

CALIFORNIA COASTAL COMMISSION

SAN DIEGO AREA
7575 METROPOLITAN DRIVE, SUITE 103
SAN DIEGO, CA 92108-4402
(619) 767-2370



W11a

Addendum

January 9, 2012

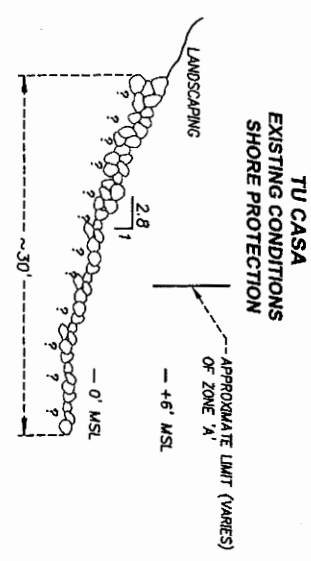
To: Commissioners and Interested Persons

From: California Coastal Commission
San Diego Staff

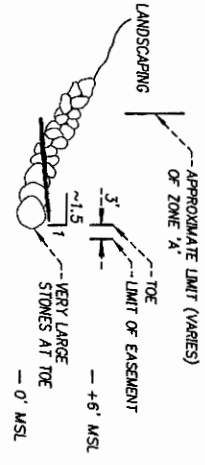
Subject: Addendum to **Item W11a**, Coastal Commission Permit Application
#6-10-16 (Tu Casa), for the Commission Meeting of January 11, 2012

Staff recommends the following changes be made to the above-referenced staff report:

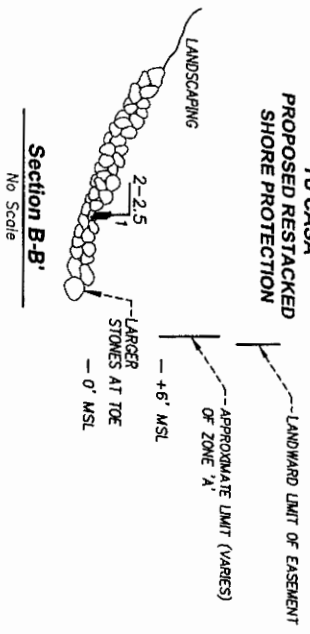
Please add the attached exhibit as Exhibit #7 to the staff report.



**TU CASA
EXISTING CONDITIONS
SHORE PROTECTION**



**TU CASA
PROPOSED RESTACKED
SHORE PROTECTION**



Section B-B'
No Scale

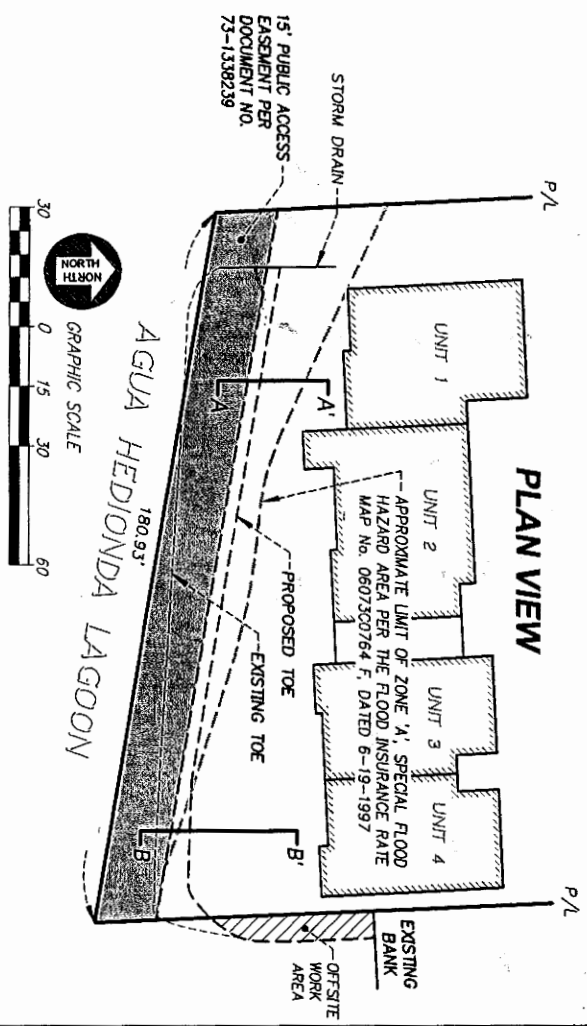


ACCESS ROUTES

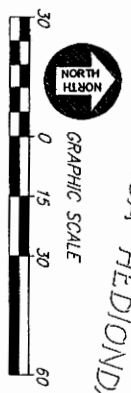
LIMITS OF ZONE 'A', SPECIAL FLOOD HAZARD AREA PER THE FLOOD INSURANCE RATE MAP NO. 0607300764 F. DATED 6-19-1997

AN EASEMENT TO THE STATE OF CALIFORNIA FOR THE PURPOSE OF PUBLIC ACCESS (INGRESS AND EGRESS)

ZONE 'Z', SPECIAL FLOOD HAZARD AREA PER THE FLOOD INSURANCE RATE MAP NO. 0607300764 F. DATED 6-19-1997



PLAN VIEW



DATE	1/10/07
BY	DAVE SCH
CHECKED	
SCALE	S2

TITLE: TU CASA H.O.A. REVETMENT MAINTENANCE

CLIENT: TU CASA H.O.A.
c/o Jim Stickland
2747 Marling Drive
Carlsbad, CA 92008

CGI
Geotechnical • Geologic • Coastal • Environmental

5741 Palmer Way, Carlsbad, CA 92010
760-438-3155

REGISTERED PROFESSIONAL ENGINEER
DAVE SCH
No. C 47857
Exp. 12/31/11
CIVIL ENGINEER
STATE OF CALIFORNIA

EXHIBIT NO. 7
APPLICATION NO. 6-10-016
Updated Site Plan

2

California Coastal Commission

CALIFORNIA COASTAL COMMISSION

SAN DIEGO AREA
 7575 METROPOLITAN DRIVE, SUITE 103
 SAN DIEGO, CA 92108-4421
 (619) 767-2370



W11a

Filed: April 16, 2011
 180th Day: October 13, 2011
 Extension Request: October 13, 2011
 Final Date for
 Commission Action: January 11, 2012
 Staff: Toni Ross-SD
 Staff Report: December 22, 2011
 Hearing Date: January 11, 2012

REGULAR CALENDAR
STAFF REPORT AND PRELIMINARY RECOMMENDATION

Application No.: 6-10-016

Applicant: Tu Casa HOA Agent: Merkel and Associates

Description: Repair and maintenance of an existing revetment to include returning dislodged rocks back on revetment, after-the-fact approval of a maximum of 10.4 cubic yards of rock placed without a permit and the addition of approximately 25 cubic yards of new rock.

Site: 4747 Marina Drive, Agua Hedionda, Carlsbad, San Diego County. APN No. 207-15-85

Substantive File Documents: Certified Agua Hedionda Land Use Plan, Mitigated Negative Declaration prepared by the City of Carlsbad dated October 2, 2009, Recorded public access Easement Document No. 73-133839; Geosoils wave runup analyses dated February 24, 2010 and May 25, 2010. Revetment Maintenance Plans submitted by Geosoils dated January 10, 2007, including revisions received up to November 14, 2011, letter from Merkel and Associates dated December 14, 2011.

STAFF NOTES:

The proposed revetment maintenance proposal was scheduled for the October, 2011 hearing. The applicant requested that the project be postponed to allow time for it to respond to the staff report. In response to some of the concerns raised in the staff report, the applicant has modified the project by designing the revetment further inland and removing all portions of the revetment located within the lateral public access easement. The following findings and resolutions are based on the project as most recently proposed and depicted in amended plans received by Commission Staff on November 14, 2011 and further discussed in a letter submitted by Merkel and Associates received on December 14, 2011.

Summary of Staff's Preliminary Recommendation:

Staff is recommending approval of the subject development with several special conditions. The primary concern associated with the proposal is that the revetment, as it exists today, is located partially on top of a lateral access easement and beach area below the mean high tide line and is therefore subject to the public trust. The proposal includes maintenance of an existing revetment that was constructed prior to enactment of the Coastal Act as well as previous augmentation to the revetment resulting in the addition of a maximum of 10.4 cubic yards of rock after-the-fact. As proposed, the revetment will be completely removed from the public access easement; however, some component of the revetment will remain on public trust lands. However, in this case, the proposed work is considered necessary maintenance and repair with only minimal augmentation, and as such, no new or expanded impacts to public access will occur as a result of the proposed repairs. Additional potential concerns include impacts to water quality, eelgrass habitat located within the general project site, introduction of invasive species *caulerpa taxifolia* associated with any grading efforts, and future encroachment of the revetment within the public access easement. As such, thirteen special conditions have been recommended and are discussed separately and in greater detail in the finding for approval below.

Standard of Review: Chapter 3 policies of the Coastal Act.

I. PRELIMINARY STAFF RECOMMENDATION:

The staff recommends the Commission adopt the following resolution:

MOTION: *I move that the Commission approve Coastal Development Permit No. 6-10-016 pursuant to the staff recommendation.*

STAFF RECOMMENDATION OF APPROVAL:

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

RESOLUTION TO APPROVE THE PERMIT:

The Commission hereby approves a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit complies with the California Environmental Quality Act because either 1)

feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. Standard Conditions.

See attached page.

III. Special Conditions.

The permit is subject to the following conditions:

1. Disposal of Export Material/Construction Debris. **PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall identify the location for the disposal of export material and construction debris. 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 before disposal takes place.

