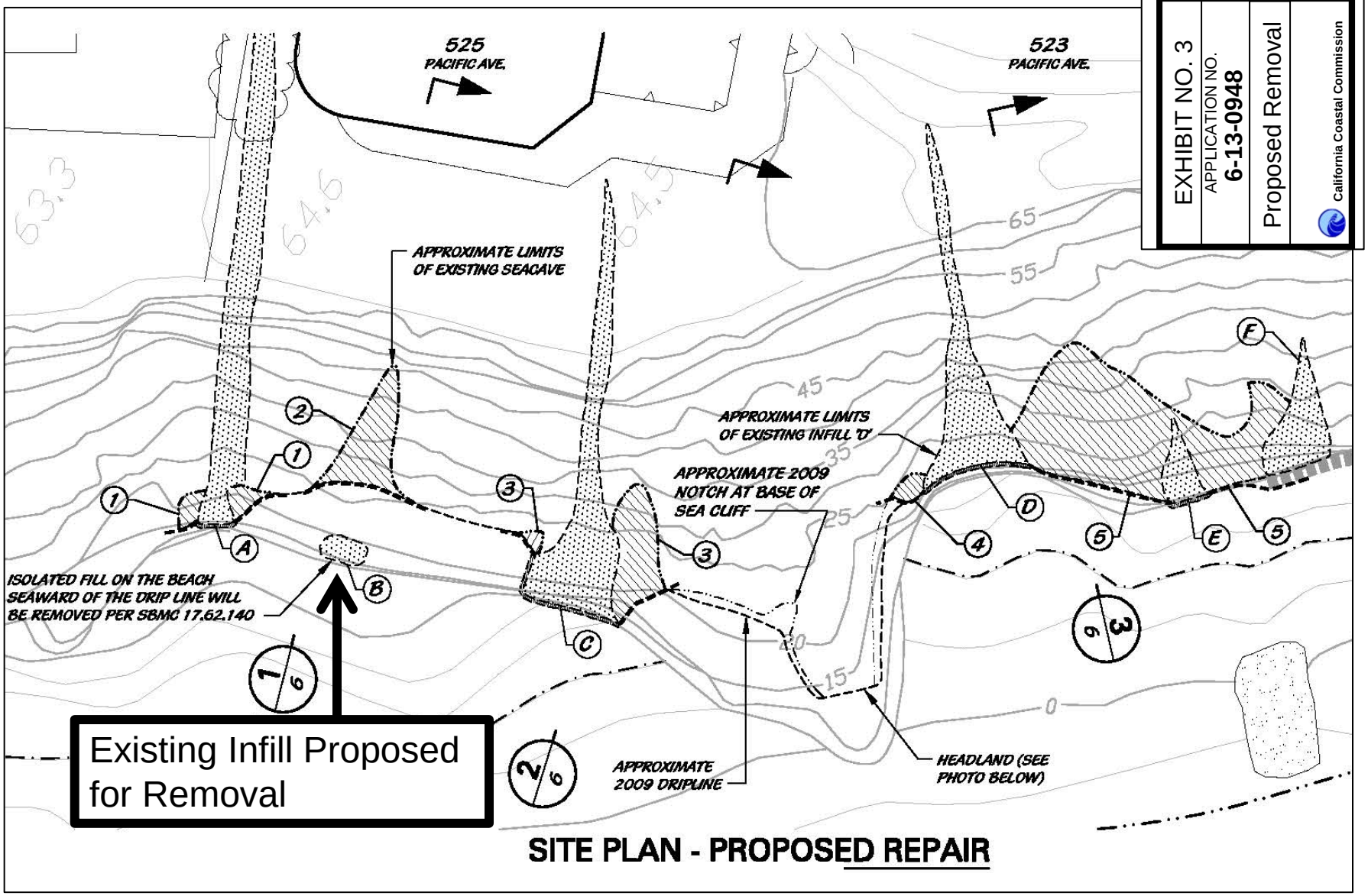
PROJECT LOCATION

EXHIBIT NO. 1
APPLICATION NO.
6-13-0948
Project Location
California Coastal Commission

