CALIFORNIA COASTAL COMMISSION SAN DIEGO DISTRICT OFFICE 7575 METROPOLITAN DRIVE SUITE 103

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Th15a

ADDENDUM

November 3, 2020

To: Commissioners and Interested Persons

- From: California Coastal Commission San Diego Staff
- Subject: Addendum to Item Th15a, Coastal Commission Permit Application #A-6-CII-20-0056 (Cline), for the Commission Meeting of November 5, 2020.

The purpose of this addendum is to attach a response letter from the applicants to the staff report, dated October 30, 2020, and to respond to the applicants' response to the staff report. Staff recommends the following changes be made to the above-referenced staff report. Deletions shall be marked by strikethrough and additions shall be underlined:

1. On page 4 of the staff report, add the applicants' response letter to the staff report dated October 30, 2020 and attached to this addendum as a new exhibit, as follows:

Exhibit 8 – Applicant Response to Staff Report dated October 30, 2020

2. In response to the applicants' assertion that the deck can be restored to its original, pre-Coastal Act configuration because the unpermitted sections of deck are being removed, add the following after the second sentence in the first paragraph on Page 10:

The applicant contends that the deck will be restored to its original, pre-Coastal configuration by removing the unpermitted sections of deck and should therefore be permitted to remain. The modifications to the both the stair and the deck were unpermitted and are in violation of the Coastal Act. Moving the deck back to its original location and reducing its size raises significant issues regarding consistency with the LCP.

3. In response to the applicants' assertions that the concrete steps at the base of the bluff are not a new structure, and that the gunite blanket has not expanded beyond its original footprint, modify the second paragraph on Page 10 of the staff report as follows:

The local approval found that the unpermitted concrete steps and additional gunite layers at the base of the bluff provide public access safety during high tides. The concrete steps were installed for private use. It is unclear whether or not the steps and additional gunite provide meaningful public access, and whether or not this public access would have otherwise existed without the additions. The applicants submitted images that suggest the extent of the existing gunite blanket on the bluff face has not been expanded higher up on the bluff over time (Exhibit 8). However, CCRP aerial images suggest that the footprint of the concrete steps and the gunite/shotcrete added to the pre-existing gunite blanket at the base of the bluff extends seaward beyond the pre-Coastal gunite and rock revetment onto the sandy beach, reducing the area available for public recreation and access (Exhibit 3b). The applicants contend that the concrete steps were simply carved into existing gunite, but CCRP images indicate that they were instead installed with the addition of new concrete beyond the original footprint of the gunite and partly onto the sandy beach (Exhibit 3b). Thus, further information about the extent of the unpermitted gunite and concrete steps and their use by the public is needed in order to demonstrate compliance with Policy 4-1(IV). Therefore, the City's approval raises a substantial issue regarding consistency with the LCP.

4. The applicant asserts that the work done to the pre-Coastal wooden stair constitutes routine maintenance that the city approved after-the-fact pursuant to Section 21.201.070 of the IP. As explained in the third paragraph on Page 10 of the staff report, the city's approval did not review the impacts of the after-the-fact development on coastal resources or public access. Therefore, the local approval raises a substantial issue. In response to the applicant's assertion that the replacement of treads and railings on the stairs constitutes replacement of a portion of a structure "destroyed by a disaster" and is exempt under Section 30610(g) of the Coastal Act, add the following before the last sentence of the third paragraph on Page 10 of the staff report:

The applicant asserts, in the alternative, that the replacement of treads and railings on the stairs constitutes replacement of a portion of a structure "destroyed by a disaster" and is exempt under Section 30610(g) of the Coastal Act (incorporated into the LCP through IP Section 21.201.060). However, the applicant does not identify a disaster that caused the destruction of the pre-Coastal stair.

5. In response to the applicants' assertion that the Coastal Commission deemed the addition of new gunite/shotcrete to be exempt maintenance and repair, add the following after the addition above and before the last sentence in the third paragraph on Page 10 of the staff report:

The applicants also contend that a Coastal Commission letter dated October 20, 1992 deemed the additional gunite to be exempt maintenance and repair (Exhibit 8). However, this letter did not discuss the subject property; it referred to an exemption granted in 1983 for repair to the gunite blanket at 5263 Shore Drive, four houses southeast of the subject property. As such, the City's approval of the structures is inconsistent with the IP and raises a substantial issue.

6. In response to the applicants' assertion that the proposed project is not considered "new development" as defined by the LCP or the Coastal Act, add the following after the last sentence of the final paragraph on Page 12:

However, the existing home is already protected by shoreline protection, including a rock revetment at the toe of the bluff and a gunite blanket on the bluff face. The City's LCP requires new development, including additions to existing homes, to be safe from hazards for the lifetime of the development. The applicant asserts that the proposed addition to the home is not "new development" as defined by the LCP or the Coastal Act that is precluded from requiring shoreline protection.

7. In response to the applicants' assertion that the entire foundation and much of the exterior walls will remain, add the following after the second sentence in the last paragraph on Page 14 of the staff report:

<u>The applicants contend that the entire foundation and much of the exterior walls</u> <u>will remain after the remodel, and that these are "existing structures" entitled to</u> <u>protection. However, the</u> The proposed addition to the existing single-story house would increase the square footage by more than 50%.

8. In response to the applicants' assertion that removal of the gunite/shotcrete shoreline protection would threaten the neighboring residences, add the following after the first sentence of the second paragraph on Page 15 of the staff report:

The applicants submitted a letter from TerraCosta Consulting Group dated January 9, 2020/revised February 7, 2020 (Exhibit 8) that concludes that removal of the shotcrete shoreline protection would "immediately endanger both the north and south neighboring properties by the flanking associated with accelerated erosion of the low elevation terrace deposits." However, it is unclear from this letter whether the geotechnical consultant is referring to removal of the entire gunite blanket or to the shotcrete that was added to the gunite blanket without a permit. The extent of the augmentation is unclear, and additional information is needed to conclude that the neighboring sites are in danger if the augmentation is removed.