2. Long-Term Monitoring Program. **PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit for review and written approval of the Executive Director, a long-term monitoring plan for the existing shoreline protection. The purpose of the plan is to monitor and identify damage or changes to the revetment such that repair and maintenance is completed in a timely manner to avoid further encroachment of the revetment on the beach. The monitoring plan shall incorporate, but not be limited to the following:

- a. An evaluation of the current condition and performance of the revetment, addressing any migration or movement of rock which may have occurred on the site and any significant weathering or damage to the revetment that may adversely impact its future performance.
- b. Measurements taken from the benchmarks established in the survey as required in Special Condition No. 5 of CDP #6-10-016 to determine settling or seaward movement of the revetment. Changes in the beach profile fronting the site shall be noted and the potential impact of these changes on the effectiveness of the revetment evaluated.
- c. Recommendations on any necessary maintenance needs, changes or modifications to the revetment to assure its continued function and to assure no encroachment beyond the permitted toe.
- d. An agreement that the permittee shall apply for a coastal development permit within 90 days of submission of the report for any necessary maintenance, repair, changes or modifications to the project recommended by the report that require a

coastal development permit and implement the repairs, changes, etc. approved in any such permit.

The above-cited monitoring information shall be summarized in a report prepared by a licensed engineer familiar with shoreline processes and submitted to the Executive Director for review and written approval. The report shall be submitted to the Executive Director and the City of Carlsbad Engineering Department yearly after each winter storm season but prior to the 1st of May, starting with May 1, 2012 for the first 5 years after completion of construction. After the completion of five (5) annual reports monitoring will be lessened to once every five (5) years, beginning May 1, 2017. Monitoring once every five (5) years shall continue throughout the life of the revetment or until the revetment is removed or replaced under a separate coastal development permit.

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

3. Future Maintenance. The applicant shall maintain the existing revetment in its approved state. Any change in the design of the revetment or future additions/reinforcement of the revetment beyond exempt maintenance as defined in Section 13252 of Title 14 of the California Code of Regulations to restore the structure to its original condition will require a coastal development permit. **However, in all cases, if after inspection, it is apparent that repair and maintenance is necessary, the applicant shall contact the Executive Director to determine whether a coastal development permit or an amendment to this permit is legally required, and, if required, shall subsequently apply for a coastal development permit or permit amendment for the required maintenance.**

4. No Future Seaward Extension of Shoreline Protective Devices. By acceptance of this Permit, the applicant agrees, on behalf of itself and all successors and assigns, that no future repair or maintenance, enhancement, reinforcement, or any other activity affecting the existing shoreline protective device, shall be undertaken if such activity extends the footprint seaward of the existing device. By acceptance of this Permit, the applicant waives, on behalf of itself and all successors and assigns, any rights to such activity that may exist under Public Resources Code Section 30235.

5. As Built Plans. Within 60 days of completion of the project, the applicant shall submit as-built plans for the approved revetment and associated structures and submit certification by a registered civil engineer, acceptable to the Executive Director, verifying the revetment and associated structures have been constructed in conformance with the approved plans for the project (drafted by Geosoils, Inc., dated January 10, 2007, including all revisions dated to November 14, 2011). The plans shall identify permanent benchmarks from fixed reference point(s) from which the elevation and seaward limit of

the revetment can be referenced for measurements in the future. The plan shall also indicate the size, number, individual and total weight of any/all imported rock.

6. Project Modifications. Only that work specifically described in this permit is authorized. Any additional work requires separate authorization from the Commission or Executive Director, if appropriate. **If, during construction, site conditions warrant changes to the project, the San Diego District office of the Coastal Commission shall be contacted immediately and before any changes are made to the project in the field.** No changes to the project shall occur without an amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

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

8. Deed Restriction/CC&R's Modification. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant homeowners' association (HOA) shall do one of the following:

a. Submit to the Executive Director for review and approval documentation demonstrating that the applicant has executed and recorded a deed restriction in a manner that will cause said deed restriction to appear on the title to the individual condominium units, and otherwise in a form and content acceptable to the Executive Director: (1) indicating that, pursuant to this permit, the California Coastal Commission has authorized development on the subject property, subject to terms and conditions that restrict the use and enjoyment of that property; and (2) imposing the Special Conditions of this permit, as they apply to the HOA, as covenants, conditions and restrictions on the use and enjoyment of the individual condominium units. The deed restriction shall include a legal description of the entire parcel or parcels against which it is recorded. The deed restriction shall also indicate that, in the event of an extinguishment or termination of the deed restriction for any reason, the terms and conditions of this permit shall continue to restrict the use and enjoyment of the subject property so long as either this permit or the development it authorizes, or any part, modification, or amendment thereof, remains in existence on or with respect to the subject property, or;

b. Modify the condominium association's Declaration of Restrictions or CC&Rs, as applicable, in a form and content acceptable to the Executive Director, to reflect the obligations imposed on the homeowners' association by the special conditions of CDP #6-10-16. This addition to the CC&Rs shall not be removed or changed without a Coastal Commission-approved amendment to this coastal development permit.

9. Invasive Species. **PRIOR TO THE COMMENCEMENT OF CONSTRUCTION**, the applicant shall provide evidence that the proposed revetment work can occur without the risk of spreading the invasive green alga *Caulerpa taxifolia* as follows.

- a. Not earlier than 90 days nor later than 30 days prior to commencement or re-commencement of any construction activities authorized under this coastal development permit, the applicant shall undertake a survey of the project area (includes and any other areas where the bottom could be disturbed by project activities) and a buffer area at least 10 meters beyond the project area to determine the presence of the invasive alga *Caulerpa taxifolia*. The survey shall include a visual examination of the substrate.
- b. The survey protocol shall be prepared in consultation with the Regional Water Quality Control Board, the California Department of Fish and Game, and the National Marine Fisheries Service.
- c. Within five (5) business days of completion of the survey, the applicant shall submit the survey:
 1. For the review and written approval of the Executive Director; and
 2. To the Surveillance Subcommittee of the Southern California Caulerpa Action Team (SCCAT). The SCCAT Surveillance Subcommittee may be contacted through William Paznokas, California Department of Fish & Game (DFG) (858-467-4218) or Robert Hoffman, National Marine Fisheries Service (NMFS) (562-980-4043).
 3. If *Caulerpa* is found, then the NMFS and DFG contacts shall be notified within 24 hours of the discovery.
- d. If *Caulerpa* is found, the applicant shall, prior to the commencement of any construction activities, provide evidence to the Executive Director for review and written approval either that the *Caulerpa* discovered within the project and/or buffer area has been eradicated or that the project has been revised to avoid any contact with *Caulerpa*. No changes to the project shall occur without a Coastal Commission approved amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

10. Eelgrass Mitigation and Monitoring. **PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit, for review and written approval of the Executive Director, an eelgrass mitigation and monitoring plan that includes at a minimum the following:

- a. Performance of a pre-construction eelgrass survey of the project area by a qualified biologist immediately prior to the proposed revetment work in order to establish the location of all eelgrass habitat.
- b. Marking the location of all eelgrass habitat found in the pre-construction survey in order that the contractor can avoid impacting these areas during the proposed revetment work.
- c. Performance of a post-construction eelgrass survey of the project area by qualified personnel no more than 30 days after the completion of the work to determine if any eelgrass habitat was impacted by construction activities.
- d. Performance of mitigation if it is determined by the post-construction eelgrass survey that there has been a loss of eelgrass habitat. This mitigation must be performed in accordance with and subject to the requirements of the Southern California Eelgrass Mitigation Policy (1:1.2 ratio). The applicant shall consult with the Executive Director prior to construction to determine if an additional coastal development permit or amendment is required for any necessary mitigation.

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

11. Other Permits. **PRIOR TO COMMENCEMENT OF CONSTRUCTION**, the applicants shall provide to the Executive Director copies of all other required local, state or federal discretionary permits for the development authorized by CDP #6-10-16. The applicants shall inform the Executive Director of any changes to the project required by other local, state or federal agencies. Such changes shall not be incorporated into the project until the applicants obtain a Commission amendment to this permit, unless the Executive Director determines that no amendment is legally required.

12. Condition Compliance. Within 90 days of Commission action on this coastal development permit application, or within such additional time as the Executive Director may grant for good cause, the applicant shall satisfy all requirements specified in the conditions hereto that the applicant is required to satisfy prior to issuance of this permit. Failure to comply with this requirement may result in the institution of enforcement action under the provisions of Chapter 9 of the Coastal Act.

13. Final Plans. **PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicants shall submit to the Executive Director for review and written approval, final construction plans for the permitted development. Said plans shall be in substantial conformance with the plans submitted by Geosoils, Inc., dated January 10, 2007 including all revisions received by Commission staff through November 14, 2011.

The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without an amendment to the coastal development permit unless the Executive Director determines that no amendment is legally necessary.

IV. Findings and Declarations.

The Commission finds and declares as follows:

1. Detailed Project Description\Site History.

The project involves maintenance work to repair an existing rock revetment that is on the beach fronting an existing 30-unit condominium complex on the north shore of Agua Hedionda Lagoon, just east of Bristol Cove in the City of Carlsbad. The revetment was originally constructed prior to enactment of the Coastal Act. The work will include the removal of rock that has migrated vertically down the shore slope into Agua Hedionda Lagoon and replace the rock on a steepened shore face. Some of the rock will be reused, while some of the material will be upsized to larger revetment stone to prevent further vertical movement of rock. The work would also include the importation and placement of approximately 25 cubic yards of quarried armor stone. As originally proposed, a portion of the rock revetment would remain within an existing lateral public easement. In response to a staff report prepared for the Commission's October, 2011 hearing detailing concerns with the encroachment of the revetment into the access easement, the applicant revised the project on November 14, 2011. As revised, the project incorporates a number of larger "toe stones" to the revetment. With the incorporation of these large tow stones, the applicant's engineer has been able to remove all revetment rock from the access easement by constructing the revetment at a steeper slope, supported by the larger stones. In addition, as modified, the revetment is located three feet inland of the access easement to allow for some standard settling of the revetment rock without encroaching into the access easement. The importation of additional rock is still a component of the revised project, and remains proposed as approximately 25 cubic yards.

The proposal also includes an after-the-fact request for approval of previous augmentation to the existing revetment without benefit of a coastal development permit. Sometime during the years of 1998-1999, a maximum of 10.4 cubic yards of rock was added to the existing revetment. Commission staff and the applicant believe that the rock was added when neighbors undertook a revetment repair project approved by the Coastal Commission for a revetment immediately adjacent to the subject site and within Bristol

Cove (ref. CDP No. 6-98-051). However, neither the applicant nor the Commission has been able to find any permit records for the portion of rock added to the subject revetment. While the additional rock is generally discernable by being slightly greater in size than the existing stones, the exact amount added during that time is uncertain. The applicant's agent has submitted as estimate of between 2.8-10.4 cubic yards of additional rock. As such, the project includes after-the-fact review of a maximum of 10.4 cubic yards of unpermitted revetment stone.