PROPOSED SITE PLAN

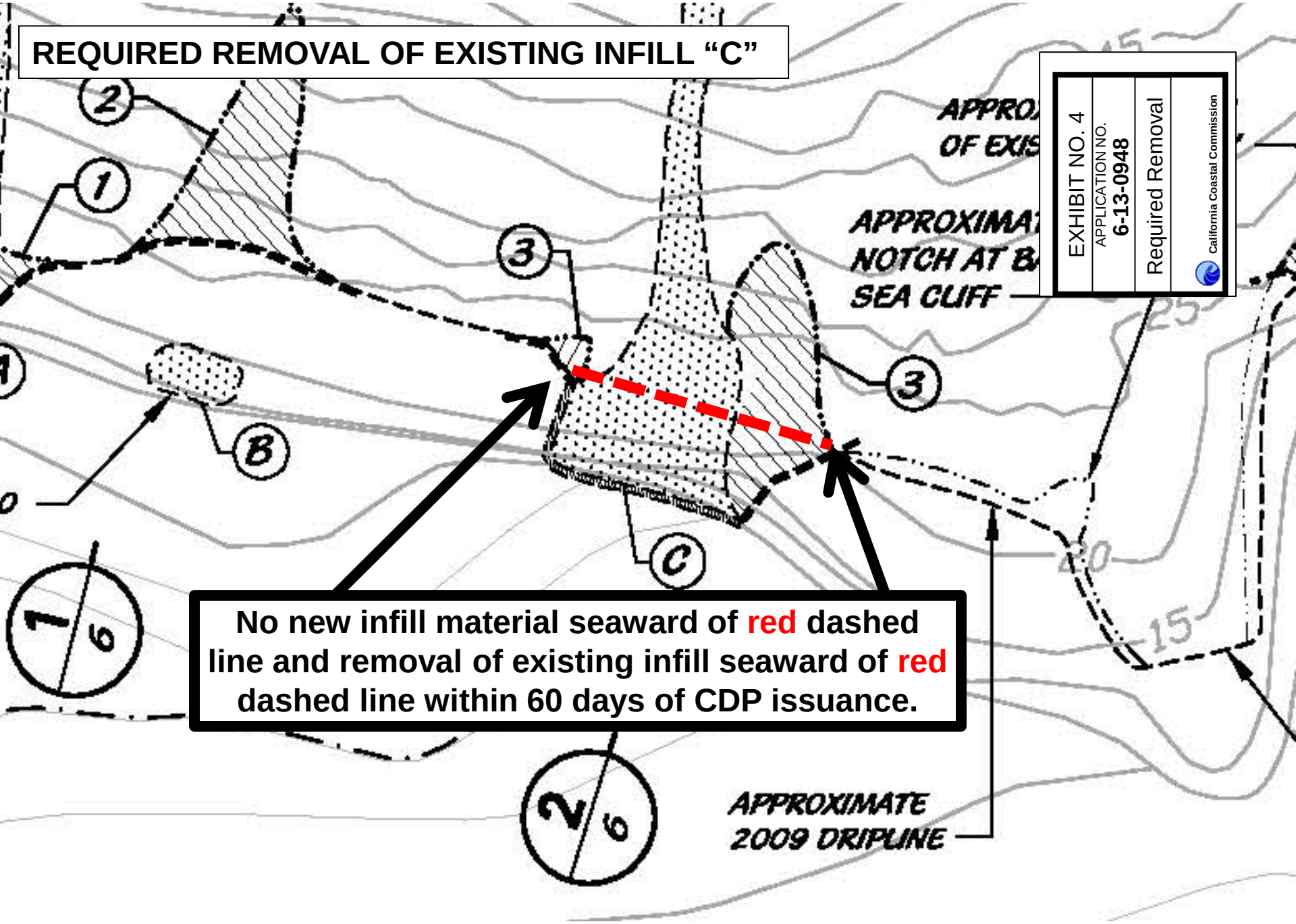


PROPOSED INFILL REMOVAL "B"



SITE PLAN - PROPOSED REPAIR

EXHIBIT NO. 3
APPLICATION NO.
6-13-0948
Proposed Removal
California Coastal Commission


REQUIRED REMOVAL OF EXISTING INFILL “C”
EXHIBIT NO. 4
APPLICATION NO.
6-13-0948
Required Removal
California Coastal Commission
APPROXIMATE NOTCH AT BASE OF SEA CLIFF
APPROXIMATE 2009 DRIPLINE
No new infill material seaward of red dashed line and removal of existing infill seaward of red dashed line within 60 days of CDP issuance.
1
2
3
B
C
1/6
2/6
25
20
15

INFILL “C” LOOKING NORTH

EXHIBIT NO. 5
APPLICATION NO.
6-13-0948
Jan 2014 Photo
California Coastal Commission