9. In response to the applicants' contention that this project is not inconsistent with Coastal Act Section 30235(b) because it does not propose to "construct" a shoreline protective device and the shoreline protection in place here does not

"substantially alter" the natural bluff, add the following before the last paragraph in Section D on Page 15:

Although Section 30235(b) of the Coastal Act is not the standard of review in this case, the applicants point to the requirement in Section 30235(b) that new development be sited and designed so that it does not "require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs." The applicants contend that even if the proposed project qualified as new development subject to this policy, the project is consistent with Section 30235(b) because it does not propose to construct new shoreline protection and the existing gunite blanket does not "substantially alter" the natural bluff and instead covers the bluff, holding it in place. Both assertions are false and misrepresent the purpose and intent of Section 30235(b). The project does appear to include construction of new shoreline protection; the City's approval includes the retention of unpermitted gunite/shotcrete that was added to the existing gunite blanket and which appears to expand the shoreline protection onto the sandy beach. The gunite has clearly "substantially altered" the bluff. The existing gunite blanket encapsulates and protects the bluff face from the natural erosion process, thereby substantially altering the natural landform along this bluff. Finally, as the Commission has routinely found in the past, Section 30235(b) is intended to ensure that development is sited and designed to avoid the need for shoreline protection in the future. A concurrent need for shoreline protection is not required in order to run afoul of this Coastal Act Policy.



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Coastal Property Rights, Land Use & Litigation

October 30, 2020

VIA EMAIL

Chair Steve Padilla Vice Chair Donne Brownsey Honorable Commissioners California Coastal Commission 455 Market Street, Suite 300 San Francisco, California 94105 SanDiegoCoast@coastal.ca.gov

Re: Appeal No. A-6-CII-20-0056 (Cline), Thursday, November 5, 2020, Agenda Item Th15a

Dear Chair Padilla, Vice Chair Brownsey, and Honorable Commissioners:

David and Barbara Cline are a retired couple who purchased the property at 5215 Shore Drive, Carlsbad, with the intent of spending the rest of their years there. They proposed a modest remodel by filling in the interior courtyard and adding a second story to the existing home. They did not propose to expand the exterior footprint of the home or alter the existing foundation. The remodel would comply with the City of Carlsbad's current zoning code in every aspect.

Though having nothing to do with the originally proposed project, Coastal Commission staff in its initial review identified several unpermitted structures on the bluff. In the spirit of cooperation and to bring the entire property into compliance with Carlsbad's local coastal program, the Clines revised their project to include the removal of all unpermitted structures on the bluff.

After an extensive review, the city's planner and engineer found the project consistent with the Carlsbad LCP and recommended approval of a coastal development permit for the project. (See staff report exhibit 4.) The Carlsbad Planning Commission supported their recommendation and approved the project by a unanimous vote. (*Ibid.*)

The proposed project is a very modest and responsible remodel of an existing, pre-Coastal Act structure. None of the purported concerns stated in the staff report establish a violation of the Carlsbad LCP or the Coastal Act. The Commission should find that no "substantial issue" has been raised in this appeal.



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All unpermitted structures will be removed, and the bluff will be restored to its pre-Coastal Act condition.

As noted, all unpermitted structures on the bluff will be removed in connection with the project. These structures are:

- The cantilevered section of the patio directly adjacent to the west wall of the residence;
- The expanded wood deck and spa east of the original existing staircase landing deck, and the stone cladding wall (this portion of the bluff will be restored with a geogrid system and Coastal Commission-approved hydroseed mix);
- The shower area north of the staircase landing deck; and
- The cantilevered section of deck extending west from the staircase landing.

Staff's position is that this is not good enough because the original staircase and deck and gunite/shotcrete shoreline protection must also be removed. Staff is wrong. These structures were installed before the Coastal Act and are thus exempt from any requirement for a CDP. This is undisputed.

Staff nevertheless claims, without citing any provision of the Carlsbad LCP or the Coastal Act, that the staircase and deck have lost their legal nonconforming status because they "have been substantially modified from their original pre-Coastal [Act] configuration without the benefit of a coastal development permit" (Staff report, p. 10.) But the unpermitted sections of the deck are being removed to restore it to its original, pre-Coastal Act configuration.

As to the stairs, the assertion that they have been "substantially modified" is simply false. As shown in the photographs attached to the February 7, 2020, letter by Walter F. Crampton and Braven R. Smillie, enclosed herewith, the stairs have always remained in precisely the same configuration. The only work on the stairs has been to replace unsafe, rotted treads and railings with Trex material. This is routine maintenance that the city properly approved after the fact under section 21.201.070 of the Carlsbad Municipal Code. Alternatively, the replacement of treads and railings on the stairs constitutes the replacement of a portion of a structure "destroyed by a disaster" and is thus exempt under section 30610(g) of the Coastal Act.

The gunite/shotcrete shoreline protection, as noted, was installed prior to the Coastal Act. The Coastal Commission deemed the subsequent addition of new gunite/shotcrete to be exempt maintenance and repair. (See letter from L. Owens to B. Shores, Oct. 20, 1992, enclosed herewith.) The Carlsbad Planning Commission in its August 19, 2020, resolution similarly gave after-the-fact approval for the more recent addition of gunite/shotcrete (and pipes to relieve static water pressure under the gunite/shotcrete) as repair and maintenance.

The suggestion that the shore protection has expanded beyond its original footprint is false. It only appears to have expanded because it was grown over temporarily by vegetation, mostly iceplant. (See letter from W. Crampton and D. Smillie, Feb. 7, 2020, p. 6, and photographs attached thereto.)

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Staff incorrectly argues that, instead of repairing and maintaining the gunite/shotcrete shoreline protection, it should be removed because it does not protect an "existing structure" as required under section 30235 of the Coastal Act. But, as noted, the entire foundation and much of the exterior walls of the existing house will remain after the remodel. These are "existing structures" entitled to protection.

Staff argues that these cannot be considered "existing structures" because the proposed project would remove more than 50% of the currently existing structure and/or increase the total square footage by more than 50%. Though some other cities have a similar rule written into their LCPs, no such rule exists in the Carlsbad LCP, and no such rule can be found in the Coastal Act. Staff's application of this rule is therefore arbitrary and unlawful.

