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Application No.: 6-00-35

Applicant: Keith Presnell
Donald Ratowski

Description: Filling an approximately 70-foot long stretch of notch/undercut area at the base of a coastal bluff on public beach below two blufftop residences with a colored and textured erodible concrete mixture. Fill will be a maximum of 17 feet high and a maximum 8 feet deep. Also proposed is the payment of an in-lieu mitigation fee for beach sand replenishment.

Site: Public beach and bluff face below 245 and 249 Pacific Avenue, Solana Beach, San Diego County. APN 263-312-10, 11

Substantive File Documents: City of Solana Beach General Plan and Zoning Ordinance; City of Solana Beach Director Use Permit (DUP) 17-00-03; “Geotechnical Investigation and Project Analysis Notch Infill 245 & 249 Pacific Avenue” by Group Delta Consultants dated July 18, 2000; “Additional Supporting Material Notch Infill 245 & 249 Pacific Avenue” by Group Delta Consultants dated September 26, 2000; Letter from Skelly Engineering dated January 17, 2000; Coastal Development Permits 6-99-100, 6-99-103, #6-96-21.

STAFF NOTES:

Summary of Staff’s Preliminary Recommendation: Due to the Permit Streamlining Act, the Commission must act on the subject request at its February meeting. The application had previously been scheduled for Commission review during December of 2000. The applicants, however, requested a continuance to respond to the staff recommendation and requested a 90 extension of the 180-day Permit Streamlining Act requirements. Because
the applicant's response did not arrive until after the January 2001 Commission hearing, the final date for Commission action is the February 2001 Commission hearing.

Staff is recommending denial of the proposed notch infill proposed as a preemptive protection measure because the fill is not required to protect the existing structures at the top of the bluff and will result in inconsistencies with Chapter 3 policies of the Coastal Act related to alteration of natural landforms along bluffs and cliffs, public access and visual resources. In addition, the applicant and the City have not reviewed the subject proposal in the context of a comprehensive plan addressing shoreline erosion problems in the City.

I. PRELIMINARY STAFF RECOMMENDATION:

The staff recommends the Commission adopt the following resolution:

MOTION: I move that the Commission approve Coastal Development Permit No. 6-00-35 for the development proposed by the applicant.

STAFF RECOMMENDATION OF DENIAL:

Staff recommends a NO vote. Failure of this motion will result in denial 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 TO DENY THE PERMIT:

The Commission hereby denies a coastal development permit for the proposed development on the grounds that the development will not conform with the policies of Chapter 3 of the Coastal Act and will 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 would not comply with the California Environmental Quality Act because there are feasible mitigation measures or alternatives that would substantially lessen the significant adverse impacts of the development on the environment.

II. Findings and Declarations.

The Commission finds and declares as follows:

1. Detailed Project Description. The proposed project involves filling a 70-foot long notch/undercut area at the base of an 80-foot high coastal bluff below two single-
family residences in the City of Solana Beach. The fill would range from 11 to 17 feet in height and is approximately 3 1/2 to 8 feet in depth and would be designed to connect to an existing approximately 352 foot-long seawall located adjacent to the north of the subject site. The proposed notch/undercut fill would consist of a colored and textured erodible mixture designed to match the natural appearance of the surrounding bluffs and to erode at the same rate as the bluffs. The applicants are also proposing a monitoring plan to evaluate the performance and appearance of the notch infills over time and have offered to pay an in-lieu fee of $16,984 to purchase sand to mitigate the loss of sand to the beach which would likely occur as a result of the project.

The sea cliff and bluff on the south side of the subject site - for a distance of two lots - remains natural without any form of shoreline protection devices. However, two lots south of the subject site, an approximately 400 foot-long stretch of shoreline has had seacave/notch overhangs filled within the last year in a manner similar to the proposed development. In addition, the seawall adjacent and north was also constructed within the last year and was designed to protect eight properties including the northern portion of one of the subject lots (249 Pacific/Presnell; see Exhibit #2). Therefore, the residence at 249 Pacific is already afforded some protection.

The filled area would begin approximately 800 feet north of Fletcher Cove in the City of Solana Beach. All of the bluffs and beach at the project site are in public ownership. The City through its issuance of a Director's Use Permit (17-00-03 DUP) has authorized the applicants to perform the subject development. Access to the site would be from the Fletcher Cove access ramp.

The City of Solana Beach does not yet have a certified LCP, and the project site is located in an area of the Commission's original jurisdiction. Therefore, the Chapter 3 policies of the Coastal Act are the standard of review.

2. Permit History. The proposed development involves the construction of notch fills below two single-family residences at 245 and 249 Pacific Avenue in Solana Beach. In May of 1996 the Commission approved the development of an approximately 3,951 sq. ft. single-family residence at 245 Pacific Avenue (CDP #6-96-21/Ratowski). As a condition of approval, the Commission allowed the applicant the option of constructing either 40 feet back from the edge of the bluff or constructing 25 feet back from the edge of the bluff. If the applicant chose to construct 25 feet from the edge of the bluff, then the applicant would be required to waive all future rights to construct lower or upper bluff stabilization devices ("other than 'preemptive' filling of seacaves at the base of the bluff as approved through a coastal development permit") to protect portions of the residence seaward of the 40 foot blufftop setback line. The applicant chose to construct 25 feet from the edge of the bluff and recorded a deed restriction waiving all rights to future protection for the threatened sections seaward of the 40 foot setback line. In addition, the permit required that the foundation for the structure be designed to facilitate the removal of portions of the home or the entire home if the home is threatened in the future if other non-shoreline remedial measures proved ineffective (see CDP #6-96-21, Exhibit #1).
In August of 1999, the Commission approved the construction of an approximately 352 foot-long, 35 foot-high seawall at the base of the bluff below eight residential homes, one of which included the subject residence at 249 Pacific Avenue (ref. CDP #6-99-100/Presnell, et.al). However, the seawall which commences below 249 Pacific Avenue and extends north, only extends approximately one-half the length of the property below the residence. The subject request involves the infill of the remaining unprotected area below 249 Pacific Avenue. The residence itself was constructed prior to enactment of the Coastal Act and there do not appear to be any permit requests for development at the top of the bluff since enactment of the Coastal Act.

The Commission recently reviewed a request similar to the subject development for the fill of notches and fill of a sea cave beneath two residences approximately 500 south of the subject site (ref. CDP 6-00-66/Pierce/Monroe). The Commission determined in that case the homes were threatened by what appeared to be the imminent collapse of the sea cave. However, the Commission determined that the fill of the notch overhang approximately 50 feet in length was requested as simply a preemptive measure and was not required to protect the existing residences. The Commission approved the fill of the sea cave and denied the request to infill the notch with erodible concrete.

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

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

In addition, Section 30253 of the Coastal Act states, in part:

New development shall:

(1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.

(2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs...

The proposed project involves filling a 70-foot long notch/undercut area on the public beach at the base of the publicly-owned bluffs below two existing single-family residences. The applicant's geotechnical report identifies that the residence at 245 Pacific lies approximately 27 feet from the edge of the bluff and the residence at 249 Pacific lies approximately 24 feet from the bluff's edge. (As noted previously, the Commission approved development at 245 Pacific Avenue in 1996 permitting the
The proposed fill would range from 11 to 17 feet in height and from 3 1/2 to 8 feet in depth and would consist of an erodible mixture designed to erode at the same rate as the surrounding bluffs.

An approximately 352 foot-long, approximately 35 foot-high seawall lies on the immediate north side of the subject site. The seawall was designed to protect eight single-family residences located on the top of the bluff including one of the subject properties at 249 Pacific Avenue. The south end of the seawall lies below 249 Pacific Avenue for approximately half the width of the property and, therefore, currently affords significant protection to the blufftop residence. Its design included a feathering feature on its ends to eliminate or mitigate any scouring effects that may occur to surrounding unprotected bluffs. On the south side of the proposed project site are two lots which do not contain any shoreline protective devices but have notch/undercuts similar to the subject site. Immediately south of these two unprotected lots, is an approximately 400-foot long seacave/undercut area that has been filled with erodible material similar to what is proposed by the applicant. Both the seawall and seacave/undercut fills were permitted by the Commission (CDP #6-99-100/Presnell, et al. and 6-99-103/Coastal Preservation Assoc.). The proposed development, if approved, would only partially fill the gap between the approved seawall and undercut fill areas.

Coastal Act Section 30235 acknowledges that seawalls, revetments, cliff retaining walls, groins and other such structural or “hard” solutions alter natural shoreline processes. Thus, such devices are required to be approved only when necessary to protect existing structures. In this particular case, the applicant’s engineer has documented that there is “no immediate threat to these bluff-top residences.” As characterized by the geotechnical information submitted by the applicants, the project is proposed as a “preventative measure to slow down bluff erosion and mitigate ‘end effect’ exacerbation of bluff erosion as a result of the new construction of a high seawall on a portion of 249 Pacific Avenue” (letter from Skelly Engineering dated January 17, 2000). In addition, “[i]t is intended to minimize risk to the beach-going public and to protect against sea-cliff collapses and subsequent loss of support and progressive upper-bluff failures, such as has occurred a short distance to the north (261 Pacific)” (Geotechnical Investigation and Project Analysis Notch Infill 245 & 249 Pacific Avenue, by Group Delta Consultants, July 18, 2000).

However, the geotechnical report also indicates that should the subject notch/undercuts collapse, exposing a layering of clean sands lying within the bluff, the resulting accelerated upper-bluff failure could threaten the residences. The report also identifies that this stretch of shoreline in Solana Beach has experienced extensive blockfalls since the 1997-98 El Nino storms resulting from the collapse of overhangs. In early 1998 a large section of the bluff collapsed that encroached approximately 26 feet on the bluff below 249 Pacific Avenue, one of the subject sites. In August 1999, the Commission approved construction of the previously mentioned seawall to protect the residences that were threatened by this 352 foot-long collapse (CDP #6-99-100/Presnell, et al.). At the time of the Commission approval of the seawall, the applicant’s engineer performed a
slope stability analysis for the bluffs immediately north of the subject site and determined that the computed factor of safety was less than 1.25 (the point at which a slope is considered susceptible to sloughage or collapse) with upper-bluff failures likely to occur within the near future. The engineer also documented continual bluff collapse occurring following the 1998 major collapse on the order of one cubic yard, or approximately 3,000 pounds, daily. In addition, along with this continuing sloughage, the applicant's engineer documented the presence of a 10 foot wide layer of "clean sands" located between the lower bluff and the residences such that the continued bluff collapse could trigger a sliding sloughage of the area containing the clean sands leading to an immediate threat to the residences.

In contrast, the geotechnical report for the subject development, while identifying the presence of a clean sands layer within the bluff, has not identified ongoing daily erosion on the magnitude as previously described and has not identified the residences as being immediately threatened. In other words, while the subject site and surrounding area is experiencing erosion, the erosion has not progressed to the point where the existing blufftop residential structures are currently threatened. Therefore, since the residences are not currently threatened, the Commission is not required to approve the notch/undercut infill under Section 30235 of the Coastal Act.

Impacts to Coastal Resources from Shoreline Protection

Construction of seawalls and/or other forms of shoreline protection can result in significant adverse impacts to public resources, including loss of the public sandy beach area displaced by the structure, "permanently" fixing the back of the beach, which leads to the narrowing and eventual disappearance of the beach in front of the structure, and a reduction or elimination of sand contribution to the beach from the bluff. Other impacts of seawalls include sand loss from the beach due to wave reflection and scour, accelerated erosion on adjacent unprotected properties and the adverse visual impacts associated with construction of shore/bluff protective device on the contrasting natural bluffs.

The natural shoreline processes referenced in Section 30235, such as the formation and retention of sandy beaches, can be significantly altered by construction of a seawall, since bluff retreat is one of several ways that beach area and beach quality sand is added to the shoreline. This retreat is a natural process resulting from many different factors such as erosion by wave action causing cave formation, enlargement and eventual collapse, saturation of the bluff soil from ground water causing the bluff to slough off and natural bluff deterioration. When a seawall is constructed on the beach at the toe of the bluff, it directly impedes these natural processes.

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

Loss of beach material and loss of beach area are two separate concerns. A beach is the result of both sandy material and a physical area between the water and the back beach. Thus, beach area is not simply a factor of the quantity of sandy beach material. In Solana Beach, the shoreline is a shallow bedrock layer covered by a thin veneer of sand. The bedrock layer provides an area for collection of sandy material. The sand material is important to the overall beach experience, but even without the sand, the bedrock layer provides an area for coastal access between the coastal bluff and the ocean.