INFILL “C” LOOKING SOUTH

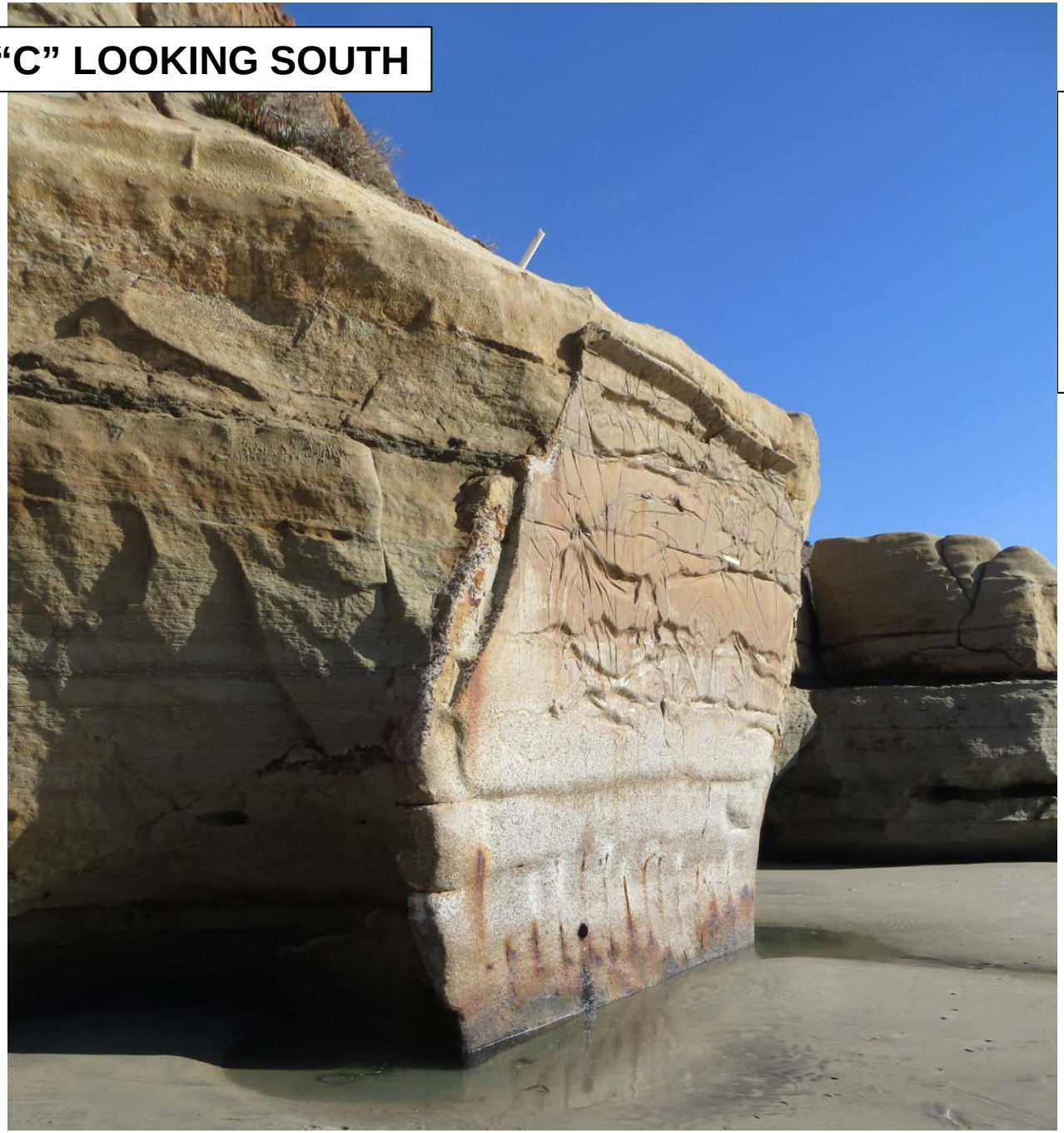


EXHIBIT NO. 6

APPLICATION NO.