Even if the Clines' house cannot be considered an "existing structure" after the remodel, the neighboring houses are "existing structures." As stated by geotechnical engineers Walter Crampton and Braven Smillie, without any contradiction in the record, "the removal of the shotcrete shoreline protection, in addition to threatening the existing principal structure on site, would also immediately endanger both the north and south neighboring properties by the flanking associated with accelerated erosion of the low elevation terrace deposits." (Letter from W. Crampton and B. Smillie, Feb. 7, 2020, p. 4.) Indeed, the gunite/shotcrete shoreline protection is part of a continuous and integrated system protecting the homes along Shore Drive. It was installed in 1972 after "[s]ome of the properties had their slopes eaten away as much as 8-10 feet during the time of contract negotiations with the owners." (Letter from R. Hackworth, Nov. 15, 1972.) Without such protection, this long-established neighborhood and its infrastructure would entirely disappear. Surely this is the sort of situation the Legislature had in mind when they enacted the Coastal Act's provision that "[r]evetments, ..., seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required ... to protect existing structures or public beaches in danger from erosion"

Finally, the steps at the base of the bluff are not a new structure; they are just steps carved into the existing concrete shore protection. They are used by members of the public to reach the first bluff terrace because at high tide there is very little sandy beach at this location. Such use would be made legal by the City of Carlsbad's condition requiring a 25-foot lateral easement for public access. There is no evidence in the record suggesting that these lower steps have caused any negative impact to the bluff, the beach, or public access. To the contrary, they enhance public access.

The project has been demonstrated to be safe from geologic hazards.

The Clines' geotechnical engineers have certified that the proposed project is safe from geologic hazards, as confirmed independently by the city's engineer. Staff argues that the certification is invalid because the project is "new development" that requires shore protection in violation of section 30253(b) of the Coastal Act.

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While we acknowledge that the project is "development," it is not "*new* development" under any definition that can be found in the Carlsbad LCP or the Coastal Act, as explained above. Rather, it is a remodel of a structure that was built no later than 1953. The entirety of the existing foundation and substantial portions of the above-ground structure are being retained, and the exterior footprint of the house is not being materially expanded. The designation of this project as "new development" is incorrect and arbitrary.

Regardless, even assuming that this project is "new development," it would not run afoul of section 30253(b). Section 30235(b) states that "new development" must not "in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs." But this project does not propose the "*construction*" of any protective device. The shore protection already exists and has existed for decades. Moreover, the existing shore protection does not "substantially alter" the natural bluff. It simply covers the bluff and holds it in place. The analysis in the staff report glosses over this crucial statutory language.

For the foregoing reasons and the reasons explained in the enclosed documents, the proposed project does not violate the Carlsbad LCP or the Coastal Act. The Commission should find no substantial issue has been raised.

Very truly yours,

AANNESTAD ANDELIN & CORN LLP

Lee M. Andelin

cc: Carrie Boyle David and Barbara Cline Walter Crampton Andrew Carlos

Enclosures



Project No. 2983-01 January 9, 2020 **Revised:** February 7, 2020

Geotechnical Engineering Coastal Engineering Maritime Engineering

David and Barbara Cline 2102 East Balboa Boulevard Newport Beach, California 92661

RESPONSE TO COASTAL COMMISSION REVIEW COMMENTS **5215 SHORE DRIVE** CARLSBAD, CALIFORNIA

Dear Mr. & Mrs. Cline:

TerraCosta Consulting Group, Inc. (TerraCosta) is pleased to respond to the California Coastal Commission's (Coastal) October 4, 2019, review comments regarding the proposed remodel and second-story addition to an existing bluff-top single-family residence located at 5215 Shore Drive in Carlsbad, California, Coastal's October 4, letter indicates that the single-family residence was constructed in 1954. However, aerial photographs in our files (U.S. Department of Agriculture Stereographic Aerial Photograph Nos. AXN-8M-100 and 101, flown April 11, 1953; and AXN-14M-17, 18, and 19, flown May 2, 1953) show a total of eight bluff-top residences along Shore Drive at that time, including the subject residence at 5215 Shore Drive and the neighboring residence to the north at 5201 Shore Drive. The earliest California Coastal Records Project (www.californiacoastline.org) photograph, taken in 1972, shows this entire section of coastline already developed, and the base of the bluff already stabilized with shotcrete over a distance of approximately 1,000 feet, with the shotcrete extending about 600 feet south of the subject property and 400 feet north of the subject property. Further northerly, there is an additional 1,200 feet of a rock revetment extending up to the Encina Power Plant, with its main facility located about 2,000 feet north of the subject site.

This section of coastline is somewhat unique in that the geologic contact between the lower cliff-forming geologic unit, the Santiago Formation and the upper more erodible sloping terrace deposits is at approximate elevation +9 feet (NGVD 29), which has resulted in substantial overtopping and erosion of the overlying terrace deposits, necessitating the shoreline stabilization along this section of coastline that appears to

have been constructed in the 1960s concurrently with the original development along this section of coastline.

On November 15, 1972, Accurate Gunite Company wrote a letter (attached) to eight contiguous property owners, including the owner of the subject property, providing an after-the-fact justification for the placement of high-strength gunite to stabilize this section of coastal bluff from ongoing coastal erosion. On November 20, 1972, the City of Carlsbad Public Works Director issued a letter (attached), acknowledging that he had previously visited the site on January 11, 1972, and concurred that the slope protection was a necessary action to protect the properties from further erosion and possible undermining of building foundations. We presume that this acknowledgement from the City of Carlsbad reflected the City's tacit approval of this earlier stabilization work, which in total covered about 2,200 feet of shoreline stabilized prior to the California Coastal Act.

For additional geotechnical site information, the reader is referred to our Geotechnical Investigation and Bluff Stability Study report for the subject property dated October 25, 2017, along with our April 15, 2019, Geotechnical Investigation Update report also for the subject property.

We appreciate the reviewer's comments regarding the "unpermitted bluff work" and have addressed the possible impacts the removal of these structures and "restoration of the bluff face to a natural condition" would have on the bluff stability and public safety. We have restated the reviewer's comments in italics, followed by our responses.

COASTAL COMMISSION COMMENTS

The existing shotcrete shoreline protection at the base of the bluff has clearly been augmented and expanded over time, with the addition of concrete steps between 2008 and 2010 (CCRP) to access the sand and shoreline below this home. The Coastal Commission has no record of permit history associated with any of these improvements.