The area of work totals approximately 0.12 acres. The revetment is on the southerly side of the Tu Casa Condominium development that faces onto Agua Hedionda Lagoon and on a roughly three foot scarp of the adjacent property to the east to prevent further erosion. The project site is surrounded by residential multifamily units to the north, Agua Hedionda lagoon to the south, open space in the form of a sandy beach at low tide as part of a developed multifamily project to the east, and a waterway of the entrance to Bristol Cove to the west. While the project is located in the inner basin of Agua Hedionda Lagoon, the revetment is necessary to protect the existing structure from waves, mostly formed through the wakes created by recreational boating and wind.

Construction equipment would gain access from an existing disturbed beach access at the foot of Bayshore Drive located approximately 600 feet east of the project site. Access would be taken by vehicles at low tide, driving along the hard sand beach to the rubble beach at the project site. Construction work would occur during low tides and equipment would be removed from the intertidal zone during high tide periods.

The subject site is located on the inner basin of Agua Hedionda Lagoon. The Agua Hedionda Lagoon is a lagoon in the City of Carlsbad that is fed by the Agua Hedionda Creek. Stewardship of much of the lagoon is held by the Encina Power Station and its owner NRG Energy. In November 2000, Agua Hedionda Lagoon was designated as a critical habitat for the tidewater goby. The subject site is also located at the mouth of Bristol Cove, a man-made cove constructed prior to enactment of the Coastal Act on the northeast side of Aqua Hedionda Lagoon. Bristol Cove is developed with several condominium complexes lining Cove Drive, Park Drive, and Marina Drive. Many of the complexes on the cove side of the street have private docks (ref. Exhibits #1, 3).

Agua Hedionda is one of six segments of the City of Carlsbad's LCP. While most of the City's coastal zone has a fully certified LCP, with the City issuing coastal development permits, an implementation program for the Agua Hedionda segment has not been certified as yet. Thus, permit responsibility remains with the Commission, and Chapter 3 of the Coastal Act is the standard of review.

The existing condominium development was approved for development by the Coastal Commission in June 29, 1973 (ref. CDP No. F0201). A lateral public access easement was required by the City and then by the Commission associated with the condominium development. The easement area was 15 feet wide, to be located on the southwesterly portion of the lot, and adjacent to the lagoon waters. The easement was recorded in 1973 and is currently held by the City of Carlsbad (ref. Exhibit #4). However, the original

revetment itself was constructed during the construction of Bristol Cove, and therefore, was installed prior to enactment of the Coastal Act and thus, prior to development of the condominium development.

2. Shoreline Protective Devices. The proposed project includes augmentation of an existing rock revetment that was constructed prior to enactment of the Coastal Act. The Coastal Act has two applicable policies addressing this issue which state, in part:

Section 30235

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 of erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply.

Section 30253

New development shall do all of the following:

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

[. . .]

In reviewing requests for shoreline protection, the Commission must assess both the need to protect private residential development and the potential adverse impacts to public resources associated with construction of such protection. A number of adverse impacts to public resources are associated with the construction of shoreline structures. These include loss to the public of the sandy beach area that is 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, 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 a shoreline protective device on the contrasting natural shoreline. However, in this case the subject site is located on the inner basin of Agua Hedionda Lagoon, and therefore is not considered an area of beach quality sand. Additionally, because of its location on the inner basin, reflection and scour impacts are minimal as the area is not subject to the wave velocities associated with standard or storm ocean waves.

The existing revetment was originally constructed prior to the enactment of the Coastal Act. While the project is located in the inner basin of Agua Hedionda Lagoon, the revetment is necessary to protect the existing structure from waves, mostly formed through the wakes created by recreational boating and wind. The current revetment includes rocks that have become dislodged and are now located on the remaining lagoon front and are thus encroaching upon the beach and affecting the public's access along the lagoon at this location. As such, the purpose of the proposed maintenance is to ensure that the existing revetment continues to protect the existing residential condominium structures. To accomplish this, the applicant is proposing to remove the rocks that have fallen and are taking up useable lagoon-fronting beach area. Some of the rock will be reused, while some of the material will be upsized to larger revetment stone to prevent further vertical movement of rock. The work would also include the importation and placement of 25 cubic yards of quarried armor stone. This new larger-sized quarried armor stone will be used as keystones at the base to facilitate a revetment at a steeper slope, thereby eliminating the footprint of the structure from being located in the public access easement.

A wave runup report has been submitted by the applicant's soils engineer (GeoSoils Inc.) and was received on February 24, 2010. The GeoSoils report states:

The site is subject to small wind waves and boat wakes. Unlike the open ocean these conditions are very constant and the actual wave runup can be determined by observation...The maximum wave runup during maximum high tide is to about elevation +6.5 MSL, which is just at the top of the revetment.

An additional wave runup report was also submitted by Geosoils, received May 25, 2010, and goes on to state:

The revetment has move (sic) lagoon-ward overtime and is outside the reasonable footprint. In addition there has been some minor undermining of the concrete foundation form (sic) wave and wake overtopping of the revetment.

The Commission's Staff Engineer has reviewed the proposed project and technical reports and concurs that the existing upland residential structure is subject to threat and that the proposed revetment repairs are necessary to protect the existing condominium structure, are the minimum required, and have been designed appropriately to address both scour depth and sea level rise and thus, as proposed, will adequately protect the existing structure.

To assure the proposed shore protection has been constructed properly, Special Condition No. 5 has been proposed. This condition requires that, within 60 days of completion of the project, as built-plans and certification by a registered civil engineer be submitted that verify the proposed revetment repairs have been completed in accordance with the approved plans and that benchmarks be identified from fixed reference point(s) from which the elevation and seaward limit of the revetment can be measured in the future. As previously stated, while the proposal includes the addition of 25 cubic yards of new rock,

the applicant has recently modified the revetment design, and therefore, it is unclear the exact number, size, and weight of the imported rock. As such, Special Condition No. 5 further requires the applicant to detail the specific number, size and weight of any and all of the imported rock. Special Condition No. 2 requires the applicant to submit annual monitoring reports to the Commission to determine settling or seaward movement of the revetment to ensure the revetment continues to be configured to minimize impacts to public access. Typically, the Commission requires rock revetments along the ocean to be monitored annually as they are subject to storm waves annually and can be damaged. However, in this case, the Commission is only requiring annual reporting for the first five years, and every fifth year beyond that. The subject revetment is located on the inner basin of Agua Hedionda Lagoon. As such, the revetment is not subject to the same scour of tidal and storm waves as those along the oceanfront, and instead is only subject to less powerful scour associated with wind and boat-wake formed waves. It is only because the revetment isn't subject to typical ocean scour that the modification to Special Condition No. 2 can still be found consistent with the applicable policies of the Coastal Act. The Commission's Staff Engineer, Lesley Ewing, has reviewed and supports the monitoring condition.

In order to protect future impacts to public access Special Condition Nos. 3 and 4 have also been included. Special Condition No. 3 notifies the applicant that it is responsible for continued maintenance of the existing revetment. The condition also indicates that, should it be determined that additional maintenance of the proposed structures is required in the future, the applicant shall contact the Commission to determine if permits for such maintenance are required. Special Condition No. 4 requires the applicant to waive any rights that might exist for future seaward extension of the revetment. Special Condition No. 11 requires the applicant to submit a copy of any required permits from other local, state or federal agencies to ensure that no additional requirements are placed on the applicants that could require an amendment to this permit.

Although the Commission finds that the proposed repair work has been designed to minimize the risks associated with its implementation, the Commission also recognizes the inherent risk of shoreline development. The revetment will be subject to wave action. Thus, there is a risk of damage to the revetment or damage to property as a result of wave action. Given that the applicant has chosen to perform these repairs despite these risks, the applicant must assume the risks. Accordingly, Special Condition No. 7 requires that the applicant acknowledge the risks and indemnify 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. Special Condition No. 8 requires the applicant to record a deed restriction imposing the conditions of this permit as covenants, conditions and restrictions on the use and enjoyment of the property. Because the subject property includes multiple owners comprising a Home Owners Association (HOA) the standard language for the deed restriction would require each individual property owner to record its own deed restriction which could be an arduous and expensive responsibility; as such, Special Condition No. 8 provides a second option to include the findings and conditions of the subject permit into the HOA's Covenants, Conditions, and Restrictions (CC&R's) thereby memorializing the findings and requirements of this permit. All of these special

conditions will ensure that the revetment remains in a configuration that can be considered to minimize impacts to coastal resources, consistent with the above cited Chapter 3 policies of the Coastal Act.

In summary, the Commission finds that the applicant has demonstrated that the existing primary structures continue to be subject to threat from wave action and erosion and that repairs/maintenance of the existing revetment is necessary and the minimum necessary to assure continued protection. Therefore, the Commission finds that the proposed repair project, as conditioned, is consistent with Sections 30235 and 30253 of the Coastal Act.

3. Public Access. As stated above, the proposed project may result in impacts to public access. As such, the following Coastal Act policies are applicable and state, in part:

Section 30210

In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

Section 30211

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

Section 30212.5

Wherever appropriate and feasible, public facilities, including parking areas or facilities, shall be distributed throughout an area so as to mitigate against the impacts, social and otherwise, of overcrowding or overuse by the public of any single area.

Section 30214

(a) The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:

- (1) Topographic and geologic site characteristics.
- (2) The capacity of the site to sustain use and at what level of intensity.

(3) The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to adjacent residential uses.

(4) The need to provide for the management of access areas so as to protect the privacy of adjacent property owners and to protect the aesthetic values of the area by providing for the collection of litter.

Pursuant to these sections of the Act, the certified Agua Hedionda Land Use Plan (which the Commission uses for guidance) contains a detailed set of public access policies that state, in part:

Policy 7.3

All pedestrian trails shall be constructed to a minimum width of 5 feet. Combination bicycle/pedestrian easements and lateral easements shall be a minimum of 25 feet in width.