Filling seacaves or notches have some, but not all, of the same impacts as seawalls. Like a seawall, seacave fill adversely impacts shoreline processes in that by reducing the risk of bluff collapse, the sandy material of the bluff does not contribute to the beach as it eventually would if the site were left unprotected and the bluffs allowed to erode naturally. Thus, by reducing beach nourishment material, filling of seacaves or notched areas does adversely impact beach access and recreation, although to a lesser degree than a seawall. Similarly, although notch filling with an erodible concrete does not permanently fix the back beach, by reducing the risk of bluff collapse, it slows the landward movement of the back beach location. Seacave plugs or notch fills tend to be smaller in height and width and thus less visually obtrusive than seawalls; however, they do alter the natural landform of the bluffs, and, if not carefully constructed and monitored, can be very conspicuous.

Unlike a seawall, however, seacave and notch fills are generally set into the bluff face and do not take up a portion of the beach seaward of the bluff face that would otherwise be available for public use. Because such structures are set within the bluff, the accelerated erosion from increased wave reflection and "edge effects" to adjacent properties associated with seawalls are reduced or avoided. Further, notch fills do not prevent the erosion of bluff face material onto the beach via subaerial erosion since they do not cover any portion of the upper bluff as a seawall or upper bluff work would. In the past, seacaves and notches have been typically filled with a concrete material that did permanently fix the back of beach, similar to a seawall. However, in the last several years, most fill projects have been approved using a "lean" concrete mixture designed to erode at approximately the same rate as the surrounding bluffs. Thus, if, in fact, the notch fill erodes at the same rate as the adjacent surrounding bluffs, the back of the beach is not permanently fixed.

Based on the above discussion, the proposed notch fill project would have impacts on shoreline sand supply, but less of an impact than a seawall. The fill would not permanently fix the back beach or prevent sand contribution from the bluff. However, the purpose of the project is to significantly slow the process of bluff collapse and retreat, which delays that portion of sand contribution from the bluff, and slows the landward
movement of the back beach. The supply of sand in this area is limited and, therefore, any loss can be considered significant. Since the proposed fill has not been identified as necessary to protect existing development, the proposed development which will further diminish the supply of sand in the area is inconsistent with Section 30235 of the Coastal Act.

Alternatives.

The geotechnical report and a subsequent follow-up letter for the subject development has examined a series of project alternatives including underpinning of the residences, removal or relocation of the residences and chemical grouting of the “clean sands” layer. The report and letter identifies that underpinning and, perhaps, relocation of the homes are available alternatives.

Relocation or Removal of Residences. The geotechnical report identifies that the residence at 245 Pacific (which was permitted by CDP #6-96-21) is located 2 feet westerly of the street right-of-way line and the residence at 249 Pacific is located 6 feet westerly of the right-of-way. The report states that “[w]hile it may be physically possible to demolish and reconstruct either of the existing structures at a greater distance from the bluff top, along the westerly side of Pacific Avenue, the main impediment to this is the narrow distance between the bluff top and the westerly right-of-way line of Pacific Avenue.” Thus, while it may not be possible to relocate the entire home landward of its current location, it may be possible to remove seaward portions of the homes that may be threatened. As previously discussed, the residence at 245 Pacific Avenue received a coastal development permit from the Commission in 1996 for its construction with a special condition requiring that the foundations of the residence be designed to “facilitate” the removal of threatened portions of the home (see Exhibit #6). The applicant at 245 Pacific Avenue recorded a deed restriction against the property waiving all rights to construct upper and lower stabilization devices to protect any portion of the residence located seaward of the 40 foot blufftop setback line that existed in 1996. (The waiver did, however, allow the applicant to request preemptive measures such as the fill of a seacave which would be similar to the subject request.) In addition, the deed restriction acknowledged that if portions of the residence seaward of the 40-foot blufftop setback line were unsafe for occupancy, the landowner would remove those threatened portions. However, the geotechnical report did not address the removal of portions of the structure at 245 Pacific Avenue seaward of the previously determined 40-foot setback line. In addition, the report did not examine the alternative of smaller homes on the subject lots. Instead the analysis examined the difficulty of reducing the street right-of-way in order to relocate the existing residences.

Underpinnings. A follow-up letter to the geotechnical report from the applicant’s engineer (“Additional Supporting Material” from Group Delta Consultants, dated September 26, 2000) identifies that underpinning of the residential structures technically “may be a feasible alternative to protect the bluff-top improvements.” The letter does not
provide details of the underpinning alternative, but instead emphasizes that underpinning of the residences will not prevent the collapse of the existing overhang. The letter contends that notch/undercut fill will reduce coastal bluff erosion and protect the beach-going public from the threat of collapse.

Chemical Grouting of the Clean Sands. As previously described, the subject bluff contains a layer of clean sands estimated to be approximately 10 feet in height which, if exposed as result of lower bluff collapse that triggers upper bluff failures, could result in an immediate threat to the residences at the top of the bluff. The applicant’s engineer has examined the alternative of applying chemical grouting on the area containing the layer of clean sands and has concluded that this alternative is not feasible. The letter details 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 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, the applicant’s engineer contends that the technology does not exist at this time to stabilize the coastal bluff with chemicals in place of shoreline protection.

As previously described, the existing two residences at the top of the bluff are not currently threatened and, under Section 30235, the Commission is not required to approve a shoreline protective device. The applicant is proposing fill of the 70 foot-long notch/undercut area as a preventive measure to protect the beach-going public from the threat of collapse and to reduce the likelihood of upper bluff failures that could threaten the residences in the future. The applicant’s geotechnical report and subsequent letter indicates that underpinning of the residences or relocation of the residences may be alternatives to the proposed notch/undercut fill in terms of protecting the existing development. Since the proposed development is not required to be approved, will result in the loss to sand supply and there may be less environmentally damaging alternatives, the Commission finds the proposed development to be inconsistent with Section 30235 and 30253 of the Coastal Act.

4. 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...

The beaches and bluffs along the Solana Beach shoreline are a natural resource. Structures on the face of the bluffs, no matter how “natural” their appearance, deter and detract from the natural beauty and scenic resources of the bluffs and shoreline. The
The proposed development is located on the face of a coastal bluff at beach level. Undercutting of the bluffs and seacaves are a fairly prominent feature of the shoreline in this area, and filling this area will alter the natural appearance of the bluffs. The applicants are proposing the use of erodible fill material which will be colored and textured to approximate the appearance of the surrounding bluffs. However, matching fill material to the appearance of natural bluffs can be a tricky process, as it can take weeks or even months before the material fully cures, and thus it is difficult to tell at the time of application how well the fill material will blend into the surrounding natural bluffs. In addition, once cured, weathering can change the appearance of either the infill or the surrounding bluffs. Thus, even if the notch fills matches the natural bluffs closely one year, several years later there may be a distinct difference in appearance.

Another difficulty involved with the appearance of the infill is the ability of the infill to erode at a rate similar to the surrounding natural bluffs. Unless the infill erodes at the same rate as the surrounding bluffs, the infill could eventually extend further seaward than the receding bluffs. The applicants’ engineer contends that the proposed erodible infill has similar erosion characteristics to the lower cliff-forming bedrock unit at the subject site and “is a precisely engineered product, thoroughly tested and proven over the last 30 years in actual construction projects throughout the United States” (see Exhibit 8, page 20-22). However, the engineer has not provided documentation of successes involving the use of this material as infill along the shoreline. The Commission has recently approved the infill (with erodible concrete) of an approximately 400 foot-long section of seacave/notch overhangs located two lots south of the subject site (ref. CDP 6-99-103/Coastal Preservation Association). As a condition of approval, the applicants were required to monitor the project overtime and report to the Commission whether the infill does in fact erode at a rate similar to that of the bluff and to determine how the color and texturing of the product performs overtime. The 400 foot-long infill represents the first substantial test of the erodible concrete mixture along the shoreline. While work on the infill appears to be substantially completed, the effort to monitor its success has not commenced. Therefore, it is too early to conclude whether the use of the erodible concrete is a technology that can prove successful as a preemptive measure with limited or no adverse impacts. Thus, the Commission cannot be assured that the proposed development will be designed to effectively mitigate its adverse impacts on the visual resources of the area. It would be premature for the Commission to approve additional preemptive notch/undercut fills, until these monitoring studies are complete and have proven successful.

As previously described, the subject proposal has not been determined to be necessary to protect the existing residential structures and would adversely affect the visual resources of the natural bluff. Therefore, the Commission finds that the subject development is inconsistent with Section 30251 of the Coastal Act.

5. **Public Access.** Many policies of the Coastal Act address the provision, protection and enhancement of public access to and along the shoreline. The policies that apply in this case are the following:
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 30221.

Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.

In addition, Section 20252 states, in part, that:

The location and amount of new development should maintain and enhance public access to the coast . . .

In addition, Section 30604(c) requires that a specific access finding be made for all development located between the sea and first coastal roadway.

The subject project is located on the bluff formation directly adjacent to a public beach. Public lateral access is available along the entire stretch of coastline in this area, mostly at low tides; however, 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 access approximately 800 south of the subject site at the Fletcher Cove. The proposed notch/undercut filling would 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 shoreward edge continues to erode, thereby reducing the amount of dry sandy beach available to the public. The proposed notch/undercut fill has been designed to erode with the natural bluffs, and thus, if truly erodible, will not permanently fix the back of the beach. The Commission, however, is concerned that since the use of
the erodible material has not been used as infill along the shoreline over an extended period of time, its performance as an erodible structure has not been tested. However, if the infill performs as designed, the project will prevent the natural blockfalls of bluff material that currently provide sand to the beach in this area. As previously described, the amount of sand along the Solana Beach shoreline is limited, and at times, nonexistent. Thus, as the project will result in a further loss of sand, it has the potential for reducing the public’s ability to access the shoreline.

Therefore, since the proposed development will result in the loss of sand to the beach which may affect the public’s ability to access the shoreline, the Commission finds that the subject proposal will result in adverse impacts on beach access and public recreation inconsistent with Sections 30210, 30211, 30221, and 30252 of the Coastal Act and must be denied.

6. **Local Coastal Planning.** Section 30604 (a) also requires that a coastal development permit shall be issued only if the Commission finds that the permitted development will not prejudice the ability of the local government to prepare a Local Coastal Program (LCP) in conformity with the provisions of Chapter 3 of the Coastal Act. In this case, such a finding cannot be made.

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

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

The bluffs in this section of the Solana Beach coastline are mostly in public ownership. Approval of the proposed project would send a signal that there is no need to address a
range of non-structural alternatives to protect existing development. It would be premature to commit the entire Solana Beach shoreline to armoring without a thorough analysis of alternatives. Planning for comprehensive protective measures should include a combination of approaches including limits on future bluff development, ground and surface water controls, beach replenishment, and even continual lower bluff protection constructed in substantial segments. Decisions regarding future shoreline protection must be done through a comprehensive planning effort that analyzes the impact of approving shoreline protection on the entire City shoreline. These issues of shoreline planning will need to be addressed in a comprehensive manner in the future through the City's LCP certification process.

The City of Solana Beach is currently in the process of developing its LCP. In the case of the subject development, the proposed notch fill along with similar types of notch/undercut areas have not been addressed in a comprehensive manner by either the City or the applicant. Based on the above findings, the proposed notch/undercut fill has been found to be inconsistent with the Chapter 3 policies of the Coastal Act in that the proposed development will have unmitigated adverse impacts on public access, beach sand supply and visual resources of the area. In addition, the proposal involves a piecemeal approach to a region-wide problem. Therefore, the Commission finds that approval of the proposed notch/undercut fill would prejudice the ability of the City of Solana Beach to complete a certifiable local coastal program.

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

The proposed project has been found inconsistent with the resource protection policies of the Coastal Act relating to shoreline sand supply, public access and visual resources. Alternatives to the proposed development include the no project alternative since the subject residences are not currently threatened. In addition, other alternatives that involve less beach encroachment and a reduction or elimination of adverse impacts on shoreline sand supply include underpinning of the existing residences and removal of portions of the residences as they become threatened. Therefore, the Commission finds that the proposed project is not the least environmentally damaging feasible alternative and cannot be found consistent with CEQA.
LEGEND

- Approximate location of City of Solana Beach setback from street centerline
- Approximate location of Coastal Commission 25-foot setback line from bluff
- Approximate location of Coastal Commission 40-foot setback line from bluff
- Location of infill
- Limits of seacave/notch/overhang as of 6-18-98, additional bluff failures have occurred after this date and are not reflected on this topographic map
- Soil boring location
- Location of cross section

GEOLOGIC SYMBOLS

- Location of strike & dip of bedding
- Location of strike & dip of joint
- Location of strike & dip of fault, indicating relative up & down movement

NOTE:
- Photogrammetrically prepared topographic

PROJECT NAME: Pacific Avenue 245-249, Solana Beach

PROJECT NUMBER: 1985

Figure No. 1

Existing Seawall
CDP #6-99-100

Existing Notch Fills
CDP #6-99-103

Proposed Infill Area

CDP #6-99-103
SECTION 1 - SEA CAVE / NOTCH INFILL

- BAY POINT FORMATION
- TORREY SANDSTONE FORMATION
- 1' MIN. FROM SEAWARD DRIPLINE
- FILL CAVE VOID WITH ERODIBLE CONCRETE FILL
- EXISTING SAND BEACH DEPTH VARIES
- NOTCH DEPTH VARIES 4' TG 10'
- 3' WIDE BY 2' DEEP - KEY (TYP.)
- BEDROCK +1 MSL

EXHIBIT NO. 3
APPLICATION NO. 6-00-35
Construction Plan
Cross Sections
Page 1 of 1
NOTE:
Field survey conducted July 6, 2000
On May 7, 1996, the California Coastal Commission granted to Mr. and Mrs. Donald Ratkowski this permit for the development described below, subject to the attached Standard and Special Conditions.