Thus, the features that staff believe to be unpermitted are as follows:

- 1) Cantilevered/expanded portion of the patio located directly adjacent to the west wall of the home.
- 2) Expanded landing area on the bluff face.



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- 3) Shower area and associated plumbing.
- 4) Retaining wall located mid-bluff that stabilizes the expanded landing area.
- 5) Retaining wall located mid-bluff that stabilizes the shower area.
- 6) New Trex/similar materials on stairs, stair railings, sitting surfaces, ledges, shower area, landing area, and on top of permitted retaining walls.
- 7) Concrete/gunite stairway addition from above rip rap down to existing sand level.
- 8) Additional layers on shotcrete shoreline protection on the bluff face.
- 9) Drainage pipes and rebar located in new shotcrete shoreline protection.
- 10) Stone cladding on permitted and unpermitted retaining walls.

There are generally two ways in which unpermitted development can be authorized. The first is for the applicant to request after-the-fact approval of the unpermitted development, and the second is removal of the unpermitted development.

COASTAL COMMISSION RECOMMENDATIONS

The unpermitted bluff work appears to be inconsistent with the LCP policies prohibiting development and grading on the face of the bluff that does not provide public beach access.

Therefore, in order to ensure consistency with the LCP, Commission staff recommend that your project incorporate removal of all unpermitted development, and restoration of the bluff face to a natural condition. Although some of the improvements appear to have been constructed prior to passage of the Coastal Act, because they have been substantially altered without benefit of a coastal development permit, these structures can no longer be considered legally non-conforming, and cannot be restored to the previous configuration. If the unpermitted development on the site is not addressed and resolved through the City's permit, it may result in the project being appealed to the Coastal Commission.

As stated in our Geotechnical Investigation and Bluff Stability Study, our coastal bluff stability analysis indicated that, in its current condition, this coastal bluff slope is considered stable. However, any alteration of its current state by removal of all "unpermitted" development would render the medium dense friable terrace deposits susceptible to instability and erosion.

Furthermore, removal of the pre-Coastal Act shotcrete shoreline protection would completely expose the bluff face to the significant coastal erosion experienced in the 1960s and early 1970s. This section of coastline experienced considerable erosion in the 1960s, necessitating the shoreline stabilization that was placed prior to the Coastal Act



and approved by the City of Carlsbad. As indicated in the City's Certified Local Coastal Program (LCP), specifically Section 21.204.110 4b of the Coastal Shoreline Development Overlay Zones:

"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."

Notably, both the existing residence and the existing shotcrete shoreline protection predate the Coastal Act and the shotcrete shoreline protection is currently necessary to protect the existing residential structure. Moreover, the removal of the shotcrete shoreline protection, in addition to threatening the existing principal structure on site, would also immediately endanger both the north and south neighboring properties by the flanking associated with accelerated erosion of the low elevation terrace deposits.

Notably, this lower pre-Coastal Act shotcrete shoreline protection protects not only the lower elevation sea cliff below +9 feet, but also provides protection for the lower formational shelf rock between the sea cliff and the more landward sloping terrace deposits, which results in a lower relatively stable mid-slope bench that allows the public a temporary refuge from any waves that might break on the face of the stabilized coastal bluff. This 15+ foot wide stabilized bench is utilized by the public most every day during high tide periods, not only to escape oncoming waves, but to spend a few minutes, and often upwards of 30 minutes, sitting on the lower stabilized landing before continuing either upcoast or downcoast. Again, this area is used by the public many times each week, by providing a "safe harbor" for people to temporarily escape a dangerous set of waves. Moreover, Section 30253 of the Coastal Act notes that new development shall minimize risks to life and property in areas of high geologic, flood, and fire hazard. The lower shotcrete-covered shelf rock satisfies this level of significantly increased life-safety to the beach-going public.

As discussed above, the removal of the concrete/gunite stairway addition from above the riprap down to the existing sand level also poses a threat to the safety of the beach-going public by eliminating access to a safe harbor during periods of any high wave activity, along with the occasional set of higher waves that shoal onto the shore face. This lower stairway significantly improves the access to the lower stabilized landing and the



stairway also conforms to Section 30253 of the Coastal Act, minimizing risk to life for the benefit of the beach-going public.

Consistent with the other properties along this 2,200-foot-long section of coastal bluff, and in recognition of the public benefits provided by the lower concrete landing (which notably pre-dates the Coastal Act), we are requesting an after-the-fact approval of Item Nos. 6, 7, 8, and 9 listed on Page 2 of Coastal's October 4, 2019, review letter (and restated above). We believe that all of these items comply with the City LCP Section 21.204.110 4b, and Section 30253 of the Coastal Act, are consistent with the adjacent and nearby coastal bluff armoring along this 2,200-foot-long section of coastline.

Per Coastal Staff's recommendations, the Applicant is agreeable to remove the unpermitted development described in Item Nos. 2 through 5 listed on Page 2 of the Coastal's October 4, 2019, review letter (and restated above). The retaining walls described in Items 4 and 5 were each constructed adjacent an approximately 3-foot-high vertical cut made into the mid-bluff medium dense friable terrace deposits, with the removal of these two walls creating two approximately 3-foot-tall unstable vertical cuts in the terrace deposits. In recognition of the 3-foot vertical cuts that would remain after removal of these two walls, we are respectfully requesting that the Applicant be allowed to cut back the slope to an inclination of 0.5 to 1 (horizontal to vertical) and then further stabilize the cut slope with a Geobrugg TeccoTM 65 Slope Stabilization System covering a geomat (Italgrimp PPSO-RF20 Green) with a Coastal Commission-approved coastal hydroseed mix applied to any exposed soil. This product was recently approved by Coastal Commission Staff for use on a project in San Elijo Lagoon. Literature on the Geobrugg product is attached.