Policy 7.6

Access to and along the north shore of the lagoon shall be made continuous, to the maximum extent feasible, and shall be provided as a condition of development for all shorefront properties. All accessways shall be designed in such a manner as to allow for reasonable use by any member of the general public, and shall be designed to accommodate bicycle as well as pedestrian use....

Policy 7.8 - Design of Access Easements, Buffer Areas, and Adjacent Development

All accessways should be designed to enhance recreational use, and should include adequate open spaces for light and air, adequate signing, inviting design, and provision of adequate buffer areas and buffer landscaping to minimize conflicts with adjacent private property.

Policy 7.9 - Access Signing

All public use areas shall be clearly identified through a uniform signing program, to be carried out by the City of Carlsbad or as a condition of individual private developments. Signs or other devices on public or private property, which might deter use of public access areas, shall be prohibited within the Agua Hedionda Plan area.

The proposed project includes maintenance work, including the importation of additional rock to an existing rock revetment, which, in its current configuration is within public beach area and partially on top of an existing lateral access easement. As previously discussed, there are a number of adverse impacts to public resources associated with the construction of shoreline protective structures including loss to the public of the sandy

beach area that is displaced by the structure, “permanently” fixing the location of the back of the beach, and narrowing and eventual disappearance of the beach in front of the structure. The proposed project includes maintenance to an existing revetment and will extend the life of the revetment, and therefore, also extend any associated impacts to public access. That being said, by the nature of riprap revetments on the beach, it is recognized that periodic maintenance will be necessary. In the case of the proposed maintenance project, some of the stones from the existing revetment have rolled off the revetment and others have been moved around and repositioned by waves, such that the revetment is no longer providing adequate protection for the upland residential structures. The proposed project would pull back the rock that has migrated beyond the original revetment footprint. Replacing the migrated riprap will remove some of the existing access obstruction on the beach. The project also includes the reconfiguration of the revetment by adding some new larger rocks at the toe of the revetment. As originally proposed, a portion of the revetment would remain within an existing access easement (required by the City and the Coastal Commission associated with the construction of the condominiums) after the maintenance activities were complete. However, after Commission staff indicated that maintaining rock within an access easement would not be consistent with the Coastal Act, the applicant has redesigned the revetment plans to remove all rock from the easement area. The amended revetment proposal includes the importation of larger revetment stones, to be placed at the front, and at the toe, of the revetment. It is through the placement of these large toe stones, resulting in a steeper revetment, that the revetment can be moved out of the easement and still adequately protect the existing structure. The Commission’s Staff Engineer has reviewed the amended plans and supports the amended revetment design. As such, the project will improve the public access opportunities from existing conditions.

However, there are a number of remaining concerns regarding impacts to public access. These concerns include that the revetment, both pre- and post-construction, is located on a public beach that may otherwise be utilized by beach goers for access or recreational activities. Additionally, sometime in the late 1990’s a maximum of 10.4 cubic yards of additional rock was added to the revetment, without benefit of a coastal development permit, further exacerbating these impacts. Lastly, the revetment has fixed the back of the beach at this location and prevented natural beach processes. In this case, the rock revetment not only takes up beach area that could otherwise be used for public access and recreational opportunities, it also effectively eliminates the beach area in front of the revetment. Currently, the revetment is approximately 182 feet long and 30 feet wide. As such, the revetment is taking up a significant area, some of which is public beach. It is important to again note here that sandy beach at this location is limited, and the lagoon waters often come up beyond the toe of the revetment. Thus, the revetment is taking up a portion of beach area in an area where beach area is very limited. Furthermore, in looking at aerial photographs it is clear that the revetment is impeding the natural shoreline processes by fixing the location of the beach, and preventing the natural migration of the beach inland (ref. Exhibit #3). The property directly to the east is not protected by any type of shoreline protective device, and both the tidal influence and beach area are located further inland (ref Exhibit #3). Because the beach hasn’t been able to migrate naturally, currently the subject revetment has served to limit the sandy beach

available to the public in front of the revetment to times of lower tides. It can be anticipated that some time in the future the sandy beach area in front of the revetment will be eliminated completely. Therefore, the subject revetment has prevented this natural migration the beach area and by doing so is effectively eliminating the sandy beach from in front of the revetment.

That being said, the Commission has reviewed the scale of the proposed work in detail and concluded that the proposed project is truly repair and maintenance typically associated with rock revetments and is not rebuilding or substantially altering the revetment. Based on the plans and calculations by the applicant's engineer, the previously unpermitted and newly added rock comprises less than an 18% addition to the revetment. Additionally, as redesigned by the applicant, the footprint of the revetment will be substantially reduced and completely removed from the existing lateral public access easement and will therefore improve public access over what currently exists. Therefore, while some impacts to public access remain, as the revetment will still be on the beach, the impacts are no more than that of the original revetment that was constructed before enactment of the Coastal Act. Therefore, the proposed revetment maintenance project can be found consistent with the applicable policies of the Coastal Act and shall be approved.

4. Water Quality/Sensitive Biological Resources. The following Chapter 3 policies of the Coastal Act apply to the subject proposal and state, in part:

Section 30230

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

Section 30231

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

Section 30232

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

The work to the revetment could result in impacts to both water quality and biological resources. The revetment is located in a lagoon where the invasive *caulerpa taxifolia* has been previously found and is known to be vegetated with eel grass beds.. Eel grass beds have long been reported to provide crucial fish nursery ground and, as such, any impacts to eel grass beds would require specific mitigation, and the further introduction of *Caulerpa* must be prevented. Specifically, the proposed project will potentially result in impacts to water quality as a result of beach disturbance during the revetment maintenance activities. In general, it is anticipated that water quality impacts will be limited to disturbance of beach sediments and thus short-term elevation of turbidity levels as exposed fine sediments are released from the sands and gravels of the beach. There is also the potential for petroleum discharges to the lagoon associated with mechanized equipment. The project, as proposed, will be compliant with measures for control of urban runoff, sedimentation, and other pollutants in accordance with the City's standard urban storm water mitigation plans (SUSMP) and the City of Carlsbad's Master Drainage Plan. Specifically, the project includes 1) that all equipment be removed from the beach areas during any tidal condition that may inundate working areas; 2) staging areas will be located at the foot of Bayshore Drive and on improved surfaces; 3) Rock will only be brought in as needed and stockpiled as high on the shore as practicable; 4) No-fuel zones will be designated for all areas within 10 feet of drainages, sensitive habitat, lagoon waters, or adjacent wetlands; 5) the completion of a site specific water quality control plan, including turbidity, sediment, and hazardous material management practices, and 6) the prohibition of placement of erodible fill material into watercourses. Therefore, the project, as proposed, can be found consistent with the Coastal Act policies pertaining to the protection of water quality.

The proposed project may also result in impacts to biological resources including adjacent eel grass beds. A survey of eelgrass beds was conducted and concluded that there are eel grass beds located outside and immediately adjacent to the shoreline area on which the work is anticipated to occur. However, it is unlikely that the proposed project will impact the eel grass beds directly, as they are not located in any of the identified work areas. However, potential impacts can occur as a result of equipment maneuvering on the beach or excessive displacement of shoreline sands and sediments during construction activities. As proposed, the project includes staking a 10-foot buffer from existing eel grass beds, control of sediments, and designated staging areas. Additionally, monitoring of the eel grass beds will occur both during and post-construction. If the reports indicate impacts to eel grass, mitigation in the form of restoration at a 1.2:1 ratio of eel grass beds will be provided. Special Condition No. 10 reinforces and memorializes these survey and potential mitigation efforts, further protecting the existing eelgrass beds.

Therefore, as conditioned, the project can be found adequate to protect sensitive biological resources consistent with the applicant policies of the Coastal Act.

Lastly, the proposed project is located within an area known to be affected by the invasive species *Caulerpa taxifolia*. *Caulerpa* is a tropical green marine alga that is popular in the aquarium trade because of its attractive appearance and hardy nature. This seaweed spreads asexually from fragments and creates a dense monoculture displacing native plant and animal species.

Because of the grave risk to native habitats, in 1999 *Caulerpa* was designated a prohibited species in the United States under the Federal Noxious Weed Act. AB 1334, enacted in 2001 and codified at California Fish and Game Code Section 2300, forbids possession of *Caulerpa*. In June 2000, *Caulerpa* was discovered in Aqua Hedionda Lagoon, and in August of that year an infestation was discovered in Huntington Harbor in Orange County. Genetic studies show that this is the same clone as that released in the Mediterranean. Other infestations are likely. Although a tropical species, *Caulerpa* has been shown to tolerate water temperatures down to at least 50 degrees F. Although warmer southern California habitats are most vulnerable, until better information is available, it must be assumed that the whole California coast is at risk. All shallow marine habitats could be impacted.

In response to the threat that *Caulerpa* poses to California's marine environment, the Southern California *Caulerpa* Action Team, SCCAT, was established to respond quickly and effectively to the discovery of *Caulerpa* infestations in Southern California. The group consists of representatives from several state, federal, local and private entities. The goal of SCCAT is to completely eradicate all *Caulerpa* infestations.

In order to assure that the proposed project does not cause the dispersal of *Caulerpa*, and adverse impacts to the biological productivity of the Agua Hedionda Lagoon, Special Condition No 9 has been attached. Special Condition No. 9 requires the applicant, prior to commencement of development, to survey the project area and any other areas where the bottom could be disturbed by project activities, for the presence of *Caulerpa*. If *Caulerpa* is found to be present in the project area, then prior to commencement of any construction activities, the applicant must provide evidence that the *Caulerpa* within the project site has been eradicated (the applicant could seek an emergency permit from the Executive Director to authorize the eradication) or that the project has been revised to avoid any disturbance of *Caulerpa*. If revisions to the project are proposed to avoid contact with *Caulerpa*, then the applicant shall consult with the local Coastal Commission office to determine if an amendment to this permit is required.