6-13-0948

Jan 2014 Photo

California Coastal Commission

EXISTING INFILL RESURFACING

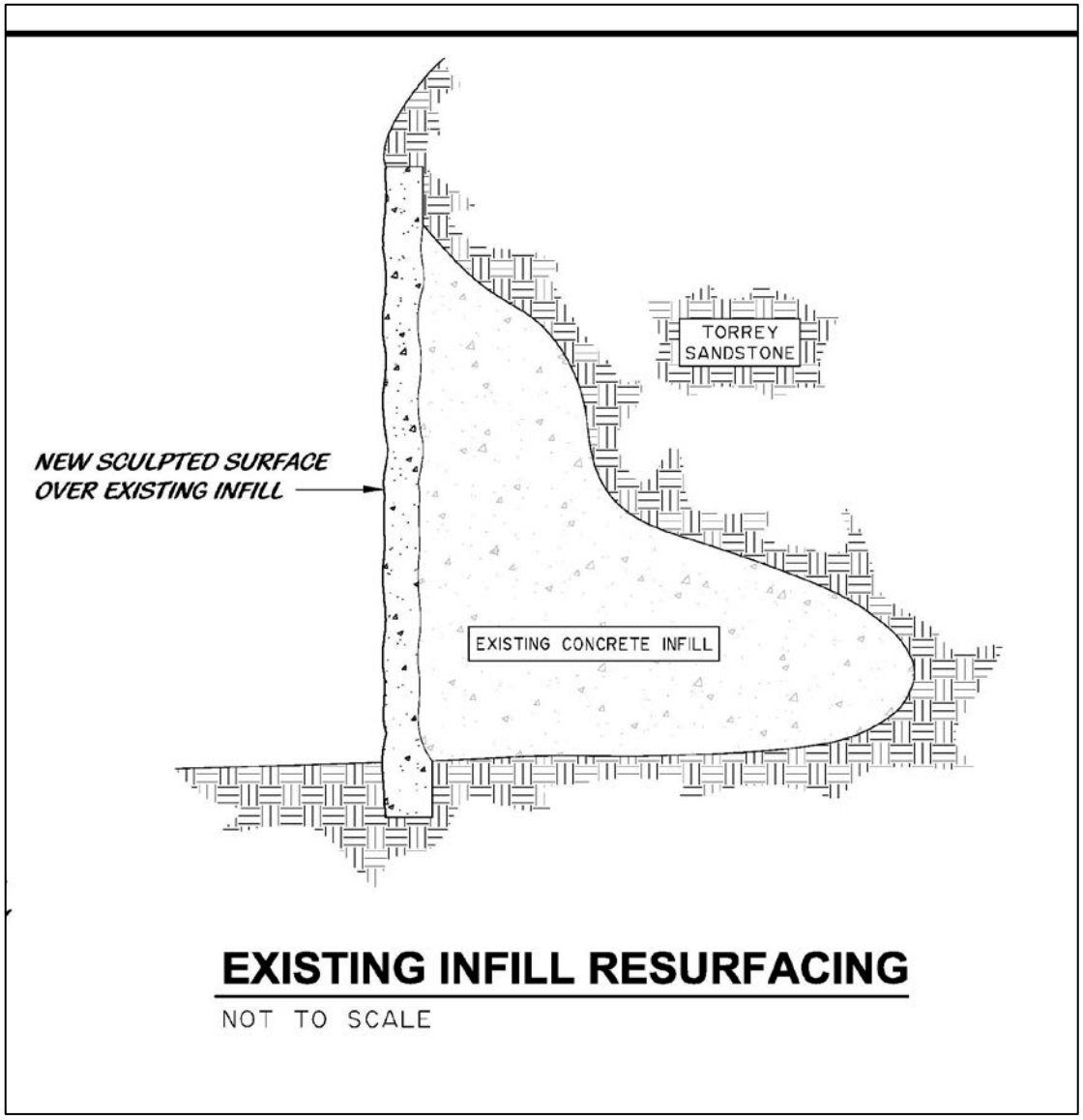