Description: Demolition of an existing 1,135 sq.ft. single-family residence and 186 sq.ft. detached garage and construction of a 3,951 sq.ft., tri-level single-family residence on a blufftop lot.

Lot Area 4,830 sq. ft.
Building Coverage 2,114 sq. ft. (44%)
Pavement Coverage 1,327 sq. ft. (28%)
Landscape Coverage 1,127 sq. ft. (23%)
Unimproved Area 262 sq. ft. (5%)
Parking Spaces 2
Zoning Medium Residential
Plan Designation Medium Residential (5-7 du/ac)
Ht abv fin grade 25 feet

Site: 245 Pacific Avenue, Solana Beach, San Diego County.
APN 263-312-11.

Issued on behalf of the California Coastal Commission by
PETER DOUGLAS
Executive Director
and

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

ACKNOWLEDGEMENT

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

July 21, 1997
CALIFORNIA COASTAL COMMISSION SAN DIEGO COAST DISTRICT

EXHIBIT NO. 6
APPLICATION NO. 6-00-35
Coastal Development Permit 6-96-21
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:

The permit is subject to the following conditions:

1. Final Project Plans. Prior to the issuance of the coastal development permit, the applicant shall submit for review and written approval of the Executive Director, final building, foundation, drainage and grading plans, approved by the City of Solana Beach, which shall include the following:

   a. All surface drainage shall be collected and directed away from the edge of the bluff towards the street.

   b. Foundation plans shall be in substantial conformance with the preliminary foundation plans submitted with this application, which incorporate a foundation design that does not preclude, but facilitates, removal of portions of the home seaward of 40 feet, or other incremental portions of the house, or the entire house in the future.
SPECIAL CONDITIONS, continued:

c. Said plans shall clearly indicate both the 25 ft. and 40 ft. blufftop setback lines (measured from the top of the bluff as depicted on the plans by Edward M. Eginton dated 3/18/96) and reflect compliance by the applicant with one of the following options:

1. Revised site plan shall indicate a minimum 40 ft. setback for all portions of the principal residence from the edge of the bluff as depicted on the plans by Edward M. Eginton dated 3/18/96 (ref. Exhibit #2). Accessory structures permitted seaward of the residence shall be at grade (no extensive footings) and no closer than 5 feet from the bluff edge.

OR

2. Provision of a minimum 25 ft. setback for all portions of the principal residence from the top edge of the bluff, utilizing the bluff edge depicted on the plans by Edward M. Eginton dated 3/18/96, and recordation of a deed restriction pursuant to Special Condition #2 of CDP #6-96-21 below.

2. Deed Restriction. Prior to the issuance of the coastal development permit, and only if the applicant chooses option c.2 of Special Condition #1 above, 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 waives all right to construct any upper or lower bluff stabilization devices (other than "preemptive" filling of seacaves at the base of the bluff as approved through a coastal development permit) to protect that portion of the residence located seaward of the 40 ft. blufftop setback as depicted on the plans submitted in accordance with Special Condition #1, in the event that such portion of the structure is threatened or subject to damage from erosion, storm wave damage, or bluff failure in the future.

b. That in the event the edge of the bluff recedes to within 10 feet of the principal residence, a geotechnical investigation shall be prepared by a licensed coastal engineer and geologist retained by the applicant, that addresses whether any portions of the residence are threatened, and identifies all those immediate or potential future alternative measures necessary or desired to stabilize the principal residence without shore or bluff protection, including, but not limited to, removal or relocation of those portions of the principal residence located seaward of the 40 ft. blufftop setback as depicted on the plans submitted in accordance with Special Condition #1.

c. If erosion or bluff failure proceeds to a point where the edge of the bluff recedes to within 10 feet of the principal residence, and any portion of the principal residence located seaward of the 40 ft. blufftop
SPECIAL CONDITIONS, continued:

setback as depicted on the plans submitted in accordance with Special Condition #1 is determined by a geotechnical report and the City of Solana Beach to be unsafe for occupancy, then the landowner shall, in accordance with a coastal development permit, remove that portion of the structure in its entirety.

The document shall be recorded free of all prior liens and encumbrances and shall run with the land and bind all successors and assigns.

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 applicant assumes the liability from such hazards, and (b) the applicant unconditionally waives any claim of liability on the part of the Commission or its successors in interest for damage from such hazards and agrees to indemnify and hold harmless the Commission, its officers, agents, and employees relative to the Commission's approval of the project for any damage. The document shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens.

4. Future Shoreline Protective Works. 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 that in the event any bluff or shoreline protective work is anticipated in the future to protect those portions of the residence sited inland of the 40 ft. blufftop setback as depicted on the plans submitted in accordance with Special Condition #1, the applicant acknowledges that as a condition of filing an application for a coastal development permit, the applicant must provide the Commission or its successor agency with sufficient evidence enabling it to consider all alternatives to bluff protective works, including, but not limited to, consideration of relocation of portions of the residence that are threatened, structural underpinning, or other remedial measures identified to stabilize the residence that do not include bluff or shoreline stabilization devices. The document shall be recorded free of all prior liens and encumbrances and shall run with the land and bind all successors and assigns.

5. 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 is only for the development described in the coastal development permit #6-96-21; and that any future additions or other development as defined in Public Resources Code Section 30106 will require an amendment to permit #6-96-21 or will require an additional coastal development permit from the California Coastal Commission or from its successor agency, unless such
SPECIAL CONDITIONS, continued:

development is explicitly exempted under the Coastal Act and the Commission's Code of Regulations. The document shall be recorded as a covenant running with the land binding all successors and assigns in interest to the subject property.

6. **Landscaping Plan.** 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 native or naturalizing plant materials shall be utilized to the maximum extent feasible. Plans shall also indicate that any existing permanent irrigation system located seaward of the 40 ft. blufftop setback shall be capped or removed and that no landscaping, accessory structures or permanent improvements shall be located within five feet of the bluff edge. Said plan shall be first approved by the City of Solana Beach and submitted to, reviewed and approved in writing by the Executive Director.

7. **Disposal of Graded Spoils.** Prior to the issuance of the coastal development permit, the applicant shall identify the location for the disposal of graded spoils. If the site is located within the coastal zone, a separate coastal development permit or permit amendment shall first be obtained from the California Coastal Commission or its successors in interest.
August 29, 2000

California Coastal Commission
Attn: Gary D. Cannon, Coastal Planner
7575 Metropolitan Dr., Ste. 103
San Diego, CA 92108

Re: Coastal Development Permit Application #6-00-35
(Presnell / Ratkowski)

Dear Coastal Commission Members:

As a life long North County resident and frequent user of the beaches of Solana Beach, I have been appalled at the deterioration of the beach condition due mainly to the erosion of sand from the beaches. With all the natural forms of sand replenishment cut off and lack of beach restoration, the beaches have eroded, resulting in collapses and instability in the bluffs above. This erosion has gone on over my lifetime, but it has been particularly bad the last few years. The situation has gotten so bad, users of the beach are at risk and bluff homes are in danger.

I think projects such as the Presnell / Ratkowski notch fill project are the most reasonable short-term solution to the problem. This project will help stop cliff erosion, help ensure bluff stability, which will improve public safety and protect bluff top homes. I urge you to approve this project and any similar future projects because they are the best possible solution for the safety of beachgoers until beach restoration can be accomplished.

Very truly yours,

Christopher J. Connolly
August 15, 2000

California Coastal Commission
Attn: Gary D. Cannon, Coastal Planner
7575 Metropolitan Dr, Suite 103
San Diego, CA 92108

RE: Coastal Development Permit #600-35 for 249 & 245 Pacific Avenue, Solana Beach

Dear Members of the Coastal Commission

As the river and inlets were diverted and developed, our natural sources of beach sand replenishment dwindled. The resulting erosion of our beach sand has exposed the bluffs, here in Solana Beach, to direct pounding of the surf which has accelerated their deterioration. This has created an unstable precipice, dangers for many property owners above and hundreds of bathers below.

I hope you will support the notch fill projects on the Presnell & Ratowski properties (Permit #6-00-35). Without responsible bluff stabilization activities, tragic accidents similar to the one in Encinitas a few months ago are bound to occur.

Respectfully,

Jon Jessen
611 W. Circle Drive
Solana Beach, CA 92075-1113
August 14, 2000

California Coastal Commission
7575 Metropolitan Drive
Suite 103
San Diego, CA 92108

Gentlemen:

    We would like to go on record as in favor of the proposed notchfill for the homes located at 245-249 Pacific Avenue, Solana Beach, California (Presnell/Ratkowski). The proposed project will be in the best interest of public safety by helping to eliminate future bluff failures.

Sincerely,

Terry Lingenfelder

Dale Lingenfelder

Terry Lingenfelder • 309 Pacific Ave., Solana Beach, CA 92075
Dear Coastal Commission Members:

As a resident on the coast in Solana Beach, we are seeing our beaches and our bluffs disappear right in front of our eyes. This State of California Resource must not be allowed to continue to just evaporate without a fight to retain this wonderful asset for all of us whom enjoy our coast.

It has gotten so bad that our own City of Solana Beach is having great problems in attacking this fix by themselves. We need all the help we can muster from all agencies. As private property owners wanting to protect our own property with our own assets, we should be encouraged by the Coastal Commission.

We know help is on the way, but we need to be able to help ourselves with your approvals.

Your Very Truly,

Seymour G. Phillips
135 South Sierra Ave # 24
Solana Beach, CA 92075-1818
California Coastal Commission  
7575 Metropolitan Drive, Suite 103  
San Diego, CA 92108  
Attention: Gary Cannon, Coastal Planner

Re: Coastal Development Permit Application #6-00-35 (Presnell/Ratowski)

Dear Coastal Commission Members:

As a resident of Solana Beach, CA, I wholeheartedly support the project to infill the notch below the properties of Mr. Presnell and Mr. Ratkowski. Our property is located two doors north of Mr. Presnell's property and we have been declared an emergency and have had to build a seawall and will have to rebuild the upper slope. Mr. Presnell and Mr. Ratkowski will be required to have to do the same thing as we have had to do if they are not granted the permit. However, the most important measure is the fact that if they are not allowed to infill the sea caves below their property, their bluffs will fail and will endanger the lives of the unsuspecting or the unbelieving beachgoers who ignore the safety alerts of the lifeguards who warn the beachgoers of the dangers of the unstable sea bluffs. By allowing these homeowners to infill the sea caves below their homes you will be preventing a chance of the recurrence of someone losing his/her life as we experienced in Encinitas last year. We should not need to plead "wolf" all the time to have the CCC understand the extreme dangers that the unstable bluffs present. Opponents to infilling the sea caves have yet to accept that there is a real danger to beachgoers. I cannot believe that they have a clean consciousness regarding the possibility to death to the beachgoers. Their purpose is archaic and idiotic. You have seen the death recently of one woman, do not let the objections of a few bluff lovers allow you to ignore the safety of everyone else. Let's fill in the seacaves and eliminate the need to endanger lives or have to build more seawalls.

Now that sand is going to be deposited on our beaches, please approve this project and allow the restoration of the beaches to proceed without allowing the bluffs to continue to fail. Replenishment of the sand will not prevent bluff failure at this stage without infilling of the seacaves. Thank you for your deepest concern for the safety of all of us who love the experience of enjoying and using our beaches.

Sincerely,

Buzz and Diana Colton  
261 Pacific Avenue
Mr. Gary Cannon  
California Coastal Commission  
7575 Metropolitan Dr.  
Suite 103  
San Diego, CA 92108  

Dear Mr. Cannon;  
This letter is being sent to register my support for the notch fill project of Mr. Keith Presnell and Mr. Don Ratkowski. (Ref: Coastal Development Permit 6-00-35).

I feel that dealing with the problem at this phase of the deterioration is far better than waiting until massive work needs to be done. I hope you and the Coastal Commission will agree.

Sincerely,  

William Bennett
August 9, 2000

Gary Cannon
California Coastal Commission
3111 Camino Del Río North, Suite 200
San Diego CA 92108-1725

Re: Coastal Development Permit Application No. 6-00-35 (Presnell/Ratowski)

Dear Mr. Cannon:

As you know, I am the owner of the house at 319 Pacific Avenue. I write to express my support for the Presnell/Ratowski notchfill project. This project is desperately needed as it will protect the existing residences and enhance public safety.