In conclusion, the proposed development, as conditioned, is not expected to have adverse impacts on any sensitive habitat, and, will not result in erosion or adverse impacts to water quality, as adequate construction BMPs will be provided. These include establishing a site-specific water quality control plan, mitigation for any unforeseen impacts to existing eelgrass beds, and pre- and post-construction *caulerpa* surveys. To ensure that both biological resources and water quality will be protected should any

unforeseen occurrences arise during construction, Special Condition No. 6 requires the applicant to contact the San Diego District office of the Coastal Commission before any changes are made to the project in the field. Thus, the project, as conditioned, can be found consistent with the resource protection policies of Chapter 3 of the Coastal Act.

5. Unpermitted Development. Unpermitted development, in the form of riprap added to the revetment, has occurred on the subject site without the required coastal development permit. Although development has taken place prior to submission of this permit application, consideration of this application by the Commission has been based solely upon the Chapter 3 policies of the Coastal Act. Approval of this permit does not constitute a waiver of any legal action with regard to the alleged violation nor does it constitute an admission as to the legality of any development undertaken on the subject site without a coastal permit. In order to ensure that the unpermitted development component of this application is resolved in a timely manner, the Commission finds it necessary to require the applicant to fulfill all of the Special Conditions as a prerequisite to the issuance of this permit, as required by Special Condition No. 12, within 90 days of Commission action. Only as conditioned is the proposed development consistent with the Coastal Act.

6. Local Coastal Planning. Agua Hedionda is one of six segments of the City of Carlsbad's LCP. While most of the city's coastal zone has a fully certified LCP, with the city issuing coastal development permits, an implementation program for the Agua Hedionda segment has not been certified as yet. Thus, permit responsibility remains with the Commission, and Chapter 3 of the Coastal Act is the standard of review. As conditioned, the project is also consistent with the habitat preservation, scenic preservation and public access policies of the certified Agua Hedionda Land Use Plan and with the corresponding Chapter 3 policies of the Coastal Act. Therefore, approval of the development, as conditioned herein, should not prejudice the ability of the City of Carlsbad to prepare a fully certifiable Local Coastal Program for the Agua Hedionda Lagoon segment.

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

The proposed project has been conditioned in order to be found consistent with the Chapter 3 policies of the Coastal Act. Mitigation measures, including conditions addressing water quality, biological resources and future maintenance and/or reconfiguration of the revetment will minimize all adverse impacts. As conditioned, there are no feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impact which the activity may have on the

environment. Therefore, the Commission finds that the proposed project is the least environmentally-damaging feasible alternative and is consistent with the requirements of the Coastal Act to conform to CEQA.

STANDARD CONDITIONS:

1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. Expiration. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
3. Interpretation. Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.
4. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
5. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

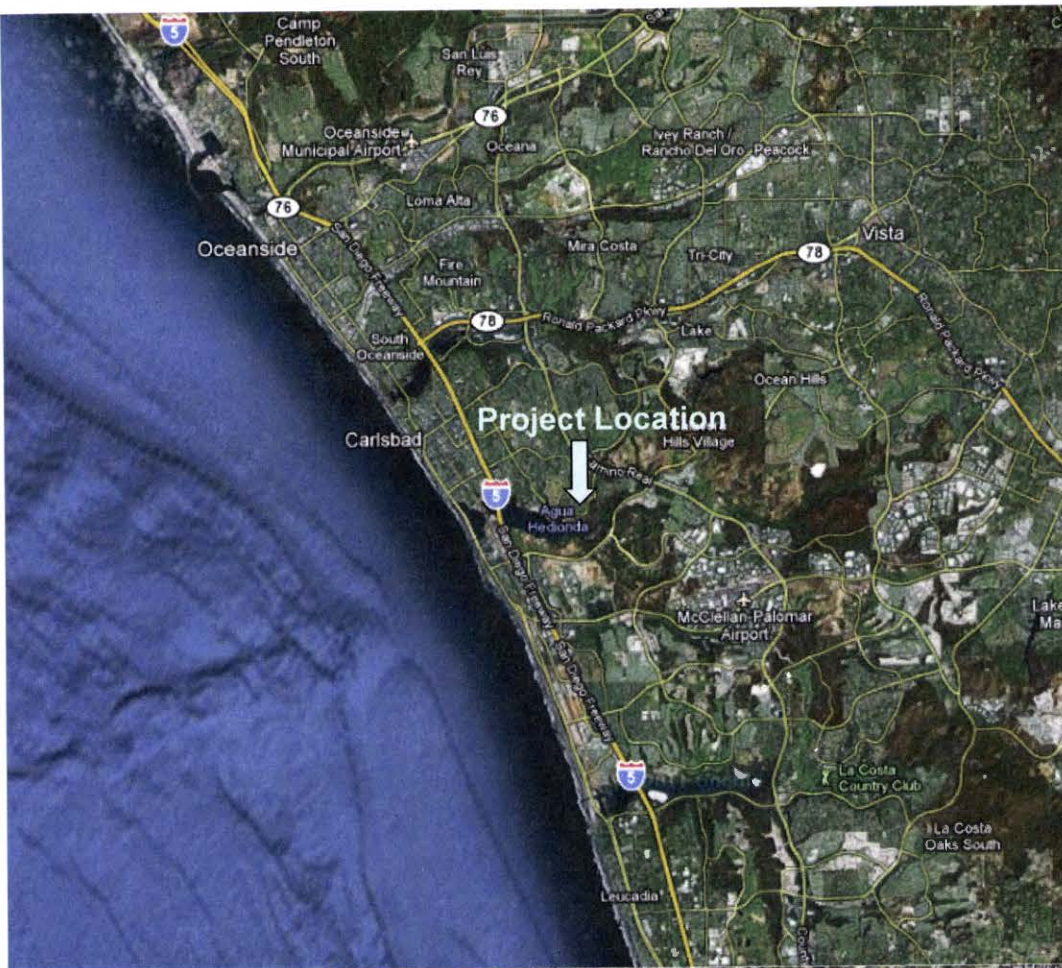



EXHIBIT NO.1
APPLICATION NO.
6-10-016
Location Map
 California Coastal Commission

DATE	7/22/09
DRAWN BY	DAVE SCHMAHL
CHECKED BY	DAVE SCHMAHL
DATE	9/15/09
DRAWN BY	DAVE SCHMAHL
CHECKED BY	DAVE SCHMAHL
DATE	11/23/09
DRAWN BY	DAVE SCHMAHL
CHECKED BY	DAVE SCHMAHL
DATE	1/6/10
DRAWN BY	DAVE SCHMAHL
CHECKED BY	DAVE SCHMAHL

PROFESSIONAL SEAL
 STATE OF CALIFORNIA
 CIVIL ENGINEER
 No. C 42957
 Exp. 12/31/17
 DRAFTING BY: SCHMAHL DRAFTING INC. (760) 414-3976

Geosols, Inc.
 Geotechnical • Geologic • Coastal • Environmental
 5741 Palmer Way, Carlsbad, CA 92010
 760-438-3155

TITLE: **REVENMENT MAINTENANCE**
 TU CASA H.O.A.
 CLIENT: TU CASA H.O.A.
 12/27 Jm Strickland
 2440 Wilshire Blvd
 Berkeley, CA 94708

DATE	1/10/07
SCALE	S2
NO.	4

ACCESS ROUTES

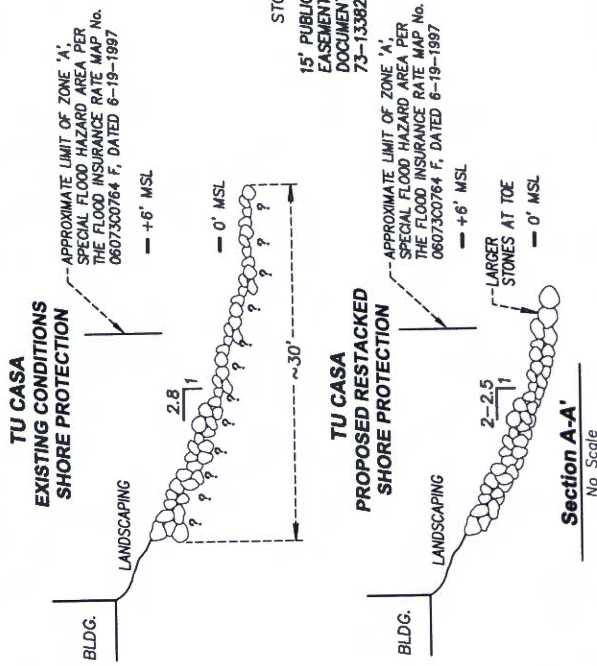
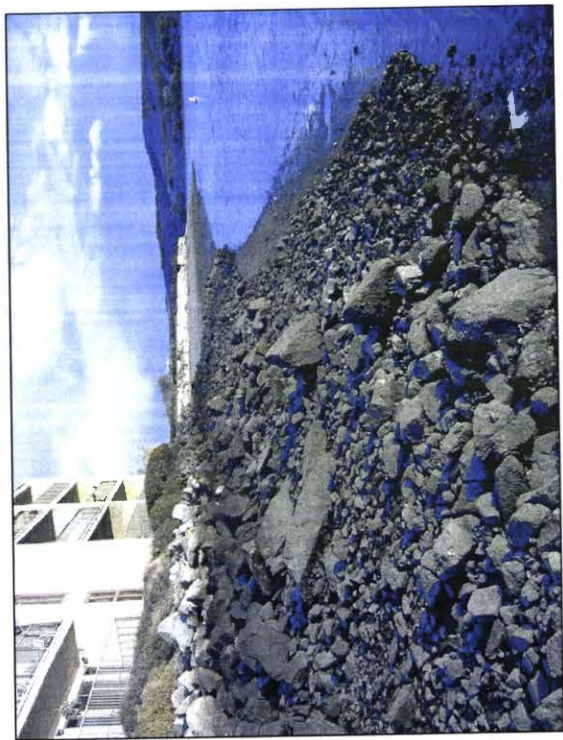