Photographic Details of Property

The project architect, Carlos Architects, Inc., prepared the attached five-sheet set of drawings, illustrating the project history, with Sheets 2 through 5 referencing the relevant California Coastal Records photographs, which well illustrate the significant shoreline stabilization efforts along this portion of the Carlsbad coastline prior to the adoption of the Coastal Act. Sheets 2, 3, and 4 show the relatively extensive pre-Coastal Act development through and beyond 1989, while Sheet 5 shows the unpermitted improvements cited by the Coastal Commission, and specifically those referenced as



Items 2 through 5, which the Applicant is agreeable to remove and restore the coastal bluff, as requested by Coastal Staff. As indicated previously and as shown on Sheet 5, the Applicant is requesting the after-the-fact approval of the minor patio extension adjacent the west wall of the home, which is consistent with existing patios adjacent the residence, both north and south of the subject property (see Sheet 1 of 5).

Coastal Commission Staff Project Summary

In the opening statement of the Coastal Staff's October 4, 2019, review letter, they indicate that the bluff armoring has "clearly been augmented and expanded over time." While we agree that the lower stairs to the beach were added circa 2006 without the benefit of a permit, we take exception to Coastal Staff's characterization of the areal extent of the shotcrete covering the lower portion of the bluff. As indicated above, and as shown on Sheets 2 through 5, the approximate extent of the shotcrete shoreline protection on the bluff face has remained constant since it was first photographed in 1972 and reproduced on the California Coastal Records website. There has, in fact, been no change in the lateral extent of the shotcrete shoreline protection on the bluff face since the inception of photographic reports available on the www.californiacoastline.org website. While there has been no expansion of the shotcrete covering, there has, over the past 40+ years, been some minor maintenance and repair consistent with the City of Carlsbad's original tacit approval of the original stabilization work and reported in their attached November 20, 1972, letter, concurring that the slope protection was a necessary action to protect the properties from further erosion and possible undermining of building foundations.

RESPONSE TO ADDITIONAL COMMENTS

Evidence of past or potential landslide conditions, the implication of such conditions for the proposed development, and the potential effect of the development on landslide activity.

As indicated in our Geotechnical Investigation and Bluff Stability Study, our document search did not reveal reports of any deep-seated landslides on, or immediately adjacent to, the site. However, it must be noted that the upper-bluff face over these several neighboring properties in the area supports our belief that surficial failures in the



relatively clean sands of the upper-bluff coastal terrace deposits have been a continuing long-term geotechnical problem for homeowners. Disturbance of these clean, friable sands during removal of unpermitted structures may lead to future surficial failures.

That the proposed development is in conformance with the Certified Local Coast Program and all applicable policies in that...

We understand that with possible minor exceptions, the planned remodel and secondfloor addition will be confined within the footprint of the existing single-story woodframed residential structure. This proposed development will not require disturbance to the coastal bluff face to accomplish construction. Any grading and excavation shall be the minimum necessary to complete construction and will be limited to the upper building pad alone.

The proposal is in conformity with the public access and recreation policies of Chapter 3 of the Coastal act in that...

Section 30253 Minimization of adverse impacts. 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.

To reiterate, the planned remodel will be confined within the existing residential structure footprint, therefore, construction activities will pose no threat to public safety. In addition, protective devices already exist to provide stability to the coastal bluff, so no further alteration of natural landforms will be required if the devices are allowed to remain in place.

Section 30211 Development not to interfere with access. Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.

As previously stated, in its current condition, this coastal bluff slope is considered stable. However, any alteration of its current state by removal of all "unpermitted" development would render the medium dense friable terrace deposits susceptible to instability and



erosion thereby increasing the threat to public safety by influencing the occurrence of future bluff failure.

In its present state, the existing limits of the shotcrete shoreline protection do not encroach upon the transient sand beach to which the public has access during times of lower tides. The removal of the concrete steps incorporated into this shoreline protection would impose a threat to public safety if a beach goer were to require immediate egress from oncoming waves.

The project is consistent with the provisions of the Coastal Resource Protection Overlay Zone (Chapter 21.203 of the Zoning Ordinance) in that the project will adhere to the city's Master Drainage Plan, Grading Ordinance, Storm Water Ordinance, BMP Design Manual and Jurisdictional Runoff Management Program (JRMP) to avoid increased urban runoff, pollutants, and soil erosion. No steep slopes or native vegetation is located on the subject property and the site is not located in an area prone to landslides, or susceptible to accelerated erosion, floods, or liquefaction.

Finally, the project site in its current state complies with the City of Carlsbad Coastal Resource Protection Overlay Zone. All drainage has been designed to decrease soil erosion and avoid urban runoff. No doubt, designs for the remodel within the existing structure's footprint will improve upon the existing drainage. And, of course, all necessary BMP's will be adhered due during construction activities.

If you have any questions or require further information, please do not hesitate to give us a call.

Very truly yours,

TERRACOSTA CONSULTING GROUP, INC.

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

WFC/BRS/ar Attachments

Braven R. Smillie, Principal Geologist C.E.G. 207, P.G. 402

TerraCosta

cc: Mr. Andrew Carlos AIA (info@andrewcarlosarchitect.com)

ACCURATE GUNITE CO.

1286 Pioneer Way El Cajon, Calif. 92020 -Phone 442-0994

November 15, 1972

TO WHOM IT MAY CONCERN: Subject: Ocean Front' Property at the following addresses:

Hanes Tstates, 5715 Shore Drive, Carlsbad Roy Josepho, 5779 Shore Drive, Carlsbad Reed Cochran, 5243 Shore Drive, Carlsbad James Winslow, 5757 Shore Drive, Carlsbad Mrs. E. C. Pedley, 5263 Shore Drive, Carlsbad 5307 Paul Ecke, 5309 Carlsbad Blvd., Carlsbad N. P. Maurer, 5308 Carlsbad Blvd., Carlsbad

Because of severe erosion located at the rear of above mentioned properties; our company entered into a contract agreement with these property owners to stop the erosion. Guided by our experience in such matters, we decided that the situation could be corrected by covering the existing slopes with high strength gunite. The obvious damage caused by high tides, the lack of sand which was washed away, and the continuous pounding of tons of beach stones needed immediate attention. Some of the properties had their slopes eaten away as much as 8-10 feet during the time of contract negotiations with the owners. Time being of the essence we designed what we felt would be a sound and secure sea wall that would eliminate the problem and presented it to the property owners. Cur plan was accepted, We began work immediately. As of this date we have heard of no futher damage.