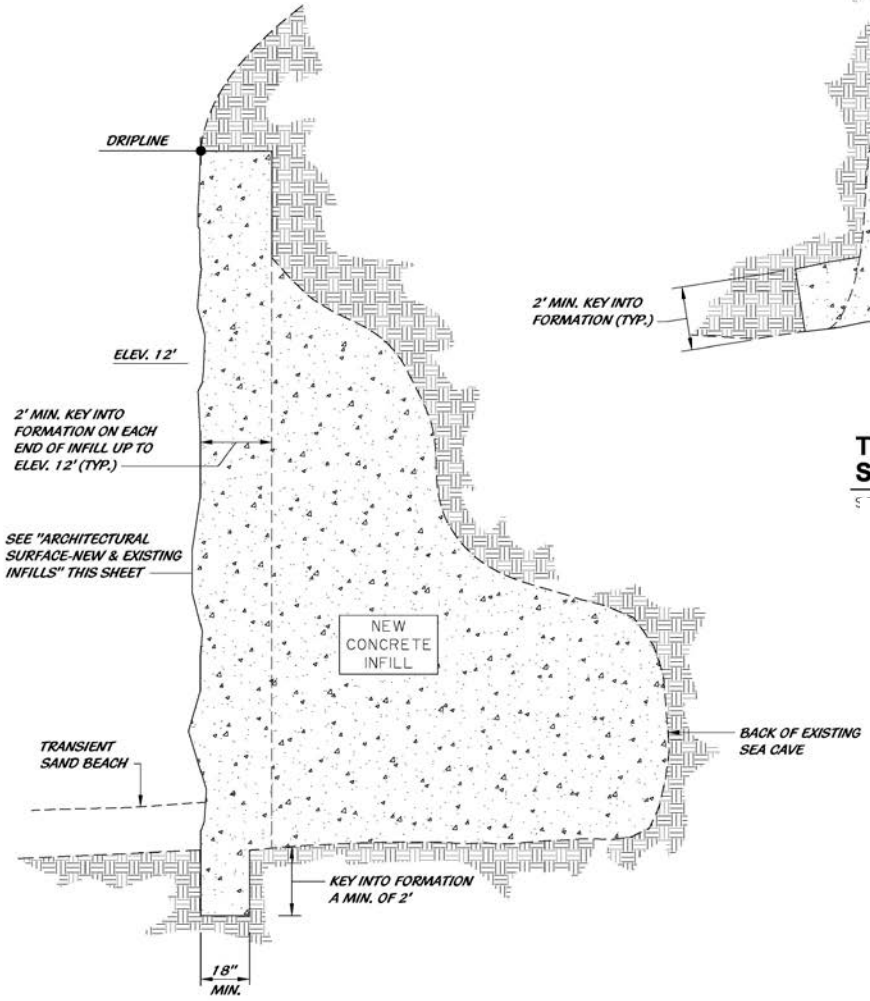
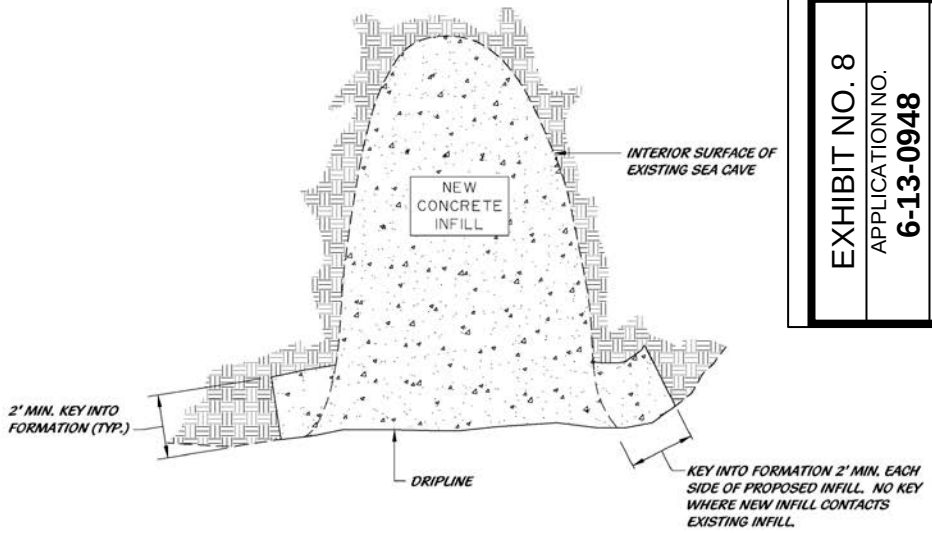