Thank you.

Jonathan Corn

cc: Keith Presnell
August 14, 2000

California Coastal Commission
7575 Metropolitan an Dr., Suite 103
San Diego, CA 92108
Attention: Gary D. Cannon, Coastal Planner

Re: Coastal Development Permit Application #6-00-35 (Presnell/Ratowski)

Dear Coastal Commission Members:

As a long-time homeowner in North county and frequent user of the beaches in Solana Beach, I have been appalled at the deterioration of the beach condition due mainly to the erosion of sand from the beaches. With all the natural forms of sand replenishment cut off and beach restoration apparently not a priority within the state, the erosion has resulted in collapses and instability in the bluffs above. Slow erosion has gone on over my lifetime but it has sped-up tenfold in the last two years.

The undercuts under our home grew from just a few inches in 1998 to 8 feet height and 8 feet deep in the time it took to get your approval and to fulfill all the requirements as laid out by you. We were finally able to fill most of our notches in April through June 2000. The situation has gotten so bad users of the beach are at risk and bluff homes are in danger.

We think the Presnells & Ratowskis should also be able to preserve the bluffs and their homes by filling the notches. No one wants his home (either new or old) threatened and be told you can do nothing to protect it until the last resort when the cost reaches as much as $850,000, when more modest preventative measures could now be made available. Allowing these infills will enable moderate-income people, who have long planned their retirement days here to do so. Otherwise, they may be forced to sell to wealthy individuals that can afford $850,000 seawalls somewhere down the road.

I think projects such as the Presnell/Ratowski notch fill should be encouraged as the most reasonable short-term solution to the problem. This project will help stop cliff erosion, which will help insure bluff stability, which will improve public safety and protect bluff top homes. I urge you to approve this project and any similar future projects because they are the best possible solution until beach restoration can be accomplished.

Very truly yours,

Ann W. Baker & Robert H. Baker
219 Pacific Avenue
Solana Beach, CA 92075
August 14, 2000

California Coastal Commission
Attention: Gary D. Cannon, Coastal Planner
7575 Metropolitan an Dr., Suite 103
San Diego, CA 92108

Re: Coastal Development Permit Application #6-00-35
(Presnell/Ratowski)

Dear Commission Members:

Due to the unfortunate conditions of beach's in North County, projects such as the Presnell/Ratowski notch fill project are necessary to impede cliff erosion, insure bluff stability, provide public safety and protect bluff top homes. I urge you to vote in favor of this project.

Yours truly,

Pam Dionne-Gilardi
4821 Windjammer Way
Carlsbad, CA 92008
August 14, 2000

California Coastal Commission
7575 Metropolitan Drive, Suite 103
San Diego, CA 92108
Attention: Gary D. Cannon, Coastal Planner

Re: Coastal Development Permit Application #6-00-35 (Presnell/Ratowski)

Dear Mr. Cannon:

Having been born and raised in coastal North County and a longtime surfer on those beaches, I am sad to see the deterioration of the beaches. With natural forms of sand replenishment cut off and beach restoration always on the horizon, this situation is not likely to change in the near future.

Due to these unfortunate conditions projects such as the Presnell/Ratowski notch fill are necessary to help hold back cliff erosion and provide bluff stability, which will help insure public safety and protect bluff top homes. I urge you to support this project.

Sincerely,

Sondra Forkner
August 14, 2000

California Coastal Commission
7575 Metropolitan an Dr., Suite 103
San Diego, CA 92108
Attention: Gary D. Cannon, Coastal Planner

Re: Coastal Development Permit Application #6-00-35 (Presnell/Ratowski)

Dear Coastal Commission Members:

As a North county resident and frequent user of the beaches in Solana I urge you to support the above named project. This type project is necessary for public safety and protection of bluff homes.

Thank you,

Arthur Richards Rule
7540 Navigator Circle
Carlsbad, CA 92009

cc: Keith Presnell
Mr. Gary Cannon  
California Coastal Commission  
7575 Metropolitan Drive, Ste. 103  
San Diego, CA. 92108  

August 10, 2000  

Re: Presnell & Ratkowski Seacave Infill  
245-249 Pacific Avenue, Solana Beach  
Permit No. 6-00-35  

Dear Mr. Cannon:

Please consider this letter as our strong support of the above-mentioned coastal project. We encourage you to endorse and expedite this permit in an effort to mitigate further erosion of the beachfront bluff. A small effort now will delay, if not permanently prevent, much larger protective measures in the future.

We can assure you from personal experience that an ounce of prevention will offset a pound of cure. Had we been allowed to protect the lower bluff from continuous wave assault in a more timely fashion, we would not have suffered the enormous lower and upper bluff loss over the past 2-3 years.

More importantly, you have the authority to address an enormous public safety issue. By acting positively on this application, you will be responsibly advancing public access and use of this valuable resource. To withhold approval will increase the probability that unsuspecting beach-goers are subject to unpredictable bluff failures. In the name of public safety, please act quickly and affirmatively on this project.

Yours truly,

Jim Blackburn

Jim & Leslie Blackburn  
371 Pacific Avenue  
Solana Beach, CA. 92075
Mr. Gary Cannon  
California Coastal Commission  
7575 Metropolitan Drive, Ste. 103  
San Diego, CA. 92108

Re: Presnell & Ratkowski Seacave Infill  
245-249 Pacific Avenue, Solana Beach  
Permit No. 6-00-35

August 10, 2000

Dear Mr. Cannon:

Please consider this letter as our strong support of the above-mentioned coastal project. We encourage you to endorse and expedite this permit in an effort to mitigate further erosion of the beachfront bluff. A small effort now will delay, if not permanently prevent, much larger protective measures in the future.

We can assure you from personal experience that an ounce of prevention will offset a pound of cure. Had we been allowed to protect the lower bluff from continuous wave assault in a more timely fashion, we would not have suffered the enormous lower and upper bluff loss over the past 2-3 years.

More importantly, you have the authority to address an enormous public safety issue. By acting positively on this application, you will be responsibly advancing public access and use of this valuable resource. To withhold approval will increase the probability that unsuspecting beach-goers are subject to unpredictable bluff failures. In the name of public safety, please act quickly and affirmatively on this project.

Yours truly,

Jim Blackburn

Jim & Leslie Blackburn  
371 Pacific Avenue  
Solana Beach, CA. 92075
August 10, 2000

California Coastal Commission
Attention: Gary D. Cannon, Coastal Planner
7575 Metropolitan Dr., Suite 103
San Diego, CA 92108

Re: Presnell/Ratowski Application Permit #6-00-35

Dear Members of the Commission:

I am writing this letter to urge you to vote in favor of the Presnell/Ratowski notch fill project. Proactive projects that will help assure public safety on the beach and protect bluff owners' property before further major bluff failures are essential. The failure to approve such projects will only result in much greater structures being necessary in the future. Please vote for this project.

Sincerely

Rick Hilgert
August 10, 2000

California Coastal Commission
7575 Metropolitan an Dr., Suite 103
San Diego, CA 92108
Attention: Gary D. Cannon, Coastal Planner

Re: Coastal Development Permit Application #6-00-35 (Presnell/Ratowski)

Dear Coastal Commission Members:

As a life long North county resident and frequent user of the beaches in Solana I have been appalled at the deterioration of the beach condition due mainly to the erosion of sand from the beaches. With all the natural forms of sand replenishment cut off and beach restoration apparently not a priority within the state, the beach have eroded, which has resulted in collapses and instability in the bluffs above. This erosion has gone on over my lifetime but it has been particularly bad the last few years. The situation has gotten so bad users of the beach are at risk and bluff homes are in danger.

I think projects such as the Presnell/Ratowski notch fill project are the most reasonable short-term solution to the problem. This project will help stop cliff erosion, which will help insure bluff stability, which will improve public safety and protect bluff top homes. I urge you to approve this project and any similar future projects because they are the best possible solution to the problems until beach restoration can be accomplished.

Very truly yours,

Kimberly K. Milner
1324 Evergreen Dr.
Cardiff, CA 92007
August 11, 2000

California Coastal Commission
7575 Metropolitan Dr., Suite 103
San Diego, CA 92108
Attention: Gary D. Cannon, Coastal Planner

Re: 249 & 245 Pacific Ave., Solana Beach
    Coastal Development Permit Application #6-00-35

Dear Members of the Coastal Commission:

This letter is sent to urge you to support the 249 & 245 Pacific Ave.
(Presnell/Ratowski) notch fill project. As a Solana Beach user and parent of a small
child I have serious concerns regarding public safety because of the lack of stability of
the bluffs in Solana Beach. I think this type of project represents the best alternative
available to provide stability to the bluffs. Minimal proactive measures such as this
project need to be done to protect beach users before further tragic accidents happen.
No one wants to see reoccurrence of what happened last winter in Encinitas. I urge
you to approve this project.

Sincerely,

Paul Van Eeden
2028 Courage Street
Vista, CA 92083
August 9, 2000

California Coastal Commission
7575 Metropolitan Dr., Suite 103
San Diego, CA 92108
Attention: Gary D. Cannon, Coastal Planner

Re: Coastal Development Permit Application #6-00-35
(Presnell/Ratowski)

Dear Members of the Coastal Commission:

I am writing you this letter in support of the Presnell/Ratowski notch fill project. As a Solana Beach user I have serious concerns regarding public safety because of the lack of stability of the cliffs and bluffs. I think this type of project represents the best alternative available to minimizing erosion and providing stability to the bluffs. I urge you to approve this project.

Very truly yours,

[Signature]

[Address]

San Diego, CA 92129
August 7, 2000

California Coastal Commission
7575 Metropolitan an Dr., Suite 103
San Diego, CA 92108
Attention: Gary D. Cannon, Coastal Planner

Re: Coastal Development Permit Application #6-00-35 (Presnell/Ratowski)

Dear Members of the Coastal Commission:

I am writing you this letter in support of the Presnell/Ratowski notch fill project. As a Solana Beach resident and frequent user of the beach I have had grave concerns regarding public safety because of the lack of stability of the cliffs and bluffs. I think this type of project represents the best alternative available to minimizing erosion and providing stability to the bluffs. I urge you to approve this project and any future projects that will help insure bluff stability and related public safety.

Thank you,

Peter McCaffrey
833 Cedros Ave
Solana Beach CA 92075
January 17, 2001

California Coastal Commission
7575 Metropolitan Drive #103
San Diego, CA 92108

Re: CDP NO. 6-00-35 (Presnell/Ratkowski)

Madam Chair and Coastal Commissioners:

I am writing to the Coastal Commission as a private citizen with a long time love for the City of Solana Beach and its coastline. I have also, this past December, stepped down as a Council Member and served three times as the Mayor of the City of Solana Beach, and that capacity have been strongly motivated to protect this City’s coastal resources. Having been involved in the original drafting of the City’s Municipal Code section for shoreline and coastal bluff protections, and possibly more important, as Mayor, authorized the preparation of a Beach and Bluff Element for the City’s General Plan, with its purpose to provide direction for issues associated with the community’s shoreline, coastal bluffs and adjacent properties. The Beach and Bluff Element was also intended to become an integral part of the City’s Local Coastal Program.

As a City with a population of 14,000, and our entire population within two miles of the coastline, our coastline and our beaches are very important to everyone in the City. Although we have lost our sandy beaches, as former Mayor and Council Member, I can say that this City’s elected officials and City Staff have worked hard to get sand back on our beaches, in part through SANDAG and our own efforts with the Grade Separation project with NCTD (North County Transit District) and other similar projects.

Until just recently, our City’s coastal bluffs have been immune to the problems of our neighbors to the north, and it was not until the El Nino storms of a few years ago that portions of our coastal bluffs experiences the types of erosion that our northern neighbor, the City of Encinitas, has been struggling with for over a decade.

It is this background that the City has now embarked upon working with the Coastal Commission in developing a Local Coastal Program and the Beach and Bluff Element represented an important contribution to the refinement of our coastal policy. Important to the Beach and Bluff Element of the General Plan was the Citizen Advisory Committee, which participated in thirteen community workshops to develop consensus in developing goals, objectives, and policies for the effective management of Solana Beach’s shoreline and coastal bluffs, and essentially building upon the excellent work that the City Staff has done in developing our earlier shoreline and coastal bluff protection chapter contained in the City’s Municipal Code. The General Plan Advisory Committee.
Committee contained community members, including representatives from coastal bluff-top homeowners and other property owners both east and west of Interstate 5, business owners, and members of Surfrider. I mention Surfrider here, because many of the citizens are surfers and, as a City, we probably have a larger contingent of surfers than any other city within San Diego County, and there is no question that as a group and organization, they also have a great deal of love and passion for our coastline. Mr. Marco Gonzales, an environmental attorney, a member of Surfrider and a resident of Solana Beach, participated in the City’s General Plan Advisory Committee meetings and endorsed, along with other committee members, the final draft of the Beach and Bluff Element, further solidifying the important of the consensus-building that the City worked so hard to achieve in redefining our coastal policies.