Sincerely yours,

ACCURATE GUNITE COMPANY

R. L. Hackworth, President

RLHidg

All Types of Gunite Construction

INTO ELM AVENUE CARLSBAD, CALIFORNIA 92008



TELEPHONE: (714) 729-1181

City of Carlsbad

November 20, 1972

TO WHOM IT MAY CONCERN:

This letter will confirm that the undersigned visited the Odean Front Properties listed on the attached letter on January 11, 1972 and concurs that the slope protection was a necessary action to protect the properties from further erosion and possible undermining of building foundations.

HTC /JS/dw

Hunter T. Cook Public Works Director



RONALD WEISS

LOS ANGELES DISTRICT

300 NO LOS ANGELES STREET P. O. BOX 2711 LOS ANGELES. CALIF 90053

PHONE (213) 688-5407



LEGEND NUMBERING FOLLOWS THE NUMBEREDLIST PROVIDED BY COASTAL STAFF IN THEIR OCTOBER 4, 2019, LETTER. LETTERED ITEMS REFER TO OTHER ITEMS DISCUSSED IN OUR LETTER.

LEGEND

1) CANTILEVERED/EXPANDED PORTION OF THE PATIO LOCATED DIRECTLY ADJACENT TO THE WEST WALL OF THE HOME.

2) RECENT UNPERMITTED ELEVATED WOOD DECK EXTENSION TO BE REMOVED AND BLUFF RESTORED TO NATURAL CONDITION TO REMAIN.

3) RECENT UNPERMITTED SHOWER AREA AND ASSOCIATED PLUMBING TO BE REMOVED AND BLUFF RESTORED TO NATURAL CONDITION.

4) RECENT UNPERMITTED RETAINING WALL LOCATED MID-BLUFF TO BE REMOVED AND BLUFF RESTORED TO NATURAL CONDITION.

5) RECENT UNPERMITTED RETAINING WALL LOCATED MID-BLUFF THAT STABILIZES THE EXPANDED SHOWER AREA TO BE REMOVED AND BLUFF **RESTORED TO NATURAL CONDITION.**

BENCH AREA.

8.1) LINE OF SHOTCRETE SHORELINE PROTECTION ON BLUFF FACE.

10) ARCHITECTURAL STONE CLADDING ON PERMITTED RETAINING WALL.

A) RIP RAP.

7) SAFE HARBOR STAIR ACCESS FROM BEACH TO LOWER STABLE





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LEGEND NUMBERING FOLLOWS THE NUMBEREDLIST PROVIDED BY COAS STAFF IN THEIR OCTOBER 4, 2019, LETTER. LETTERED ITEMS REFER TO OTHER ITEMS DISCUSSED IN OUR LETTER. 6.1) LOCATION OF WOOD CONSTRUCTED STAIR. 6.2) ELEVATED WOOD DECK. 6.3) CONCRETE WALK. 8.1) LINE OF SHOTCRETE SHORELINE PROTECTION ON BLUFF FACE. A) RIP RAP.

LEGEND NUMBERING FOLLOWS THE NUMBEREDLIST PROVIDED BY COASTAL STAFF IN THEIR OCTOBER 4, 2019, LETTER. LETTERED ITEMS REFER TO OTHER ITEMS DISCUSSED IN OUR LETTER.





PROJECT: CLINE RESIDENCE ADDRESS: 5215 SHORE DRIVE CARLSBAD, CA 92008 DESCRIPTION:RESIDENTIAL REMODEL AND ADDITION

REVISIONS

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- 6.2) ELEVATED WOOD DECK.
- A) RIP RAP.

B) START OF OVERGROWTH ON SHOTCRETE SHORELINE PROTECTION.

6.1) LOCATION OF WOOD CONSTRUCTED STAIR.

8.1) LINE OF SHOTCRETE SHORELINE PROTECTION ON BLUFF FACE.

LEGEND





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- 6.2) ELEVATED WOOD DECK.
- A) RIP RAP.

6.1) LOCATION OF WOOD CONSTRUCTED STAIR.

8.1) LINE OF SHOTCRETE SHORELINE PROTECTION ON BLUFF FACE.

B) CONTINUED OVERGROWTH ON SHOTCRETE SHORELINE PROTECTION.

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1) CANTILEVERED/EXPANDED PORTION OF THE PATIO LOCATED DIRECTLY ADJACENT TO THE WEST WALL OF THE HOME. TO BE REMOVED.

2) RECENT UNPERMITTED ELEVATED WOOD DECK EXTENSION TO BE REMOVED AND BLUFF RESTORED TO NATURAL CONDITION.

3) RECENT UNPERMITTED SHOWER AREA AND ASSOCIATED PLUMBING TO BE REMOVED AND BLUFF RESTORED TO NATURAL CONDITION.

4) RECENT UNPERMITTED RETAINING WALL LOCATED MID-BLUFF TO BE REMOVED AND BLUFF **RESTORED TO NATURAL CONDITION.**

5) RECENT UNPERMITTED RETAINING WALL LOCATED MID-BLUFF THAT STABILIZES THE EXPANDED SHOWER AREA TO BE REMOVED AND BLUFF RESTORED TO NATURAL CONDITION.

6.1) LOCATION OF WOOD CONSTRUCTED STAIR PRE-COASTAL ACT. REFER TO 1972 IMAGE. REQUESTING AN AFTER-THE-FACT PERMIT FOR THE REPAIR OF THE STAIRS AND LANDING.

6.2) EXISTING ELEVATED WOOD DECK PRE-COASTAL ACT. WE WILL REDUCE THE LANDING SURFACE AREA TO CONFORM APPROXIMATELY TO THE HISTORICAL PHOTOGRAPHIC RECORD DEPICTED IN 2004 IMAGE.

7) SAFE HARBOR STAIR ACCESS FROM BEACH TO LOWER STABLE BENCH AREA. WE ARE REQUESTING AN AFTER-THE-FACT PERMIT FOR THE CONCRETE STAIRWAY ADDITION AND ADDITIONAL LAYERS OF SHOTCRETE SHORELINE PROTECTION ON THE BLUFF FACE.

8.1)LINE OF SHOTCRETE SHORELINE PROTECTION ON BLUFF FACE. LIMIT CONSISTENT WITH THAT DEPICTED ON 1972 COASTLINE IMAGE.

10) ARCHITECTURAL STONE CLADDING ON PERMITTED RETAINING WALL. TO BE REMOVED.