EXHIBIT NO. 7
APPLICATION NO.
6-13-0948
Resurfacing
California Coastal Commission

INFILL EXPANSION SECTION



TYPICAL VERTICAL SECTION THRU NEW INFILL



TYPICAL HORIZONTAL SECTION THRU INFILL

EXHIBIT NO. 8
APPLICATION NO.
6-13-0948
Infill Expansion
California Coastal Commission

CDP #6-87-391

E OF CALIFORNIA—THE RESOURCES AGENCY GEORGE DEUKMEJIAN, Governor

LIFORNIA COASTAL COMMISSION
DIEGO COAST DISTRICT
CAMINO DEL RIO SOUTH, SUITE 125
DIEGO, CA 92108-3520
297-9740

COASTAL DEVELOPMENT PERMIT NO. 6-87-391
Page 1 of 4

Permit is Suspended

FILE COPY

On August 28, 1987, the California Coastal Commission granted to Stephen A. Childs this permit for the development described below, subject to the attached Standard and Special Conditions.

Description: Filling of five sea caves at base of coastal bluff.

Site: 525 Pacific Avenue, Solana Beach, San Diego County. APN 263-041-03.

Issued on behalf of the California Coastal Commission by

PETER DOUGLAS
Executive Director
and

IMPORTANT: THIS PERMIT IS NOT VALID UNLESS AND UNTIL A COPY OF THE PERMIT WITH THE SIGNED ACKNOWLEDGEMENT HAS BEEN RETURNED TO THE COMMISSION OFFICE.

ACKNOWLEDGEMENT

The undersigned permittee acknowledges receipt of this permit and agrees to abide by all terms and conditions thereof.

Date Signature of Permittee

CDP Mailed 11/7/1988

STANDARD CONDITIONS:

1. Notice of Receipt and Acknowledgement. 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. Compliance. All development must occur in strict compliance with the proposal as set forth below. Any deviation from the approved plans must be reviewed and approved by the staff and may require Commission approval.

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

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

6. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

7. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

SPECIAL CONDITIONS:

1. Open Space Deed Restriction. Prior to the transmittal of the coastal development permit, the applicant shall record a restriction against the subject property, free of all prior liens and encumbrances, except for tax liens, and binding on the permittee's successors in interest and any subsequent purchasers of any portion of the real property. The restriction shall prohibit any alteration of landforms, removal of vegetation or the erection of structures of any type in the area shown on the attached Exhibit "3" without the written approval of the California Coastal Commission or its successor in interest. The recording document shall include legal descriptions of both the applicant's entire parcel(s) and the restricted area, and shall be in a form and content acceptable to the Executive Director. Evidence of recordation of such restriction shall be subject to the review and written approval of the Executive Director.

CDP #6-87-391 (CONT.)

SPECIAL CONDITIONS - continued:

2. Lateral Public Access. Prior to the transmittal of the coastal development permit, the landowner shall execute and record a document, in a form and content acceptable to the Executive Director, irrevocably offering to dedicate to a public agency or private association approved by the Executive Director an easement for lateral public access and passive recreational use along the shoreline. The document shall provide that the offer of dedication shall not be used or construed to allow anyone, prior to acceptance of the offer, to interfere with any rights of public access acquired through use which may exist on the property. Such easement shall be located along the entire width of the property from the mean high tide line to the toe of the existing bluff.

The document shall be recorded free of prior liens which the Executive Director determines may affect the interest being conveyed, and free of any other encumbrances which may affect said interest. The offer shall run with the land in favor of the People of the State of California, binding all successors and assignees, and shall be irrevocable for a period of 21 years, such period running from the date of recording. The recording document shall include legal descriptions of both the applicant's entire parcel(s) and the easement area.

3. Storm Design and Debris Removal. Prior to the transmittal of the coastal development permit, the applicant shall submit certification by a registered civil engineer that the proposed seacave filling is designed to withstand storms comparable to the winter storms of 1982-83. The applicant shall be responsible for the removal of debris that is deposited on the beach or in the water during construction of the shoreline protective device or as a result of the failure of the shoreline protective device.

4. Construction Materials. Disturbance to sand and intertidal areas shall be minimized. Beach sand excavated shall be redeposited on the beach. Local sand, cobbles or shoreline rocks shall not be used for backfill or construction material.

5. Applicant's Assumption of Risk. Prior to the transmittal of the coastal development permit, the applicant as landowner shall execute and record a deed restriction, in a form and content acceptable to the Executive Director, which shall provide: (a) that the applicant understands that the site may be subject to extraordinary hazard from waves during storms, from bluff erosion and from landslide potential, and the applicant assumes the liability from such hazards; and (b) that the applicant unconditionally waives any claim of liability on the part of the Commission and agrees to indemnify and hold harmless the Commission and its advisors relative to the Commission's approval of the project for any damage due to natural hazards. The document

SPECIAL CONDITIONS - continued:

shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens which the Executive Director determines may affect the interest being conveyed, and free of any other encumbrances which may affect said interest.

6. Color of Construction Materials. The face of the proposed construction materials shall be colored and textured to match the adjacent bluff material.