Key to the City’s policies is the “implementation of a cost-effective combination of shoreline and coastal bluff management tactics that will have a positive impact on Solana Beach, while maintaining the way of life for its citizens”. Two important objectives developed as part of the Beach and Bluff Element follow:

Policy 1.c, Shore Protection – Protection measures such as sea cave plugging and filling of notches (overhangs) are preferred over other measures such as seawalls.

Policy 1.d, Bluff Stability Measures – Use comprehensive bluff stability measures to improve the stability of a mid- and upper-bluff face, while maintaining the bluff face in as natural a condition as possible, and provide aesthetic standards for all retaining walls. Preserve the visual quality of both the upper sloping coastal bluffs and the lower vertical sea cliffs to the maximum extent possible.

These objectives reflect past City policies originally described in the City’s Municipal Code and reaffirmed through the City’s Public Advisory Committee that developed the Beach and Bluff Element of the General Plan. They are also consistent with past City Council decisions to strongly encourage the filling of notches and plugging of sea caves to prevent a significant coastal bluff failure, significantly affecting the visual quality of the City’s coastline. I restate, the visual quality includes both the upper sloping coastal bluffs and the lower vertical sea cliffs, both of which are protected by filling of notches. These notch fills are also at the toe of the coastal bluff and would be buried by a sandy beach, like those that existed only a decade ago.

I strongly encourage you to support this notch infill below Mr. Presnell’s and Mr. Ratkowski’s bluff-top properties.

Very truly yours,

[Signature]

Marion B. Dodson

Cc: Mayor Campbell and Members of the City Council
January 16, 2001

California Coastal Commissioners
7575 Metropolitan Drive, Suite 103
San Diego, California 92108

Re: CDP NO. 6-00-35 (PRESNELL/RATKOWSKI)
245 - 249 Pacific Avenue
Solana Beach, California

Madam Chair and Coastal Commissioners:

As City Manager, I appreciate the efforts of the California Coastal Commission in preserving the natural landforms along bluffs and cliffs, providing public access to beaches, and protecting the visual resources of the coastline. I can assure you that the City of Solana Beach is equally concerned with these issues, and has codified this in Chapter 17.62 of the Solana Beach Municipal Code. In our Municipal Code, we have developed a shoreline preservation strategy that preserves an aesthetically pleasing shoreline to protect the beach as a recreational amenity and tourist attraction. We have developed a Beach & Bluff Element of our General Plan, with significant input from a complete cross-section of interested parties.

The City Council reviewed a 450-page staff report for a notch fill project for the Corn/Scism property and listened to the public’s input during a 4-hour public hearing held on December 19, 2000. Our City Attorney, Ms. Celia Brewer, investigated the question of whether cumulative impacts had been considered in our support of the Corn/Scism project, and determined the City had followed the “mitigated negative declaration” provisions of CEQA, where cumulative impacts must be considered. The City of Solana Beach truly appreciates the concern of the public regarding cumulative impacts of our shoreline defense projects and has requested an EIR be prepared to specifically address this issue. During our January 9, 2001, City Council meeting, we selected an independent and unbiased consulting firm to prepare this EIR.

As a City, we are committed to the recreational quality of our coastal resources, but also to the health, safety, and welfare of our citizens on the beach and the preservation of the bluff-top properties. The permit application for a notch fill for the Presnell/Ratkowski property at 245 and 249 Pacific Avenue requests similar preemptive stabilization methods of the bluff by filling an existing notch at the base of the bluffs with erodible concrete as the project for Corn/Scism. Just to the south of the notch at the Presnell/Ratkowski property, a spectacular collapse recently occurred at the Meyers/Hawkins property. By filling the notch at the Presnell/Ratkowski property, a similar collapse can be precluded, thus avoiding larger and
Coastal Commission
Presnell/Ratkowski CDP No. 6-00-35
January 16, 2001
Page 2

more obtrusive seawall projects, and still protect the health, safety and welfare of our beach-using public.

As we have been informed by consultants in coastal engineering, including Mr. Walt Crampton of Group Delta Consultants and others, all of these collapses in the coastal bluffs of Solana Beach occur as these notches in the bluff base form and reach a limiting distance. I understand that in 1996, when the Commission allowed development on the Ratkowski property within 25 feet of the bluff edge, the only bluff stabilization measure allowed under the deed restriction is a preemptive filling of sea caves at the base of the bluff as approved through a Coastal Development Permit. I understand the semantic distinction between a notch and a sea cave. The City of Solana Beach makes no distinction between sea caves and notches. The General Plan of Solana Beach gives preference to sea cave plugging and notch filling as a measure to minimize the future need to construct much more intrusive protection devices such as seawalls, revetment, riprap or other permanent or semi-permanent devices. I believe that the proposed notch fill is consistent with the preemptive measures described in the deed restriction.

The sad reality is that the beaches and coastline of the City of Solana Beach have been severely damaged in the last couple of years. The problem of bluff collapses has increased with the loss of sand on our beaches. We are working diligently to address and solve the sand loss problem on North County’s beaches. Until a sufficient response to the sand loss problem is implemented, we are committed to preserving our coastline, and the filling of a notch is much, much preferable to constructing seawalls or other intrusive protective devices. I believe this preemptive strategy is far superior and logical than waiting to be in compliance with Section 30235 of the Coastal Act, where a collapse would create an emergency situation enabling the property owner to protect his property with a more intrusive seawall, or like Ocean Beach condominiums with rip-rap secured by concrete.

The City of Solana Beach endorsed a similar notch fill at the Baker/O’Neal property (201-231 Pacific Avenue), and the Commission also approved the notch fill at the Baker/O’Neal property. As a City, we do not understand the Commission’s logic in endorsing that project, which was consistent with our Municipal Code and General Plan, but not endorsing the Presnell/Ratkowski project, similarly consistent with the policies of Solana Beach. The City of Solana Beach has worked very hard at developing a very good, understandable, and consistent policy to utilize notch fills as a method to preserve our coastal bluffs and provide safety to the public. I must ask why the Commission has changed its policies with respect to preserving the coastal bluffs, providing public safety, and minimizing the potential for visually unattractive structures.

I look forward to the day when the beaches of Solana Beach are again covered with sand. In testimony at our December 19, 2000, public hearing, Mr. Crampton of Group Delta
Consultants testified that once the beaches are replenished with sand, as SANDAG is now working to make happen, the notch fills are so low that they will not be visible, but rather covered by a sandy beach. Any obstructions to the strategy developed by the City of Solana Beach could mean more visually unattractive seawalls present behind our future sand-covered beaches. As a City, we will work hard to keep this from happening. I strongly encourage the Commission to follow the goals and policy of the City of Solana Beach.

Sincerely,

Robert W. Semple
City Manager
January 22, 2001

California Coastal Commission
7575 Metropolitan Dr., Suite 103
San Diego, CA 92108

Attention: Gary D. Cannon, Coastal Planner

Re: Coastal Development Permit Application #6-00-35
(Presnell/Ratowski) 249 & 245 Pacific Ave., Solana Beach

Dear Madam Chair and Members of the Coastal Commission:

As a resident of an oceanfront property in Carlsbad, CA since 1967 I have observed the deterioration in our beach. The deterioration has been a source of major concern to me as both a property owner and beach user. The beach has represented a significant part of my life, as well as the lives of my children, grandchildren and my wife. Because of my major concern since 1967, I have systematically reviewed the beaches conditions in North San Diego County from Oceanside to Del Mar. I have made a point of reviewing all forms of sand replenishment and coastal fortifications used during this period with a thought as to what benefit or harm they have brought to the beach.

When I first occupied my property in Carlsbad there were no seawalls on the Carlsbad beaches. I have never had the need for a seawall in front of my residence nor have the owners directly to the south of my property. Therefore it has been with considerable concern as to what effect these structures may have on my property and the beach that I have watched the construction of the large wall to the south of us, built in early 1980’s to protect the coast highway and a number of smaller walls built from the mid 1970’s on to protect various other properties. After observing the effects of these various walls, I feel very comfortable in saying that in Carlsbad there has been no adverse effect on the beach from the walls. With the exception of occasional small problems at the end of a structure or isolated situations where rebar is exposed, both of which can easily be dealt with in an ongoing maintenance program, I can observe no adverse effects whatsoever from the seawalls. The beach is very uniform and there is virtually no difference between beach quality whether a seawall is present or not present. There appears to be no additional erosion and I can observe no adverse effects either north or south of a structure that would indicate the presence of the seawall has merely transferred the problem to another area. Indeed the overall quality of the Carlsbad beaches is far greater, much safer and far more usable than before the construction of the walls.
I have also observed the situation regarding the effects of localized seawall construction from Oceanside to Del Mar and although I have not observed them as keenly as I have the situation in Carlsbad, there does not appear to be any adverse effects from the structures. Indeed the best beaches in Solana Beach are at the south end where seawalls and riprap have been in place for many years. Once again there does not appear to be any adverse effect further down the beach as a result of the structures.

Some of the older seawalls, particularly in the Encinitas/Leucadia area are not aesthetically pleasing. This is due to their large size and the manner of construction. The newer structures particularly those in Solana Beach, are far more appealing. Additionally the construction of a sea-cave/notch-fill at this stage is a much smaller structure that will not ever be visible if sand levels return to old levels, which is everyone’s ultimate goal.

Based on my 33 years of observing our coast, I strongly support the Presnell/Ratkowski project and urge you to approve it. As indicated in the above paragraphs, there appears to be no significant adverse effects from the projects and it most assuredly helps stabilize the bluffs, making the beach safer and more usable for the beach going public. Please vote for the project.

Sincerely,

R.R. Robinson
2997 Ocean
Carlsbad, CA 92008

RRR: ecp
Mr. Gary Cannon
CALIFORNIA COASTAL COMMISSION
7575 Metropolitan Drive, Suite 103
San Diego, California 92108

ADDITIONAL SUPPORTING MATERIAL
NOTCH INFILL PROJECT
245 & 249 PACIFIC AVENUE
SOLANA BEACH, CALIFORNIA

CDP NO. 6-00-35 (PRESNELL/RATKOWSKI)

Dear Mr. Cannon:

We are submitting this letter in response to the November 16, 2000, Coastal Commission Staff Report discussing the infill of the approximately 70-foot notch at the base of the coastal bluff below the two subject bluff-top residences. Staff is correct in that the subject bluff-top residences are not in imminent peril and thus the Commission is not required to approve the notch/undercut infill under Section 30235 of the Coastal Act. However, there is no question that this notch, if not stabilized in the near future, will collapse, destabilizing the upper bluff and eventually placing the subject bluff-top residences in peril. Recognizing that no remedial work will result in significant additional coastal bluff erosion, eventually necessitating significant and costly structures to protect the bluff-top residences, this project provides a relatively minor preemptive infill of the wave-cut notch at the base of the sea cliff to prevent further erosion, thereby forestalling the need for a much more massive shoreline protection structure in the future.

The proposed project, again the infill of a basal wave-cut notch, would be almost entirely buried by a healthy renourished beach. The proposed project will have the effect of significantly delaying the construction of much more massive shoreline
protection, which would have much more significant adverse impacts on coastal resources, such as visual quality, shoreline sand supply, public access, and recreation.

This project is essentially identical to the recently approved, 400-foot-long stretch of sea caves/undercut area at the base of the coastal bluff below 201 – 231 Pacific Avenue (CDP No. 6-99-103) where, again, no existing primary structures were in danger from erosion and the Commission was not required to approve shoreline protection under Section 30235 of the Coastal Act. However, it was concluded that, if the project was not implemented, far more massive shoreline protection would be necessary, with much more significant adverse impacts on coastal resources. This project is in strict conformance with the City of Solana Beach's Municipal Code, which also discourages the use of seawalls when other feasible shoreline or coastal bluff protection measures are available. The City's Municipal Code, along with the City's Draft Beach and Bluff Element of the General Plan, clearly indicates a preference for preemptive notch infills over the construction of seawalls.