10.1) PERMITTED(1974) RETAINING WALLS TO REMAIN.

A) RIP RAP, REFER BACK TO 1972 IMAGE.

B) CONTINUED OVERGROWTH OF PLANT MATERIAL CONCEALING LIMITS OF SHOTCRETE SHORELINE PROTECTION.

C) STABLE LOWER BENCH AREA- REQUESTING AN AFTER-THE-FACT PERMIT FOR STABLE LOWER BENCH AREA AND ADDITIONAL LAYERS OF SHOTCRETE SHORELINE PROTECTION ON THE BLUFF FACE.





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REVISIONS







TECCO®/SPIDER® systems made of high-tensile steel wire

SUSTAINABLE SLOPE PROTECTION

Natural hazards such as torrential rain and earthquakes increase the threat of unstable slopes. More and more regions worldwide are being developed and transportation routes are extended at an enhanced rate. The sustainable stabilization of slopes is essential to assure a safe and economic development.

FOR THE MOST VALUABLE

For over 20 years, we have been a pioneering developer and manufacturer of slope stabilization systems made of high-tensile steel wire nets and meshes. Today we offer with the **TECCO® SYSTEM³** and **SPIDER®** system a solution range that has proven itself over and over around the world. Starting in the planning phase your project can be developed specifically with our **RUVOLUM® dimensioning software**. This leads to an efficient solution and significantly safer slopes.

WE CAN PROVIDE YOU WITH THE COMPLETE SAFETY PACKAGE.

At your request we can take on the role of **consultant**, **planner** and even **project manager**. Both the solutions we offer and the quality of our customer service is valued by our customers. For us excellent service is an integral part of every single project. No matter which phase of the project you are in, we will provide you with the support and expertise required to achieve the best results – saving you both time and money.



THE FITTING SOLUTION FOR EVERY SLOPE.

ion of the TECCO[®] SYSTEN

TECCO[®] mesh is made out of high-tensile steel wire with a diameter of 2, 3, or 4 mm. It can be used to stabilize virtually any kind of slope, whether it consists of rock or loose soil. Combined with three different sizes of spike plates, TECCO[®] meshes offer variable soil nail grids. By dimensioning nail spacings, the installation becomes more cost-efficient. The SPIDER[®] system with a spiral rope net, reliably secures loose blocks, weathered rock, rock outcrops and overhanging blocks. Together, these systems offer maximum flexibility when planning and an attractive price/performance ratio in execution.

OUR SOLUTIONS: SAFE, SUSTAINABLE, EFFICIENT.

Three TECCO® mesh types and the SPIDER® spiral rope net, combined with spike plates and the RUVOLUM® dimensioning tool offer a complete solution. You will benefit from the result of components working in harmony, with decisive advantages compared to conventional solutions such as shotcrete walls, gabion hexagonal meshes and heavy gauge wire nettings. Key benefits are the efficient installation process combined with a system-wide dimensionable solution that is both visually aesthetic and long lasting.



Above: SPIDER[®] on rock slopes

The spiral rope made of three twisted, high-tensile steel wires is characterized by its high puncturing resistance. At the same time it is unobtrusive and can be tightly secured around protruding rock boulders.

Right: TECCO® SYSTEM³ in soil

The mesh surface is easily seamed together without the need to overlap panels which results in efficient use of mesh material without any waste.





Above and right: TECCO® SYSTEM³ installed on rock slopes

Pretensioning the mesh helps it adapt closely to the topography and prevents unwanted material accumulations. The soil nail grid is dimensioned based on the geotechnical parameters.



HIGH-TENSILE STEEL WIRE FOR SUSTAINABLE STABILIZATION.

TECCO[®] SYSTEM³ and SPIDER[®] system – the right solution for any slope

Our systems are particularly characterized by their adaptability: parameters such as slope angle, geological conditions or aspired nail pattern can be ideally balanced and optimized. To secure rock blocks and boulders, our **TECCO**[®] meshes are complemented by the **SPIDER**[®] spiral rope net.

With the specially developed dimensioning tool **RUVOLUM**[®], you can quickly determine the best system configuration, within the entire range from rock to loose soil.



Example: Slope stabilization with the TECCO® SYSTEM³ or the SPIDER® system



QUALITY YOU CAN RELY ON.

Compared with conventional protection methods, our systems use the highest strength-to-weight ratio possible to create solutions that are guaranteed to be exceptionally stable and visually appealing. The **TECCO® SYSTEM**³ offers a range of **three different wire diameters** along with three different types of spike plates to optimize the best solution for every kind of slope. As an option, we offer the **SPIDER® System** based on a spiral rope net. Both solutions can be adapted to suit local site conditions and thus meet the high requirements for securing surface instabilities as a complete system.

The TECCO® SYSTEM³ and the SPIDER[®] system provide the following features:



High-tensile steel wire

One single wire has a tensile strength of more than 1770 N/mm² limiting elongation and keeping the mesh highly pre-tensioned, providing reliable stability for the slope and minimizing deformations.



Harmonized system

Each system element is designed to work in perfect harmony with the rest, ensuring that the forces are transferred efficiently over the entire system. The dimensioning is carried out with our free dimensioning software RUVOLUM[®].



Rhomboid mesh wire structure

Our unique mesh shape transfers forces to the nails very efficiently, preventing deformation within the system. The mesh provides the best possible stability for the geological conditions on site and can be tightly secured even on irregular terrain.



Knotted ends

These ensure that maximum stability is retained right up to the border edges, removing the need for overlap and allowing the mesh and netting to be unrolled easily and independently.



Lightweight

The high-tensile steel wire's outstanding strength-to-weight ratio makes transport and installation easier. Unstable slopes are given long-term stability with minimal impact on nature and with low CO_2 footprint.



Smaller mesh width for soil

TECCO® G45/2 with a smaller opening size and 2 mm wire diameter is unobtrusive and stabilizes slopes with fine material structure. The mesh parameters synchronize with the P25 spike plate and the other components of the TECCO® product family.



Corrosion protection

With GEOBRUGG SUPERCOATING[®] or GEOBRUGG ULTRACOATING[®] our systems are designed to last for generations and require very little maintenance. For particularly demanding environments we offer our products in stainless steel or with PET coating.