ZONE 'Z', SPECIAL FLOOD HAZARD AREA PER THE FLOOD INSURANCE RATE MAP No. 06073C0764 F, DATED 6-19-1997

LIMITS OF ZONE 'A', SPECIAL FLOOD HAZARD AREA PER THE FLOOD INSURANCE RATE MAP No. 06073C0764 F, DATED 6-19-1997

AN EASEMENT TO THE STATE OF CALIFORNIA FOR THE PURPOSE OF PUBLIC ACCESS (INGRESS AND EGRESS)

EXISTING CONDITION



PLAN VIEW

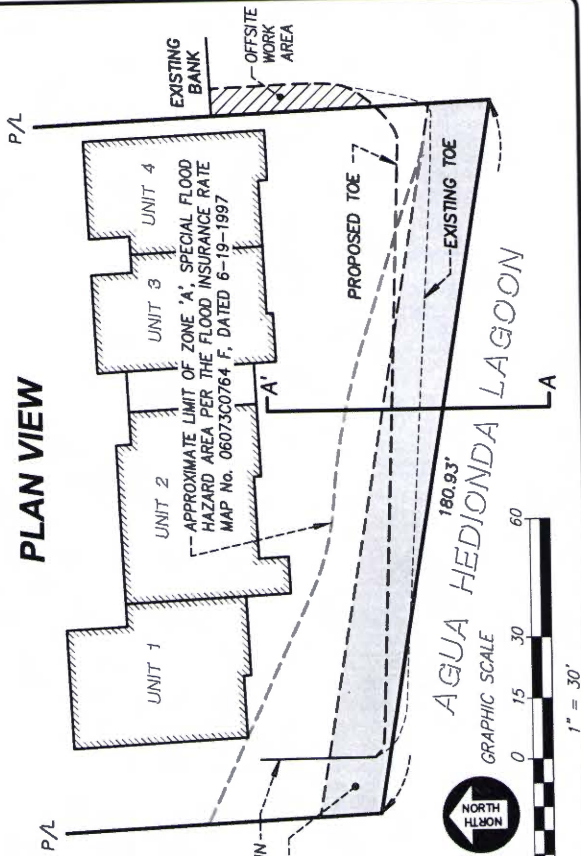


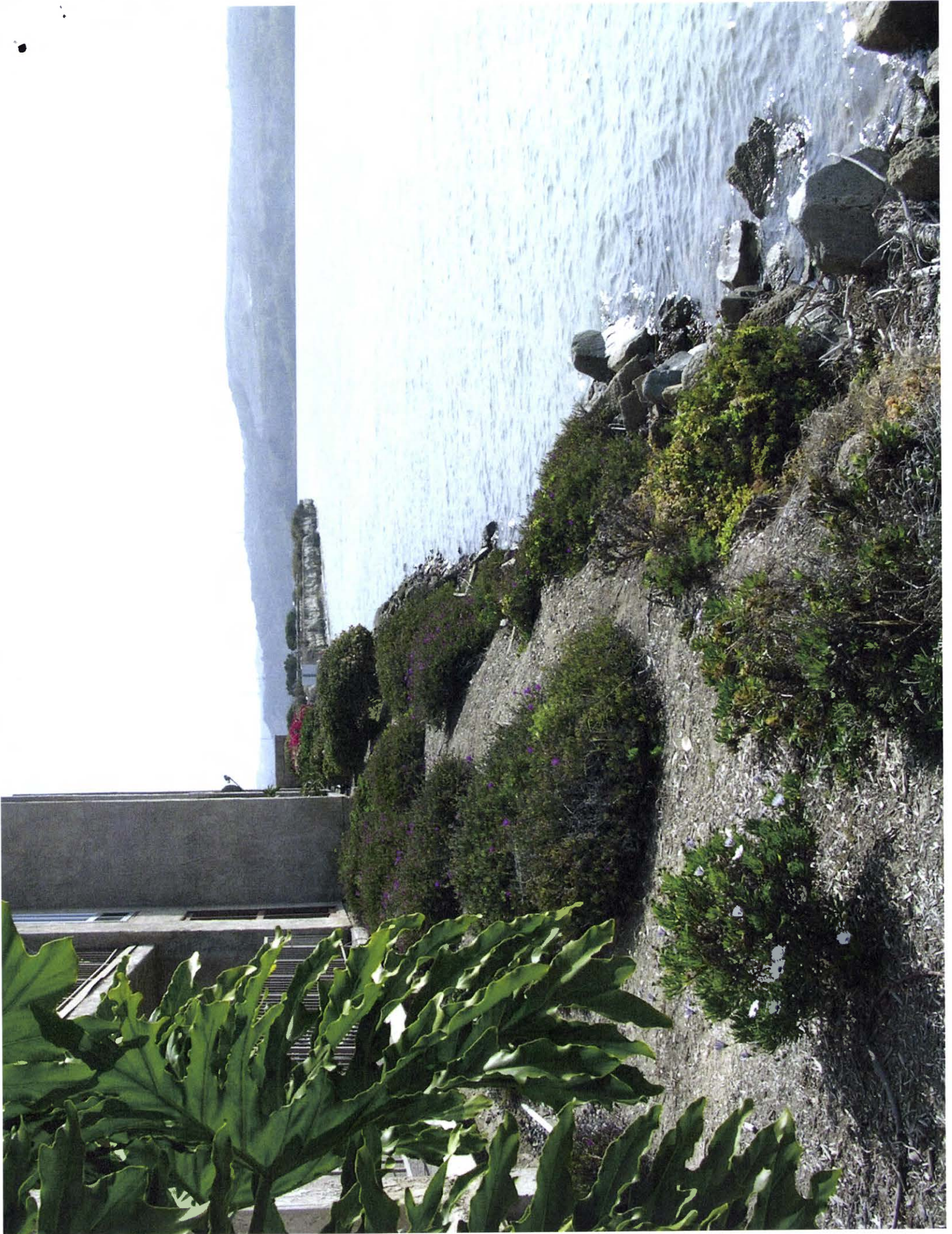
EXHIBIT NO. 2
 APPLICATION NO.
6-10-016
 Site Plan

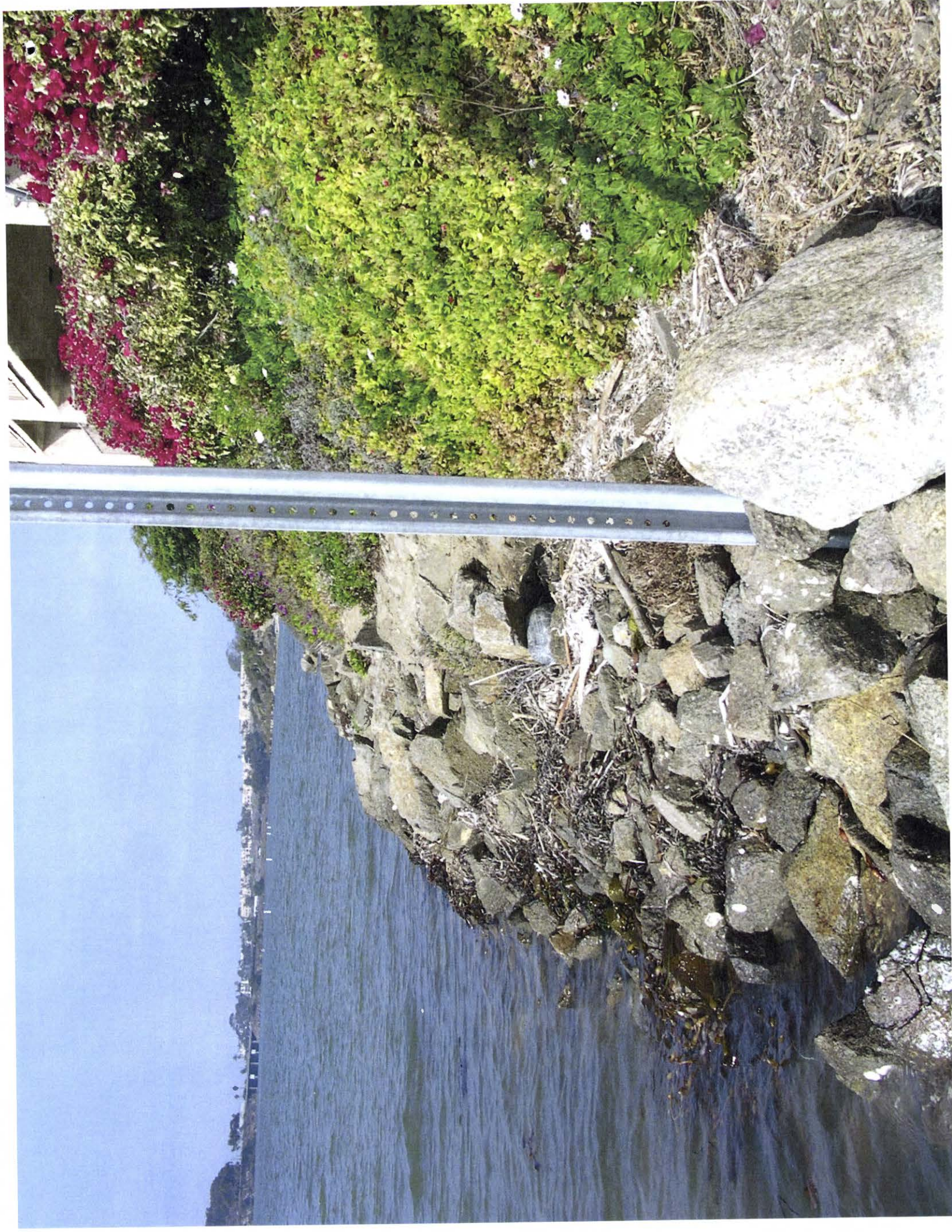


EXHIBIT NO. 3
APPLICATION NO.
6-10-016

Aerial Photographs









SAN DIEGO COAST REGIONAL COMMISSION

6154 MISSION GORGE ROAD, SUITE 220
SAN DIEGO, CALIFORNIA 92120-TEL.(714) 280-6992

RECEIVED JUN 29 1973

MALCOLM A. LOVE
Chairman

WILLIAM A. CRAVEN
Vice Chairman

JEFFERY D. FRAUTSCHY
Representative to the
California Coastal Zone
Conservation Commission

THOMAS A. CRANDALL
Executive Director

DEVELOPMENT PERMIT

Control No:

F 0201

KER

Date:

June 29, 1973

Applicant:

Richard A. Nowell
Marjory A. Nowell
8132 Dinsdale Ave.
Downey, CA 92040

R. L. Sievers & Sons Inc.
4237 $\frac{1}{2}$ Tweedy Blvd.
South Gate, CA 90280

Project Address :

In Bristol Cove Development on Agua Hedionda Lagoon, Carlsbad

You are hereby granted a development permit. This permit is issued after a hearing before the San Diego Coast Regional Commission (a copy of the Regional Commission's resolution of approval, vote, and other language, drawings and provisions is included herewith). This permit is limited to development described below and subject to the terms, conditions, and provisions, hereinafter stated:

A. DEVELOPMENT:

30 unit condominium

B. TERMS AND CONDITIONS:

1. That the applicant agrees to adhere strictly to the current plans for the project as submitted to the Commission.
2. That the applicant agrees to notify the Commission of any substantial changes in the project.
3. That the applicant will meet all the local code requirements and ordinances.
4. That the applicant agrees to conform to the permit rules and regulations of the California Coastal Zone Conservation Commission.
5. That the applicant agrees that the Commission staff may make site inspections of the project during construction and upon completion.
6. That the applicant provides to the City of Carlsbad the easement as described on File/Page No. 73-133839, Book 1973, recorded in the Office of the City Clerk of the City of Carlsbad.