Coastal Staff indicates that the Applicant and the City have not reviewed the subject proposal in the context of a comprehensive plan addressing shoreline erosion problems in the City. We take exception to this statement. Although the City does not have an approved Local Coastal Program, the City of Solana Beach has given considerable thought to the preservation of their beaches and bluffs. The City clearly recognizes the importance of their coastal resource and the cumulative effect of past, current, and future projects on this resource. It is with these considerations in mind that the City has developed its coastal policies, as generally articulated in both the City's Municipal Code and the recently-proposed, and still draft, Beach and Bluff Element of the City's General Plan. The stated goals, objectives, and policies of this plan are as follows:

"Effectively manage the Solana Beach shoreline and coastal bluffs by providing environmental quality, property protection, public safety and recreation. Implement a cost-effective combination of shoreline and coastal bluff management tactics that will have a positive impact on Solana Beach while maintaining the way of life for its citizens."
These policies were developed to deal with the eventual reality that coastal erosion will, at some time in the future, impact existing bluff-top structures. We find ourselves now at this crossroad and have the opportunity to minimize the significant visual impacts associated with the more massive structures that will, in the near term, be required to protect these bluff-top improvements in lieu of a much smaller scale, visually appealing, preventative measure today. As articulated in both the City's Municipal Code and the Draft Beach and Bluff Element of the City's General Plan, modest preemptive measures are clearly desired to forestall significant coastal erosion in lieu of the eventual more massive structures that certainly would be required to protect bluff-top structures in immediate peril.

The September 20, 1999, Staff Report for CDP No. 6-99-103 is consistent with both the City of Solana Beach’s coastal resource policies and those of the California Coastal Act. The November 16, 2000, Staff Report for the subject properties is inconsistent with these policies. In the following paragraphs, these apparent inconsistencies are discussed in the same order as discussed in the Staff Report.

**Geologic Conditions and Hazards – Page 3:** Staff has correctly acknowledged that the northern portion of Solana Beach has experienced extensive coastal erosion since the 1997-98 El Niño storms, resulting in considerable and progressive upper-bluff collapses, exacerbated by the presence of a 10-foot-thick layer of clean sands encountered at the base of the upper, sloping, terrace deposits atop the lower vertical sea cliffs about 25 to 35 feet above sea level. These clean sands are also known to exist beneath the subject properties. Staff goes on to conclude that, “While the subject site and surrounding area is experiencing erosion, the erosion has not progressed to the point where the existing bluff-top residential structures are currently threatened. Therefore, since the residences are not currently threatened, the Commission is not required to approve the notch/undercut infill under Section 30235 of the Coastal Act.”
What is not stated, and clearly an important conclusionary finding contained in the CDP No. 6-99-103 Staff Report follows.

"In reviewing requests for shoreline protection, the Commission must assess the need to protect private residential development with the potential adverse impacts to public resources associated with construction of shoreline protection. In this particular case, the project is proposed as a preventative measure and is not required to protect the existing bluff-top structures. Because the residences are not in danger from erosion at this time, the Commission is not required to approve shoreline protection under Section 30235 of the Coastal Act. However, in numerous past actions, the Commission has found that the filling of sea caves as a preemptive measure, even if not required to protect existing primary structures, is the alternative most protective of coastal resources. This is because although there are impacts associated with filling sea caves [notches], the impacts tend to be fewer and lesser in scale than those that would occur if the sea cave [notch] were allowed to collapse, and seawalls and upper-bluff structures were constructed."

This coastal policy is also consistent with the City of Solana Beach's coastal policies, which were clearly intended to "effectively manage the Solana Beach shoreline and coastal bluffs by providing environmental quality, property protection, public safety and recreation." This is also consistent with the City's policy to "implement a cost effective combination of shoreline and coastal bluff management tactics that will have a positive impact on Solana Beach while maintaining the way of life for its citizens."

**Impacts to Coastal Resources from Shoreline Protection – Page 5:** In this section, Staff clearly recognizes the benefits of modest preemptive measures in lieu of more massive structures, such as seawalls, and also acknowledges that the proposed notch fill project would still have impacts on shoreline sand supply. Staff goes on to conclude that, "Since the proposed fill has not been identified as necessary to protect existing..."
development, the proposed development which will further diminish the supply of sand in the area is inconsistent with Section 30235 of the Coastal Act."

It should also be noted that the California Coastal Commission recognizes that shoreline erosion and bluff retreat are ongoing natural processes. The Commission has jurisdiction over, and permits, the construction of seawalls, cliff retaining walls, and other construction when it is required to serve coastal-dependent uses or to protect existing structures or public beaches endangered from erosion. Section 30235 of the California Coastal Act requires that any construction that "alters natural shoreline processes" shall be permitted to protect existing structures when "designed to eliminate or mitigate adverse impacts on local shoreline sand supply." In recognition of the infill's effectiveness in reducing coastal erosion, and thus sediment production and backshore retreat, the Coastal Commission has developed a sand mitigation fee to compensate the public for these proven and quantifiable impacts of coastal fortification.

The funds collected are used for sand replenishment projects that benefit their respective littoral cell. The sand mitigation fee utilizes a three-part formula to derive the dollar amount of the mitigation fee to be levied for each proposed structure. The formula is based on three proven and quantifiable effects of structures on beach width and sand supply: encroachment, decreasing beach width on a retreating shoreline, and reduction of sand supply from cliff armoring. The formula calculates the cost of the sand that will be needed during the life of the structure to offset these effects. The methodology used to derive the formula is technically sound. One must therefore conclude that the sand mitigation fee, which was developed by the California Coastal Commission (the stewards of the state's coastline), sufficiently mitigates for the loss of beach sand that would derive from naturally eroding coastal bluffs now protected by the infill. The funds are also collected up front for all potential sand loss over the life of the structure; funds that, if amortized over the life of the structure, and let's assume 20 years at 6 percent interest, amounts to a fee in excess of 1.7 times the actual calculated long-term loss.
Alternatives - Page 7: Staff discusses a variety of available alternatives, however, concludes that, "Since the proposed development is not required to be approved, [it] will result in the loss of sand supply and there may be less environmentally damaging alternatives, the Commission finds the proposed development to be inconsistent with Section 30235 and 30253 of the Coastal Act."

In reviewing the Staff Report for CDP No. 6-99-103, it would appear that the following commentary would also be appropriate.

Because the homes are not currently in jeopardy at this time, under Section 30235, a shoreline protective device is not required to be approved by the Commission. Thus, the 'no project' alternative is a potential option in this case. The Commission is faced with a choice between not allowing the fill to be constructed, and having perhaps 1-3 years of bluffs in their natural, unprotected state, with the beaches benefiting from the sand contribution associated with natural erosion and landward movement of the location of the back beach, but with the probable construction of a 35-foot high seawall (with all of the resultant resource impacts) at the end of that time. Or, allowing the filling to occur, which will have noticeable but relatively minimal resource impacts, and would avoid the need for a seawall for perhaps 20 years or more.

The proposed project would not extend beyond the face of the bluff, would erode at a rate similar to the surrounding bluffs, and would occupy area under an overhanging bluff, which is not suitable for public access or recreation. The proposed development has been designed to have the least environmental impact, through use of an erodible concrete fill, and coloring and texturing of the fill. In addition, the applicants have also proposed payment of $16,984 to SANDAG's Sand Mitigation Fee program to help mitigate any remaining impacts of the proposed fill.

As noted above, three of the effects from a shoreline protective device which can be quantified are: 1) loss of the beach area on which the structure is located; 2) the long-term loss of beach which will result when the back beach location is fixed on an eroding shoreline; and 3) the amount of material which would have been supplied to the beach if the back beach or bluff were to erode naturally. Thus, the Commission
has typically required that in order to mitigate the loss of beach material and beach area which occurs over the life of seawall, applicants pay a fee in-lieu of actually depositing beach quality material sand on beaches in the project vicinity. The methodology used to determine the amount of the mitigation fee uses site-specific information provided by the applicant as well as estimates, derived from region-specific criteria, of both the loss of beach material and beach area which could occur over the life of the structure, and of the cost to purchase an equivalent amount of beach quality material and to deliver this material to the beach.

Although there are impacts to sand supply associated with filling seacaves or notches, as discussed above, the Commission has not in the past required payment of an in-lieu fee as mitigation for filling of seacaves or notches because the methodology established for quantifying the impacts of seawalls does not apply in whole to seacave/notch fills. Because they are set within the bluff face, unlike seawalls, seacave/notch fills to not result in a loss of beach area which was otherwise available for public recreational use, and the back of the beach is not permanently fixed if the cave/notch is filled with an erodible mixture. However, the applicants have correctly noted that the proposed infill would reduce the contribution of bluff material to the beach and would slow the natural process of landward movement of the back beach, and thus, have offered a mitigation fee using the same basic criteria established in the seawall mitigation fee. The contribution to sand replenishment projects as a result of the proposed project will have a direct benefit to recreation by increasing beach width, but should also reduce erosion on the project site, thus further delaying the eventual need for a seawall.

The proposed notch fill will represent an alteration of 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 such as the 352-foot long, 35-foot high wall approved by the Commission in August of 1999. The subject site is an area where existing development is not currently jeopardized by bluff retreat, where a relatively minor amount of shoreline protection is still a feasible alternative to a seawall. The applicants have documented that failure to pursue the notch fill is likely to result in
requests for shoreline and/or upper bluff protection in the future which, if permitted, could have a far greater impact on coastal resources than the proposed project. This would be the case even if clean sands are not present on the site. Furthermore, should the beach receive sand in the future, such sand might cover the area of the notchfill should a sand replenishment project be implemented in the future. The impacts of the proposed project have been minimized to the greatest extent feasible. Payment of $16,984 to SANDAG's Sand Mitigation Fee program will mitigate the adverse impacts to sand supply to the extent feasible. A Special Condition requires the applicant to deposit the money as proposed to fund beach sand replenishment efforts.

In addition, as fill of the seacave/notch will reduce the potential for a significant bluff failure, the applicants, the City and the region as a whole will have more time to pursue other non-structural methods, such as beach replenishment, to protect the bluffs and delay the need for more substantial shoreline protection. Therefore, the Commission finds that approval of the proposed notch fill 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.

However, although the Commission finds that the project has been designed to minimize the risks associated with their implementation, the Commission also recognizes the inherent risk of shoreline development. The fill will be subject to wave action and will be adjacent to an eroding bluff. Thus, there is a risk of bluff failure during and after construction of the fill. In addition, there is a risk of damage to the notch fill or damage to property as a result of wave action on the fill. Given that the applicants have chosen to construct the notch fill despite these risks, the applicants must assume the risks. Accordingly, a Special Condition would require that the applicants record a deed restriction that evidences their acknowledgement of the risks and that indemnifies the Commission against claims for damages that may be brought by third parties against the Commission as a result of its approval of this permit. An additional Special Condition would require the applicant to submit a copy of any required permits from the Army Corps of Engineers, to ensure that no additional requirements are placed on the applicant that could require an amendment to this permit.
A Special Condition would also require the applicants to submit final plans for the project indicating that the infill conforms to the bluff contours and to demonstrate that existing irrigation systems within the geologic setback area on the blufftop have been removed, as these would impact the ability of the fill to adequately stabilize the site. In order to monitor the status of the notch fill and to ensure that the fill continues to function as proposed, thus avoiding future requests for more substantial protective devices, another Special Condition would be proposed that 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 notch fill (i.e., whether any significant weathering or damage has occurred that would adversely impact the performance of the notch fill) and measurements of the distance between the face of the notch fill and the bluff face, to ensure the fill material is eroding as designed. The reports must be submitted to the Commission yearly for the first three years, then at three-year intervals and/or following any major storm event, whichever is more frequent. The condition requires that should the notch fill 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.

Another Special Condition would require the permittee to maintain the notch fill; for example, the removal of debris deposited on the beach during construction of the fill or damage to the fill in the future. Minor regrouting or exempt maintenance as defined by Section 13252 of the California Code of Regulations to restore the notch fill to its original condition as approved herein (i.e., color, texture, etc.) shall not require an additional coastal development permit or amendment. However, whenever changes or maintenance on the seacave 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 the notch fill extends seaward of the face of the natural bluff more than six inches, another Special Condition would require that the applicant obtain and implement a coastal development permit to remove the portion extending onto the beach, or to implement other corrective measures. The purpose of this condition is to
Mr. Gary Cannon  
CALIFORNIA COASTAL COMMISSION  
Project No. 1985  

January 11, 2001  

Page 10

ensure that the permittees will remove any portion of the fill that extends seaward of the bluff face pursuant to a coastal development permit. If for an unforeseen reason the Coastal Commission refuses to grant such a permit, the permittee should obtain an amendment to this permit. With removal of any protruding portion of the fill, the notch fill will have only a limited effect on visual and recreational resources. Thus, the Commission can be assured that, as conditioned, the proposed project will function properly, that the fill will be properly maintained and that any adverse impacts to shoreline processes have been or will be mitigated.

An additional Special Condition would require a deed restriction acknowledging that alternative measures must be implemented on the applicants blufftop property in the future, should additional stabilization be required, which would avoid additional alteration of the natural landform of the public beach or coastal bluffs, but would stabilize the principle residential structures and provide reasonable use of the property. The condition will ensure that future property owners will be aware that any future proposals for additional shoreline protection, such as upper bluff stabilization, will require an alternatives analysis. If there are feasible alternatives to shoreline protection that would have less impact on visual quality, sand supply, or public access, the Commission may require implementation of those alternatives.