THE RUVOLUM® ONLINETOOL -FOR TECCO[®] SYSTEM³ AND SPIDER®-GEOBRUGG Satety is our nature Mesh and spike plate type SYSTEM TI.CCOB 0553 = F31 About nating 11 1.00 = = PROME #1 271 3 m or so true of these is a long of the 14 (20)月1(1) - 0.0 Man 4- 1.1 - Des en 4,0 123 2 mgm+s CH 10711 CH 10 011 Yet 20.0 - Migral Hat types . Demants of the syste

Romanshorn, Switzerland: Dime

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The RUVOLUM[®] online tool is the free dimensioning software for our slope stabilization systems. Depending on geotechnical parameters implemented, this tool determines the forces and loads acting on the mesh and at the anchor points. As a result it provides reliably the static verification for the overall solution.

RUVOLUM[®]: THE DIMENSIONIG SOFTWARE FOR INSTABLITIES NEAR THE SURFACE.

For determining the forces acting within a stabilization system, Geobrugg developed the RUVOLUM[®] online tool to assist engineers and planners.

RUVOLUM[®] provides the static verification of the system:

- Puncturing of the mesh
- Combined loads on the nails and anchors
- ► Shearing of the mesh on the upper edge of the spike plate
- ► Forces parallel to the slope which can be transmitted from the mesh onto a nail

If necessary RUVOLUM[®] considers the following load cases:

- ▶ Earthquake
- Streaming ground water pressure

The dimensioning base of the $RUVOLUM^{\ensuremath{\circledast}}$ model.

Local instabilities between the nails

Where local slope instabilities occur between the soil nails, RUVOLUM® calculates the ability of the high-tensile steel mesh to resist shearing-off at the spike plate interface.

1 Instabilities near the surface and parallel to the slope

The nails must detain the material from mobilizing. The number and layout of the nails can be dimensioned according to the forces calculated based on soil properties, slope angle, seismic loading and streaming pressure.

2 Global instability

Soil nailing for deep seated slope failures is additionally dimensioned with slope stability methods and compared with the RUVOLUM® results.





The TECCO® SYSTEM³ and the SPIDER® system provide a higher level of protection as conventional protective covering, at the same time requiring significantly reduced numbers of nails. This lowers the total project costs and shortens the installation time.

We provide you RUVOLUM[®] free of charge on http://applications.geobrugg.com

Mesh costs Nailing costs

WE DON'T LEAVE SAFETY TO CHANCE

Our systems are developed at our headquarters in Romanshorn, Switzerland. They are tested in collaboration with independent research institutes and under the supervision of accredited certification bodies. In a worldwide unique real-scale test setting with varying layouts, it has been proven that our TECCO® SYSTEM³ transmits the forces of the slope to the soil nails perfectly.

We have used the results of these tests to verify and further develop our **RUVOLUM®** dimensioning tool.

GEOBRIL

Safety is our nature

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TECHNICAL DATA:

SPECIFICATION	TECCO [®] G45/2	TECCO [®] G65/3	TECCO® G65/4	SPIDER® S3-130
ETA approval no.	Pending	ETA-13/0405	ETA-13/0406	ETA-13/0477
CE no.	Pending	1301-CPD-0899	1301-CPD-0900	1301-CPD-0913
Wire diameter	2.0 mm	3.0 mm	4.0 mm	3 x 3.0 mm
Mesh width	48 mm	65 mm	63 mm	143 mm
Steel wire tensile strength	≥ 1770 N/mm ²	≥ 1770 N/mm ²	≥ 1770 N/mm ²	≥ 1770 N/mm ²
Deformation/maximum tensile force (in acc. with test reports)	6.5%/85 kNm ⁻¹	6.5%/150 kNm ⁻¹	7%/250 kNm ⁻¹	8%/220 kNm ⁻¹
Roll edge (mesh ends)	knotted	knotted	knotted	knotted
Roll dimensions (width x length)	3.9 x 30 m	3.9 x 30 m	3.5 x 20 m	3.5 x 20 m
Total area per roll	117 m ²	117 m ²	70 m ²	70 m ²
Weight per roll	135 kg	193 kg	231 kg	182 kg
Weight/m ²	1.15 kg/m ²	1.65 kg/m ²	3.3 kg/m ²	2.60 kg/m ²
Corrosion protection	SUPERCOATING ULTRACOATING	SUPERCOATING ULTRACOATING* Stainless steel PET coating*	SUPERCOATING ULTRACOATING*	SUPERCOATING

LOAD-BEARING RESISTANCES	P25/P33 SPIKE PLATE	P33/P66 SPIKE PLATE	P33/P66 SPIKE PLATE	P33/P66 SPIKE PLATE
Bearing resistance of the mesh against puncturing ($2xP_{R}$)	80 kN/110 kN	180 kN/240 kN	280 kN/370 kN	230 kN/300 kN
Bearing resistance of the mesh against slope-parallel tensile stress (Z_R)	10 kN/10kN	30 kN/45 kN	50 kN/75 kN	45 kN/70 kN

*Not available in all markets. Please contact your local representative.

We reserve the right to make technical changes.





PETE WILSON, Governor

STATE OF CALIFORNIA-THE RESOURCES AGENCY

CALIFORNIA COASTAL COMMISSION

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

October 20, 1992

Barbara Shores The Shores Company P.O. Box 234089 Leucadia, CA 92023-4069

Re: Coastal Development Permit No. 6-92-122

Dear Ms. Shores:

This letter serves to verify that subsequent to the the staff report dated July 14, 1992, Mr. and Mrs. Watson submitted evidence for the file that an exemption was granted by this office on October 19, 1983 to Lyndon J. Watson for repair to an existing gunite blanket on the subject site. From this information, it can be ascertained that the gunite blanket referenced in the Administrative Permit was installed prior to the passage of the Coastal Act of 1976. Therefore, any reference in the permit indicating that separate enforcement action will be pursued is hereby nullified. The permit record has thus been modified accordingly.

Thank you for your patience in this matter. If I can be of further assistance please do not hesitate to call me at the Commission's San Diego office.

Sincerely,

aurinda R. Quent

LAURINDA R. OWENS Coastal Planner

(4242L)