(7391P)

CDP #6-91-081

EXHIBIT NO. 10
APPLICATION NO. **6-13-0948**
CDP #6-91-081
California Coastal Commission

STATE OF CALIFORNIA—THE RESOURCES AGENCY PETE WILSON, Governor

CALIFORNIA COASTAL COMMISSION
SAN DIEGO COAST AREA
3111 CAMINO DEL RIO NORTH, SUITE 200
SAN DIEGO, CA 92108-1725
(619) 521-8036

COASTAL DEVELOPMENT PERMIT NO. 6-91-81
Page 1 of 6

On July 16, 1991, the California Coastal Commission granted to William S. Bannasch this permit for the development described below, subject to the attached Standard and Special Conditions.

Description: Demolition of an existing 3,332 sq. ft. two-story, single-family residence and construction of a 3,135 sq. ft. two-story, single-family residence; Boundary adjustment affecting two blufftop lots (Lot 1 = 7,913 sq. ft.; Lot 2 = 8,388 sq. ft.); Also, infilling of seacaves that have been previously plugged.

Lot Area	16,301 sq. ft.
Building Coverage	2,223 sq. ft. (14%)
Pavement Coverage	1,029 sq. ft. (6%)
Landscape Coverage	9,864 sq. ft. (60%)
Unimproved Area	3,185 sq. ft. (20%)
Parking Spaces	2
Zoning	RS-11
Plan Designation	Medium Residential 5-7 dua
Project Density	5.4 dua
Ht abv fin grade	25 feet

Site: 523 and 525 Pacific Avenue, Solana Beach, San Diego County. APN 263-041-20, 21

Issued on behalf of the California Coastal Commission by

PETER DOUGLAS
Executive Director
and

RECEIVED
SEP 6 1991
CALIFORNIA
COASTAL COMMISSION
SAN DIEGO COAST DISTRICT

COASTAL DEVELOPMENT PERMIT NO. 6-91-81
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IMPORTANT: THIS PERMIT IS NOT VALID UNLESS AND UNTIL A COPY OF THE PERMIT WITH THE SIGNED ACKNOWLEDGEMENT HAS BEEN RETURNED TO THE COMMISSION OFFICE.

ACKNOWLEDGEMENT

The undersigned permittee acknowledges receipt of this permit and agrees to abide by all terms and conditions thereof.

9-5-91
Date

Signature of Permittee

STANDARD CONDITIONS:

1. Notice of Receipt and Acknowledgement. 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. Compliance. All development must occur in strict compliance with the proposal as set forth below. Any deviation from the approved plans must be reviewed and approved by the staff and may require Commission approval.

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

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

6. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

7. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

CDP #6-91-081 (CONT.)

SPECIAL CONDITIONS:

The permit is subject to the following conditions:

1. Revised Plans. Prior to issuance of the coastal development permit, the applicant shall submit to the Executive Director for review and written approval, revised site, building foundation, drainage and grading plans, approved by the City of Solana Beach. The plans shall incorporate the following:

a. Said plans shall comply with all recommendations contained in the geotechnical report for the project, by Catlin Engineering, Inc. dated February 20, 1991 and March 29, 2991.

b. Plans shall indicate that all drainage from the roof and impervious surfaces shall be collected and directed away from the face of the bluff towards the street.

c. Said plans shall reflect compliance with one of the following two options:

1. Revised site plan indicating a minimum 40 foot setback for all portions of the principal residence from the edge of the bluff, as shown on the submitted site plan dated February 27, 1991.

or

2. Provision of a minimum 29 foot setback for the principal residence from the bluff edge, as submitted, utilizing a foundation design to be reviewed and approved in writing by the Executive Director, and recordation of a deed restriction pursuant to Special Condition #2 below.

2. The following is required only if option 1c(2) (see Special Condition #1 above) is chosen by the applicant. Prior to the issuance of the coastal development permit, the applicant shall record a deed restriction in a form and content acceptable to the Executive Director, which shall provide the following:

a. That the landowner not construct any upper or lower bluff stabilization devices, other than the necessary filling of seacaves in the future and the seacave filling approved pursuant to CDP #6-91-81 and any maintenance that may be necessary for these infilled seacaves in the future, to protect the subject single-family residence and/or accessory structures in the event that these structures are subject to damage from erosion, storm wave damage, or other natural hazards in the future.

b. That in the event the edge of the bluff erodes to within 10 feet of the principal residence permitted herein, the landowner shall be responsible for the removal of the principal residence, unless, based on a geotechnical investigation prepared by a licensed coastal engineer and

SPECIAL CONDITIONS, continued:

geologist, alternative methods are identified for the stabilization of the principal residence, which would obviate the need for complete removal of the residence at that time. The report shall make recommendations for any immediate or potential future alternative measures necessary or desired to stabilize the principal residence, including removal of a portion of the residence or relocation of the residence on-site.