To assure the proposed fill has been constructed properly, another Special Condition would be proposed. This condition would require that, within 60 days of completion of the project, as built-plans and certification by a registered civil engineer be submitted that verifies the proposed notch fill has been constructed in accordance with the approved plans.

In summary, the existing primary bluff-top structures have not been demonstrated to be in danger from erosion. Therefore, the Commission is not required to approve shoreline protection under Section 30235 of the Coastal Act. However, the proposed notch fill will significantly reduce the potential for bluff collapse and the need for more substantial shoreline altering devices in the future. The project has been designed to have a minimal impact on shoreline processes, and the applicants have proposed to pay a fee to SANDAG for beach replenishment projects. Given the above special
conditions, the risk to the bluff top structures will be reduced with minimal adverse impacts to shoreline sand supply. Therefore, the proposed project can be found consistent with Sections 30235 and 30253 of the Coastal Act.

Visual Resources – Page 8: Staff provides a good discussion on some of the difficulties in constructing coastal fortification having a natural appearance visually compatible with the character of the surrounding areas. Staff then concludes that, “Therefore, the Commission cannot be assured that the proposed development will be designed to effectively mitigate its adverse impacts on the visual resources of the area. In addition, as previously described, several seawalls and sea caves/notch fills have already impacted the natural appearance of the Solana Beach shoreline. Many of these projects were approved with conditions requiring their color and texture be monitored over time in order to evaluate their success at blending in with the natural surrounding bluffs. It would be premature for the Commission to approve additional preemptive notch/undercut fills, until these monitoring studies are complete and have proven successful.”

In reviewing the Staff Report for CDP No. 6-99-103, it would appear that the following commentary would also be appropriate.

The proposed improvements are located at the base of the sea cliff. Undercutting of the bluffs and seacaves are a fairly prominent feature of the shoreline in this area, and filling this area will alter the natural appearance of the bluffs. However, the project has been reduced in-scale such that the highest point of the fill will be set back behind the drip line of the overhanging bluff face at approximate elevation 10 feet. Thus, the current proposal would not completely fill in the notch to its upper limit and the irregular notching and overhanging of the bluffs, which is a defining feature of the natural landform in the area, would not be completely eliminated.

In addition, the notch fill material will be colored and texture to approximate the appearance of the surrounding bluffs. Matching fill material to the appearance of natural bluffs can be a tricky process, as it can take weeks or even months before the material fully cures, and thus it is difficult to tell at the time of application how well the
fill material will blend into the surrounding natural bluffs. Another difficulty is that even once cured, weathering can change the appearance of either the plug or the surrounding bluffs. Thus, even if the notch fill matches the natural bluffs closely one year, several years later there may be a distinct difference in appears.

Given this concern, a Special Condition would require the applicant to submit final plans of the method chosen to color and texturize the fill material, with a color board indicating the color of the fill material. Per another Special Condition, the applicant would also be required to maintain the color of the fill to ensure the material continues to blend in with the surrounding bluffs in the future.

Furthermore, the height of the proposed fill will be low enough that if sand does return to the beaches in this area, or if sand replenishment projects are undertaken, the sand, depending on the total volume, could cover the proposed fill eliminating the visual impact. Three sand replenishment projects have already been approved in Solana Beach, including the on-shore deposition of 570,000 cubic yards of sand on Solana Beach beaches from Cliff Street to Dahlia Street (which including the subject site) associated with the Federal Navy Homeporting project (CD-95-95; CD-29-97). Although the Homeporting project turned out to be infeasible due to factors other than the suitability of Solana Beach as a replenishment site, SANDAG has since sponsored a 2 million cubic yard sand replenishment project with 120,000 cubic yards allocated for Solana Beach to be placed in the Spring of 2001. Placement of 44,000 cubic yards of sand associated with the grade separation/beach nourishment project was approved by the Commission in October 1995 for deposition at Fletcher Cove (#6-94-207) and deposited in 1999. A pilot program for the deposition of approximately 6,500 cubic yards of sand on the beach at Fletcher Cove and 2,000 cubic yards of material at Tide Beach Park was also approved by the Commission in July 1998 (#6-98-68). Through projects such as these, the visual impact of the project could be eliminated entirely. In addition, the applicant is proposing to contribute $16,984 to SANDAG for beach replenishment efforts. If sand returns to the beach, or is placed on the beach through beach replenishment efforts, the fill could be completely covered for as long as the sand remains.
There are numerous seacave plugs along the bluffs in Solana Beach. There are also a number of notch fills north of the subject site. When constructed and maintained to the match the bluffs, these fills, while visible, are relatively inconspicuous and do not represent a significant visual blight. The appearance of the proposed project would be consistent with the various existing fill projects located in the bluffs along the northern stretch of Solana Beach. The proposed fill would be considerably less visually prominent than traditional seawall projects or riprap revetments. The fill has been designed to erode at the same rate as the surrounding bluffs, and if this does not prove to be the case, a Special Condition would require the applicant to apply for a coastal development permit to remove the portion of the fill extending from the face of the bluff. 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 a less than significant level. Therefore, the Commission finds that the subject development is consistent with Section 30251 of the Coastal Act.

It might also be appropriate to point out that the typical language required by the Coastal Commission for other previously approved projects is as follows:

*The Declarants and any and all successor(s) in interest agree to be responsible for all costs incurred in the maintenance of the shoreline defense structure (seawall). Maintenance of the seawall shall include maintaining the color, texture, and integrity. Any change in the design of the seawall or future additions/reinforcement of the seawall beyond minor regrouting or other exempt maintenance, as defined in Section 13252 of the California Code of Regulations to restore the seawall to its original condition as approved herein, will require a Coastal Development Permit. However, in all cases, if after inspection it is apparent that repair and maintenance is necessary, including maintenance of the color of the seawall to ensure a continued match with the surrounding native bluffs, the Declarants shall contact the Commission office to determine whether permits are necessary and*
shall subsequently apply for a Coastal Development Permit for the required maintenance.

This project will ultimately be permitted by the California Coastal Commission, a state agency with a code enforcement group that has significant power and authority. Their legal counsel is the State Attorney General’s office, and collectively they have rather broad powers and authority. In addition to being able to impose a $2,000 per day fine (enough to get anyone’s attention), they have the ability to foreclose on one’s property to perfect an obligation, along with a variety of other legal remedies. We believe it is safe to say that the Commission has and may invoke their authority to ensure that all of the existing and future proposed projects are maintained in perpetuity with a color and texture that suitably blends in with the natural surrounding bluffs.

When comparing this with the significant visual degradation and visual quality associated with significant coastal bluff failures, one must recognize that the visual quality one associates with these coastal bluffs is that of the upper, sloping coastal terrace, along with the sculpted, near-vertical section of the lower sea cliff exposed today well above the deeply-incised basal notch at the toe of the sea cliff. The most detrimental aspect of the lower cliff failures, aside from the eventual need to protect private property, is the collateral damage to the visual landscape of the coastal bluff associated with these significant upper-bluff failures that would occur if the existing notch were allowed to collapse.

Public Access – Page 9: Staff has accurately described the nature of the topography in the area and the fact that this project will not impact public access to the beach via nearby Fletcher Cove. Staff has also accurately characterized the behavior of the proposed infill, saying, “The proposed notch/undercut fill has been designed to erode with the natural bluffs, and thus will not permanently fix the back of the beach.” Staff’s conclusion however is that “the project is designed to prevent the natural blockfalls of bluff material that currently provide sand to the beach in this area. As previously described, the amount of sand along the Solana Beach shoreline is limited, and at times, non-existent. Thus, as the project will result in a further loss of sand, it has the potential for reducing the public’s ability to access the shoreline.”
In reviewing the Staff Report for CDP No. 6-99-103, it would appear that the following commentary would also be appropriate.

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 shoreward edge continues to erode, thereby reducing the amount of dry sandy beach available to the public. In the case of the proposed notch fill, the fill material has been designed to erode with the natural bluffs, and thus will not permanently fix the back of the beach. The fill will not extend beyond the face of the bluff onto sandy beach currently usable by the public.

This stretch of beach has historically been used by the public for access and recreation purposes. A Special Condition could acknowledge that the issuance of this permit does not waive the public rights that exist on the property. The fill may be located on State Lands Property, and as such, another Special Condition would require the applicant to obtain any necessary permits or permission from the State Lands Commission to perform the work. In past projects, the Commission has allowed private applicants constructing shoreline protective devices to use up to 12 spaces in an existing City-owned parking lot across the street from Fletcher Cove known as the "Distillery Lot" [for its previous use] for temporary staging and storage of equipment during construction. In addition, steel-tracked construction equipment (which cannot traverse asphalt streets) has been allowed to be stored upland of the Fletcher Cove access ramp, in an area which is not currently used for parking.

This free, City-owned parking area is within easy walking distance of Fletcher Cove and is currently available to any beach users or patrons of the several small commercial facilities surrounding the lot. However, it is also the only off-street, open area in the vicinity of Fletcher Cove which can accommodate the type of equipment and vehicles required to construct the proposed project, other than Fletcher Cove itself. In addition, the City of Solana Beach has in the past indicated that the lot is used only minimally, and thus has an excess capacity which can be allocated to staging and storage for the project, with only a minimal impact to beach uses.
Therefore, we would include a Special Condition to prohibit the applicants from storing vehicles on the beach overnight, using any public parking spaces other than the 12 Distillery spaces for staging and storage of equipment, and prohibits washing or cleaning construction equipment on the beach or in the parking lot. The condition would also prohibit 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. Therefore, impacts to the public will be minimized to the greatest extent feasible. Thus, as conditioned, the Commission finds the project consistent with the public access and recreation policies of the Coastal Act.

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.

Local Coastal Planning – Page 11: Staff has reviewed the status of the City of Solana Beach’s LCP and gives an historical perspective relative to the County of San Diego and the City of Encinitas. Staff then concludes, “Approval of the proposed project would send a signal that there is no need to address a range of non-structural alternatives to protect existing development. . . . These issues of shoreline planning will need to be addressed in a comprehensive manner in the future through the City’s LCP certification process. In the case of the subject development, this has not been the case. The proposed notch fill along with similar types of notch/undercut areas have not been addressed in a comprehensive manner by either the City or the applicant.”

In reviewing the Staff Report for CDP No. 6-99-103, it would appear that the following commentary would also be appropriate.

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

The bluffs in this section of the Solana Beach coastline are mostly in public ownership and for the most part pristine, devoid of shore and bluff protection structures or private access stairways. Approval of the proposed project should not send a signal that there is no need to address a range of non-structural alternatives to protect existing development.

Within the limits of the proposed project development, with appropriate Special Conditions, the project can be found 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. However, these issues of shoreline planning will need to be addressed in a comprehensive manner in the future through the City's LCP certification process.

California Environmental Quality Act (CEQA) Consistency – Page 12: Relative to CEQA, staff concludes that “The proposed project has been found inconsistent with the resource protection policies of the Coastal Act relating to shoreline sand supply, public access and visual resources. . . . Therefore, the Commission finds that the proposed project is not the least environmentally damaging feasible alternative and cannot be found consistent with CEQA.”
In reviewing the Staff Report for CDP No. 6-99-103, it would appear that the following commentary would also be appropriate.

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

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

ADDITIONAL STAFF CONSIDERATIONS

From our discussions with Coastal Staff, we understand that this apparent change in policy regarding modest preemptive infills of basal wave-cut notches may have originated from the October 10, 2000, Hearing regarding the Pierce/Monroe sea cave/notch infill (CDP No. 6-00-66). That particular project included the infill of both a large sea cave and an adjacent wave-cut notch. In that Hearing, there was considerable discussion regarding the visual appearance of these coastal structures and the track record for mimicking the erosion characteristics of these erodible infills with that of the adjacent natural coastal bluff. Based on the considerable discussion surrounding that project, Commissioner Krueer proposed an amending motion to remove the notch infill from the Staff Recommendation and to approve the proposed
infill of the sea cave. As the Applicant for that project, in attendance at the time, and having reviewed the Commission Hearing transcripts, the Commissioners did not change their fundamental policy in support of modest preemptive measures, but chose to defer their approval of the notch infill pending resolution of several issues regarding visual quality and the erodibility of the infill.

These issues were initially raised by Ms. Sheila Williams, who spoke in opposition to the project, stating among other things that, “I recently did a photo survey of the entire bluff and every single sea cave, every one without exception, has been eroded behind it, over the top of it, and then nobody's down there removing them.” Unfortunately, Ms. Williams was simply misstating the facts and at least the infills that we have designed clearly are erodible. Commissioner Potter then went on to state, “I don't want to drag this into the evening hours, but I do hear something in here that I've never heard of. I have probably poured more concrete personally than anybody in this room, and this erodible concrete aspect of this project and the nature of that, I'm wondering, how are we going to ever see the success of the failure of this project . . . It just flies in the face of concrete. Concrete gets hard. That's its whole purpose.”