Terms and conditions are to run with the land. These terms and conditions shall be perpetual and it is the intention of the parties to bind all future owners and possessors of the subject property except in the following particulars:

None

EXHIBIT NO. 4

APPLICATION NO.

6-10-016

Previous CDP with Recorded Easement



California Coastal Commission



SAN DIEGO COAST REGIONAL COMMISSION

6154 MISSION GORGE ROAD, SUITE 220
SAN DIEGO, CALIFORNIA 92120-TEL.(714) 280-6992

MALCOLM A. LOVE
Chairman

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Vice Chairman

JEFFERY D. FRAUTSCHY
Representative to the
California Coastal Zone
Conservation Commission

THOMAS A. CRANDALL
Executive Director

Control No. F 0201

Name of Applicant Richard Nowell -- R.L. Sievers & Sons Inc.

Address of development Bristol Cove Development on Agua Hedionda Lagoon
Carlsbad

RESOLUTION APPROVING DEVELOPMENT PERMIT BY SAN DIEGO COAST REGIONAL COMMISSION

Hearing dates of Commission:

6-15-73 Considering proposed development 6-15-73 Disapproving development permit
Commission vote: FOR 9 AGAINST: 0 ABSTAINING: _____

RESOLUTION

"WHEREAS the San Diego Coast Regional Commission at its duly noticed and held public hearing considered the Application for a development permit on the hereinafter described proposed development:

Applied for development description:

(Note: If different than "Proposed development to be approved")

Proposed development to be approved:

30 unit condominium

WHEREAS*

RESOLVED that the Regional Commission finds the proposed development will not have any substantial adverse environmental or ecological effect and is consistent with the findings and declarations set forth in Section 27001 and objections set forth in Public Resource Code Section 275 and is consistent with each provision and policy of the California Coastal Zone Conservation Act of 1972 and such findings are based on the following specific facts:

none

RESOLVED FURTHER that a Development Permit issue on the proposed development subject to the usual provisions, exceptions, and the following reasonable terms and conditions:

none

*Note: For special statutory provisions and policies relevant to the proposed development.

C. STANDARD PROVISIONS

- (1) STRICT COMPLIANCE: Permittee is under obligation to conform strictly to permit under penalties established by California Coastal Zone Conservation Act of 1972.
- (2) TIMELY DEVELOPMENT AND NOTICE OF COMPLETION: Permittee shall commence development in a timely manner and complete in a reasonable time. Upon completion of the development, Permittee shall promptly file with Commission a "Notice of Completion."
- (3) ASSIGNABILITY OF PERMIT: This permit is not assignable unless the Permittee's obligations under the permit are assumed by assignee in writing, and a copy of assumption agreement delivered to Regional Commission.
- (4) APPEAL: Unless appealed to the State Commission within ten (10) days following final action by the San Diego Coast Regional Commission, all terms and conditions shall be final.
- (5) DISCLAIMER: This permit is in no way intended to effect the rights and obligations heretofore existing under private agreements nor to effect the existing regulations of other public bodies.
- (6) PERMITTEE TO RETURN COPY: This permit shall not be valid unless within ten (10) days Permittee returns a signed copy acknowledging contents to San Diego Coast Regional Commission.

If you have any question on any of these matters, please contact the staff of the Regional Commission.

Very truly yours,

Thomas A. Crandall, Executive Director
San Diego Coast Regional Commission

By _____ Signature on file Signature on file

Directions to Permittee: Permittee is to execute below and return one copy of this permit to the San Diego Coast Regional Commission.

I have read and understand the terms, conditions, limitations, and provisions of this permit and agree to abide by them.

Control No. F0201

6-27-73
Date

[Signature]
Signed by Permittee

Signature on file

RECORDING REQUESTED BY

City of Carlsbad
1200 Elm Avenue
Carlsbad, Ca. 92008

AND WHEN RECORDED MAIL TO

Name
Street
Address
City &
State

City of Carlsbad
1200 Elm Street
Carlsbad, Calif. 92008

FO 201

73-133839

FILE/PAGE NO.
BOOK 1973
RECORDED REQUEST OF
Carlsbad CITY CLERK
MAY 17 11 41 AM '73

OFFICIAL RECORDS
SAN DIEGO COUNTY, CALIF.
HARLEY F. BLOOM
RECORDER

RECEIVED MAY 17 1973

NO FEE

SPACE ABOVE THIS LINE FOR RECORDER'S USE
Consideration is less than \$100.00

MAIL TAX STATEMENTS TO

Name
Street
Address
City &
State

Not Applicable

DOCUMENTARY TRANSFER TAX \$ None
--- COMPUTED ON FULL VALUE OF PROPERTY CONVEYED,
--- OR COMPUTED ON FULL VALUE LESS LIENS AND
ENCUMBRANCES REMAINING AT TIME OF SALE.
Ray H. Duff CITY OF CARLSBAD
Signature of Declarant or Agent determining tax. Firm Name

207-15-78

EASEMENT
Grant Deed

TO 409.1 CA (1-70)

THIS FORM FURNISHED BY TITLE INSURANCE AND TRUST COMPANY

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,

RICHARD A. NOWELL AND MARJORY A. NOWELL, husband and wife

hereby GRANT(S) to

CITY OF CARLSBAD, A MUNICIPAL CORPORATION

the following described real property in the CITY OF CARLSBAD
County of SAN DIEGO, State of California:

AN EASEMENT FOR PUBLIC ACCESS OVER THE SOUTHWESTERLY 15
FEET OF LOT 72 OF SHELTER COVE, IN THE CITY OF CARLSBAD,
IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORD-
ING TO MAP THEREOF NO. 5162, FILED IN THE OFFICE OF THE
COUNTY RECORDER OF SAN DIEGO COUNTY, APRIL 23, 1963. ?

Assessor's Parcel No. 207-15-78

As shown on Attachment "A", attached here and made a part hereof.

CERTIFICATE OF ACCEPTAN

This is to certify that the
real property conveyed by the
grant dated May 16, 1973
Richard A. Nowell and Marjory A.

to the City of Carlsbad, California,
a political corporation and/or
governmental agency, is hereby accepted
by the undersigned officer or agent
on behalf of the City Council of the
City of Carlsbad, California, pursuant
to authority conferred by Resolution
#1537 of the City of Carlsbad adopted
on July 2, 1968, and the grantee
consents to the recordation thereof by
its duly authorized officer.

Margaret E. Adams
MARGARET E. ADAMS, City Clerk

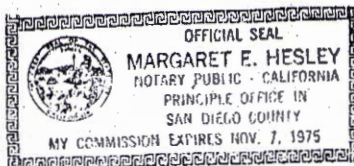
DATED: May 16, 1973

Signature on file

RICHARD A. NOWELL

Signature on file

MARJORY A. NOWELL



(This area for official notarial seal)