c. Upon completion of the geotechnical investigation, the landowner shall submit a coastal development permit application for any measures identified through the report as necessary to achieve stabilization at that time. If no remedial measures are identified as being required and the landowner does not wish to pursue removal or relocation of the principal residence at that time, the landowner shall be responsible for remedial measures in a timely manner in the future, based upon projections in the submitted report.

d. In no case shall erosion be allowed to proceed to a point in which the herein permitted principal residence, or the residence as modified pursuant to any subsequent coastal development permits, shall be rendered unsafe for occupancy as determined by a geotechnical report and/or the City of Solana Beach. At that time, a coastal development permit application shall be required from the landowner for the removal of that portion of the residence which has been determined to be unsafe. Should, at any time in the future, further bluff erosion render the residence unsafe for occupancy, as determined by a geotechnical report, the City of Solana Beach and the Commission, then a coastal development permit application shall be submitted by the landowner for the removal of the residence in its entirety.

The document shall only apply to the northern most lot (lot 1) as adjusted in the herein approved boundary adjustment and shall run with the land, bind all successors and assigns, and shall be recorded free of all prior liens and encumbrances, except for tax liens.

3. Assumption Of Risk. Prior to the issuance of the coastal development permit, the applicant [and landowner] shall execute and record a deed restriction, in a form and content acceptable to the Executive Director, which shall provide: (a) that the applicant understands that the site may be subject to extraordinary hazard from bluff retreat and erosion, and the (b) applicant hereby waives any future claims of liability against the Commission or its successors in interest for damage from such hazards. The document shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens and any other encumbrances which the Executive Director determines may affect the interest being conveyed.

4. Future Development. Prior to the issuance of the coastal development permit, the applicant shall execute and record a document, in a form and content acceptable to the Executive Director, stating that the subject permit

CDP #6-91-081 (CONT.)

SPECIAL CONDITIONS, continued:

is only for the developments described in coastal development permit No. 6-91-81; and that any future additions or improvements to the exterior walls or foundation of the existing residence; or other development as defined in Public Resources Code Section 30106 will require an amendment to this permit or will require an additional coastal development permit from the California Coastal Commission or from its successor agency. The document shall be recorded as a covenant running with the land binding all successors and assigns in interest to the subject property.

5. Final Landscape Plans. Prior to the issuance of the coastal development permit, the applicant shall submit a detailed landscape plan indicating the type, size, extent and location of all plant materials, the proposed irrigation system and other landscape features. Drought and salt tolerant plant materials shall be utilized to the maximum extent feasible. No permanent irrigation systems shall be installed within 40 feet of the bluff edge. No accessory structures or landscaping shall be located within five feet of the bluff edge. Said plan shall be submitted to, reviewed and approved in writing by the Executive Director.

6. Seacave Filling. Prior to the issuance of the coastal development permit, the applicant shall submit final plans, approved by the City which incorporate the following:

a. A map of the location of the existing plugged seacaves.

b. No equipment shall be allowed within 16 feet of the edge of the bluff.

c. Prior to the commencement of construction of the seacave infilling, the applicant shall submit plans that map the location of the holes to be drilled.

d. In the event the seacave filling can not be reasonably accomplished from the top, infilling may occur from the beach. In this case, alternative plans, approved by the City, shall be submitted for review and written approval of the Executive Director.

7. Maintenance Activities. The property owner shall be responsible for the maintenance of the permitted seacave filling. Any debris or materials which become dislodged after completion through weathering and impair public access shall be removed from the beach. Any future maintenance of the infilled seacaves, including the infilling of seacaves in the future, may require a coastal development permit. If maintenance is required, the permittee shall contact the Commission office to determine whether permits are necessary.

SPECIAL CONDITIONS, continued:

8. Staging Areas/Timing. Prior to issuance of the coastal development permit, the applicant shall submit for review and written approval by the Executive Director, a plan identifying any staging areas for construction materials and equipment, as well as access routes to be used for the infilling of the seacaves. The applicant shall also identify equipment to be used and the methods to be employed. No public parking areas, including on-street parking, or any beach area may be utilized for the interim or overnight storage of construction equipment or materials. Disturbance to sand and intertidal areas shall be minimized and any beach sand excavated, shall be redeposited on the beach. Said plans shall indicate that no construction activities shall take place on the beach during the summer months (Memorial Day through Labor Day of any year).

(1081P)