These discussions amongst the Commissioners raised certain unanswered questions regarding whether or not the proposed project would function as designed, and ultimately whether or not in the future we would have to “go in and jackhammer the thing out if it turns out it's not working.” One of the Commissioners then recommended that “So for some future discussion, I guess I would like to understand how we go about assessing the viability of different materials to be used under different circumstances so that they erode at the same rate as the bluff.” It was ultimately this line of questioning that motivated Commissioner Krueer to recommend bifurcating the proposed project in order to approve the sea cave infill and defer a decision on the notch infill.

Again, the Commissioners did not oppose supporting modest preemptive measures to forestall significant coastal erosion in the future, necessitating more massive structures that would eventually be required to protect bluff-top structures.
Recognizing the concerns that have been expressed about the visual appearance of the finished surface of the infill, we submit the example of the recently completed 352 foot long, 35 foot high shotcrete seawall immediately north of the subject site. Although numerous projects have been approved, due to the extended process of perfecting all permits and then scheduling construction around tidal lows, weekends, and the summer beach season, this project is the only one so far completed with a surface treatment we consider to be representative of the current state of the art. Photos 1-3 included herein illustrate the surface appearance of the shotcrete wall in front of 249-311 Pacific Avenue and the superior appearance relative to other, older projects which have been the target, sometimes justifiably so, of criticism.

We would also reiterate that with the Commission’s broad powers of enforcement it has great leverage in insuring that infills receive adequate and satisfactorily attractive surface treatments. We would encourage the Commission to exercise these powers of enforcement more liberally rather than allow criticism of past efforts color future decisions regarding the ability of these projects to be constructed with an attractive appearance. Clearly, the technology is available to make these projects attractive and the Commission has everything it needs to assure this result.

Erodible Concrete

The scientific community has been actively engaged in developing numerical models to assess rates of shoreline erosion. Numerical models attempt to address both the landward retreat of the seacliff, and the development of the shore platform. In this simplest expression, predictive cliff-erosion models take the following form (Sunamura, 1977):

\[ \frac{dx}{dt} \propto \ln \left( \frac{f_s}{f_r} \right) \]
where \( \frac{dx}{dt} \) is the horizontal rate of erosion, \( f_w \) is the wave force, and \( f_r \) is the rock resistance, characterized by Sunamura as unconfined compressive strength.

The lower cliff-forming bedrock unit has unconfined compressive strengths ranging from possibly as low as 150 psi, to upwards of 1,000 psi, and the task for us, as designers, is to select an equivalent concrete mix having similar erosion characteristics, which can be characterized by its unconfined compressive strength.

Erodible concrete, although arguably not used within the mainstream concrete industry, has evolved from considerable engineering research and used in a variety of specialty applications. Over the years, development of Controlled Low-Strength Materials (CLSM) has developed into a wide variety of manufacturers, products, and applications. The American Concrete Institute Publication ACI 229R-99 "Controlled Low-Strength Materials" lists several common uses of the material, including utility backfills, structural fill for foundation support, pavement bases, conduit bedding, erosion control, void filling, and bridge rehabilitation. The main characteristic of most CLSM products is the lower proportion of cement in the mixture and the high proportion of fly ash as a substitute for cement. Less cement lowers the strength of the concrete while the added fly ash maintains the workability of the wet mix without adding strength. For applications in coastal engineering, accelerators are also added to achieve a rapid set to resist wave attack from the next incoming tide. Ironically, ACI publication SP-150, "Controlled Low-Strength Materials" warns against using CLSM products above grade "since it does not posses qualities that make it durable against freeze-thaw and abrasion resistance" (pp 3-4).

This very susceptibility to abrasion makes it ideal for use as a notch infill since we want to mimic the erodible characteristics of the adjacent bluff material. We have used the term "erodible concrete" rather than CLSM because it is a descriptive term that better conveys the essential characteristics of the material, i.e. a weak concrete material designed to erode under wave attack so as to recede at approximately the same rate as the adjacent sandstone bluff. Our proposed mix design is the result of consultation with experts at the American Concrete Institute as well as having background education through professional seminars on the subject. With all due respect to persons
unknowledgeable in the subject matter, the proposed infill material is a precisely engineered product, thoroughly tested and proven over the last 30 years in actual construction projects throughout the United States.

All of the above discussion, notwithstanding the concern raised about the possibility of the infill becoming an offensive relic projecting out from a retreating bluff, are readily addressed by Special Conditions requiring monitoring and maintenance. For erodible concrete mix designs of less than 1,000 psi strength, removal of portions of the infill to accommodate a retreating bluff face is quite easily accomplished with hand-held power tools. Subsequent resurfacing and staining required as part of a Special Condition can assure the long-term success of the project from an aesthetic standpoint.

Similarity with CDP No. 6-00-36

This project is also quite similar to the two-lot coastal bluff stabilization project 350 feet to the north, below 311 and 319 Pacific Avenue, where we understand Coastal Staff is currently considering the issuance of an Emergency Permit for coastal bluff stabilization primarily intended to stabilize the significant overhang and rehabilitate a fractured portion of the existing sea cliff. The Corn/Scism project (CDP No. 6-00-36) provides interesting similarities and a perspective on both the City policies regarding preservation of their beaches and bluffs, along with some discussion of the cumulative effects of shoreline erosion problems in the City. The Corn/Scism project includes a significant overhang that, if allowed to collapse, will place the bluff-top residences in immediate peril, along with a fairly significant fracture in the lower sea cliff that resulted from a coastal bluff failure immediately to the north of those properties, further compromising the stability of the sea cliff below 311 and 319 Pacific Avenue. The Corn/Scism project is also slightly different in that both bluff-top residences are only 8 feet from the top-of-bluff, and any failure would place these structures in imminent danger.

The Presnell/Ratkowski project has a similar overhang that will fail in the near future if not stabilized. However, fortunately, the bluff-top residences have significantly larger setbacks (22 feet for 249 Pacific Avenue and 25 feet for 245 Pacific Avenue). The fact
remains that the upper bluff is currently stable and will remain so until the sea cliff overhang collapses. Clean sands are known to exist at the base of the upper, sloping coastal bluff, and if this bluff is allowed to collapse, these clean sands, when exposed, will continue to slough, propagating upper-slope failures up to, and eventually threatening, these bluff-top improvements.

The Corn/Scism property was adversely affected by a significant coastal bluff failure that occurred on February 24, 2000, immediately to the north, again from the collapse of a significant notch at the base of the sea cliff. That collapse of the sea cliff undermined the lower 20 feet of terrace deposits, resulting in a near-vertical scarp extending up to about elevation 45 feet, exposing clean sands and placing the bluff-top structures in immediate peril. The Coastal Commission again issued an Emergency Permit for coastal bluff stabilization below 325 and 327 Pacific Avenue (the adjacent properties to the north) to protect those bluff-top properties. The February 24, 2000, failure below 325 and 327 Pacific Avenue also affected the Corn/Scism properties by fracturing a portion of the lower sea cliff during the failure, further destabilizing the sea cliff below the Corn/Scism properties.

The Presnell/Ratkowski wave-cut notch is approximately 8 feet in depth (the maximum notch depth below Corn is 12 feet), and a significantly larger notch at one time extended to the south, a photograph of which was included in the July 2000 geotechnical investigation report. That photo has been reproduced herein as Photo 4, showing the extensive notch below 235 and 241 Pacific Avenue, which also collapsed on February 13, 2000, eleven days prior to the coastal bluff failure that impacted the Corn/Scism properties. Photo 5 shows the coastal bluff just after the February 13, 2000, failure, again exposing clean sands and placing the bluff-top residences at 235 and 241 Pacific Avenue now at risk. The February 13, 2000, failure also broke off a portion of the overhang below 245 Pacific Avenue (Ratkowski). However, the failure was a clean break, leaving no residual fractures in the sea cliff as today exists below the Corn/Scism properties.

The reality is that, at this time, the coastal bluffs below Corn/Scism and Presnell/Ratkowski have not yet collapsed and the upper terrace deposits below the
subject properties are still reasonably stable. The presence of the wave-cut notches (and the fractured sea cliff below Corn/Scism), however, will collapse within the near future if not stabilized by the currently-proposed respective bluff stabilization measures.

The fact that these sections of coastline have not yet failed indicates both a significant potential for collapse and an opportunity to stabilize these sections of coastline with relatively modest preemptive measures, which is clearly desired to forestall significant coastal erosion in lieu of the eventual more massive structures that certainly would be required to eventually protect these bluff-top structures. The Presnell/Ratkowski notch infill minimizes shoreline encroachment and alteration of natural landforms with a project that is visually compatible with the character of the surrounding coastal bluffs. The infill of the wave-cut notch will also be entirely buried if and when a healthy sand beach is once again restored to the Solana Beach coastline.

The Corn/Scism project represented a high visibility project, with considerable public input and an exhaustive 450-page City Staff report. Council Members and members of the public conducted site visits, and a 4-hour Public Hearing was ultimately held on December 19, 2000, to discuss the merits of this project, along with the larger shoreline erosion problems that are now affecting the City of Solana Beach. It was also the legal opinion of the City Attorney that the City has consistently recognized the importance of their coastal resources and has attempted to balance the protection of vested private property rights while assuring protection of the environmental quality and public safety of those enjoying this most valuable resource. After a 4-hour Public Hearing on this subject, the Solana Beach City Council voted 5-0 to approve the Corn/Scism bluff stabilization project. More importantly, the City of Solana Beach again recognized that modest preemptive measures are clearly desired to forestall significant coastal erosion in lieu of the eventual more massive structures that certainly would be required if these coastal bluffs were allowed to collapse.

As with the Corn/Scism project, the Presnell/Ratkowski project clearly benefits the City's coastal resources by enabling a modest preemptive measure to forestall, and hopefully eliminate, the need for a more massive structure in the future.
It was also recognized that one of the objectives of the City's coastal policies is to "preserve the visual quality of both the upper, sloping coastal bluffs and the lower vertical sea cliffs to the maximum extent possible." With regard to the infill of sea caves and notches, these preemptive measures are clearly superior and preferable to the use of seawalls.

As previously indicated in our September 26, 2000, letter to Coastal Staff, there is no distinction between the preemptive filling of sea caves and notches, and that within the last two years, this is after the 1997-98 El Niño storm season, thirteen additional, fairly significant sea-cliff failures occurred, in all instances resulting from collapses of wave-cut notches and in all instances undermining the upper, sloping terrace deposits, setting into motion a period of ongoing erosion that has clearly reduced the quality of the recreational experience afforded by the City's beaches.

We appreciate your continued support of this project and trust this information adequately addresses concerns raised by both the Commissioners and Coastal Staff regarding the various issues associated with this project. We welcome the opportunity to discuss these issues in more detail, and if you have any questions or require additional information, please feel free to give us a call.

Very truly yours,
GROUP DELTA CONSULTANTS, INC.

Walter F. Crampton, Principal Engineer
R.C.E. 23792, R.G.E. 245

WFC/jf

(3) Addressee
(1) Mr. Keith Presnell
(1) Mr. Don Ratkowski
(1) Ms. Jane Smith, State Lands Commission
(1) Mr. Steve Apple, City of Solana Beach
(1) Mr. Russell Kaiser, U.S. Army Corps of Engineers
PHOTOGRAPHS
Overview of the recently completed naturalized seawall for CDP No. 6-99-100 (adjacent to, and immediately north of, the subject site), which was completed by Boulderscape. This is typical of the architectural quality that can be achieved with naturalized seawalls.
PHOTO 2

Close-up of the interface between the naturalized seawall and the natural coastal bluff, located immediately to the south, for the seawall completed as part of CDP 6-99-100. The subject Presnell / Ratkowski coastal bluff can be seen in the photograph just south of the recently constructed natural seawall. Please note that the actual interface between the naturalized seawall and the coastal bluff, as shown in this photo, can be found directly below the angle point in the fence, visible at the top of the bluff.
PHOTO 3

Close up of architectural surface of the naturalized seawall constructed as part of CDP No. 6-99-100, which is proposed for the Presnell / Ratkowski project.
PHOTO 4

This photograph, taken April 4, 1998, below 235 - 241 Pacific Avenue, shows extensive notch - similar to the precursor to the blockfalls that occurred immediately to the north. The extensive undercutting to the north resulted in upwards of 15 feet of sea-cliff retreat and a 25-foot scarp in the lower portion of the upper bluff below 261 Pacific Avenue (CDP No. 6-99-100), which can be seen in the background.
PHOTO 5

Photo of bluff below 235 - 241 taken February 14, 2000, the day after the collapse of the notch, exposing the 10-foot clean sand layer above the geologic contact, visible at the base of the upper sloping bluff in the photograph. 245 - 249 Pacific Avenue can be seen in the background of this photograph.