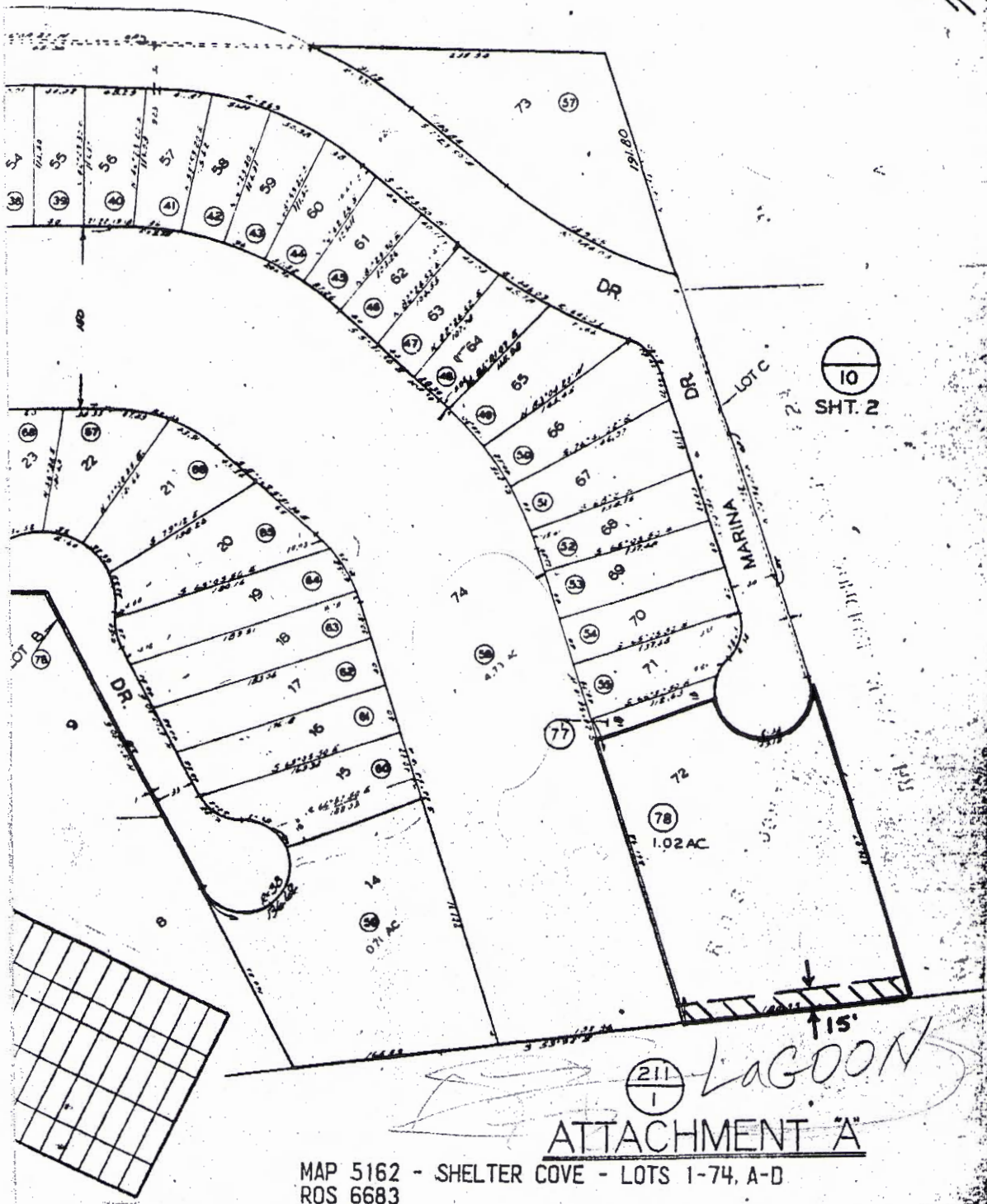
row or Loan No. _____

DIRECTED ABOVE

10
SHT. 1

207-15

1"=100'



10
SHT. 2

211/1 LAGOON
ATTACHMENT A

MAP 5162 - SHELTER COVE - LOTS 1-74, A-D
ROS 6683

GeoSoils Inc.

November 11, 2011

Tu Casa H.O.A.
c/o Mr. Jim Strickland
4747 Marina Drive
Carlsbad, CA 92008

**SUBJECT: Revetment Repair Footprint Reduction Discussion West End, Tu Casa HOA
Revetment Maintenance, CDP #6-10-016**


Dear Mr. Strickland:

At your request GeoSoils Inc. (GSI) is pleased to provide the following discussion of the methodology for reducing the footprint to be entirely landward of the public access easement fronting the Tu Casa site. It is our understanding that the California Coastal Commission (CCC) would require some form of mitigation if the repaired structure encroached into this easement.

Initially, the proposed maintenance and minor import of additional rock was, in GSI's opinion, the minimum amount of work necessary to protect the condominium building foundation from wind waves and boat wakes. The existing footprint of the revetment would have been reduced during the course of the initially proposed maintenance. However, the western ½ of the structure would have encroached into the public access easement. This was primarily a result of the structure slope being determined by the small size of the majority of the existing stone. In order to reduce the footprint of the revetment any further than initially proposed, the western portion of the structure would need to be reconfigured with much larger stone at the toe. A recent assessment of the size of the stone on the structure revealed that by using the existing larger stone and importing about 56 tons (25 cu yds) of additional large stone (as compared to the average stone on site) the revetment could be relocated completely landward of the public access easement.

The large stone solution would work well for the current needs, although it is slightly more costly than a standard revetment, for the following reasons. First the elevation rise required is a relatively small 6-feet. This means that you will require fewer stones with the steeper slope and have a smaller footprint. Second, there is adequate room to construct the revetment at a 1-1.5 to 1 slope providing an inherent stability given the larger rock proposed. Third, the smaller rock available on site would serve as backer stone and would be used to fill voids and assist in rock interlocking.

5741 Palmer Way, Suite D, Carlsbad, CA 92010 wo S-5331.276

EXHIBIT NO. 5
APPLICATION NO. 6-10-016
Geosoils Submittal
 California Coastal Commission

GeoSoils Inc.

The maintenance plans have been modified to reflect this reconfiguration and change in revetment slope at the western portion. The work will take place mostly near or at the proposed toe area, leaving the upper portion of the revetment in place. The contractor will carefully place the collected large stone with the top face of the rock dipping landward. The next slightly smaller stone will be placed against this dipping face. This will lock the revetment stone in place so that the toe will be fixed and the smaller stones will not easily roll down slope towards the lagoon. The maintenance work will be performed under the supervision of this office.

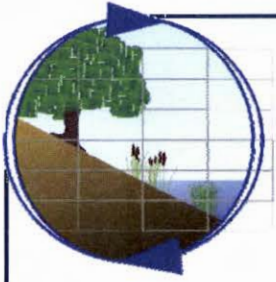
The opportunity to be of service is sincerely appreciated. If you should have any questions, please do not hesitate to contact our office.

Respectfully submitted,



GeoSoils, Inc.
David W. Skelly MS, PE
RCE#47857





Merkel & Associates, Inc.

5434 Ruffin Road, San Diego, CA 92123

Tel: 858/560-5465 • Fax: 858/560-7779

e-mail: associates@merkelinc.com

December 14, 2011

M&A #09-083-02

Ms. Toni Ross
California Coastal Commission
7575 Metropolitan Way
Suite 103
San Diego, CA 92108

Tu Casa Rip Rap Maintenance Work and Public Access Issues (CDP App. 6-10-016)

Dear Toni,

This letter is to reiterate our concerns with respect to proposed condition 10 in the staff report recommending approval of the revetment repairs at the Tu Casa condominium project and to provide you with additional information you have requested in order to facilitate staff reaching a position on whether public access mitigation is appropriate in association with the maintenance activities.

As you are aware, the rock slope was constructed around 1966 as part of the revetment work conducted when Bristol Cove was constructed by excavation of uplands to create a waterway. Agua Hedionda Lagoon abutting the Tu Casa property, is one of the few privately owned coastal waters in California and is held by Cabrillo Power I, LLC (owners of the Encina Generating Station) as it was part of the Rancho Agua Hedionda Spanish land grant.

In May 1973, a 15-foot wide public access easement was placed along the southwesterly boundary of the Tu Casa lot adjacent to the open waters of Agua Hedionda Lagoon. The full text of this easement reads as follows:

An easement for public access over the southwesterly 15 feet of lot 72 of Shelter Cove, in the City of Carlsbad, in the County of San Diego, State of California, according to map thereof No. 5162, filed in the office of the county recorder of San Diego County, April 23, 1963.

(Exhibit 4 of Staff Report for #6-10-016)

Coastal staff has argued that the rock in the easement would be incompatible with the easement itself and has questioned whether the rock was initially present in the area of the easement. However, both the project engineer and the Coastal staff engineer have agreed that the small rock initially placed could not be built to a safe slope at 2:1 or steeper and it would likely quickly lose the effectiveness of the revetment. Since this is the same rock that was placed approximately 45 years ago, it is reasonable to assume that it was placed at 2:1 or more gradual slopes at that time. While we have been unable to locate any documentation as to the initial construction design for the revetment, we have located the 1966 plans for the Bristol Cove Property Owner's Association Wharfage Facility Standards (Moffatt & Nichol Engineers 1966) that apply to the more quiescent waters of the interior cove (Attachment 1). In these plans, the revetment slopes are shown at a 2.5:1 slope. Given the higher energy conditions of the lagoon and similar rock sizing along the Tu Casa southerly shoreline, it is likely this slope was constructed at a comparable gradient. The importance of this information is that either a revetment slope would extend into the subsequently recorded public access easement. Th

EXHIBIT NO. 6

APPLICATION NO.

6-10-016

**Merkel & Associates
Submittal**

easement for public access recorded three years prior to the adoption of the Coastal Act included a 2:1 to 2.5:1 revetment slope constructed approximately seven years prior, does not seem to be incongruous with the standards of the time. Rather, the conflict appears to be with evolving public access standards subsequent to both the revetment placement and the easement recordation.

The Commission staff report notes "[B]y the nature of riprap revetments on the beach, it is recognized that periodic maintenance will be necessary for the revetment to retain its approved form." The revetment originally placed has survived an approximately 45-year period with relatively limited overall degradation. However, the time has come to complete maintenance activities. You have asked for a quantification of the rock to be placed, previously unpermitted rock placed sometime around 1998-1999, and the volume of rock within the original slope. The purpose of this request we understand is to facilitate the Commission's review of whether the work constitutes maintenance or a new project. Based on both our prior meetings and some interesting discussion between Commissioners and staff during the December meeting regarding what constitutes maintenance, I understand that Commission staff reviews more of a totality of change in scale, function, and footprint as greater or lesser than 50% of the original rather than applying an absolute standard. For this reason, I have attempted to provide all of the information with respect to placement necessary to assist in this review. This includes not only volume, but a discussion on footprint of the revetment. Obviously, the function of the revetment remains unchanged from the originally constructed slope.

Volume Estimate for Original Revetment Stone

The initial revetment section was likely a well graded fill of unbacked revetment stone placed at a 2.5:1 slope face on a 2:1 earthen back slope. This is the slope and construction method illustrated for the interior of Bristol Cove shown in the 1966 Moffatt & Nichol drawings (Attachment 1). The slope section illustrated in the available plans shows a gradually thickening section from top of slope to a deep toe key with a 2:1 back cut terminal slope. While not dimensioned on the plan sheets, the revetment can be scaled by horizontal and vertical dimensions as an approximately 3-foot revetment thickness at the top of slope increasing in thickness with divergence of the 2:1 back slope and 2.5:1 revetment slope. The triangular key is situated within the core of the slope as opposed to in front of the slope face. The top elevation of the initially built slope was likely maintained from within Bristol Cove to the shoreline to the outside of the Cove at a design elevation of 6.0 ft NGVD29 (approximately 8.6 ft MLLW). The toe of the slope terminates at approximately -0.6 ft NGVD29 (2.0 ft MLLW). Assuming the lagoon facing slope along Tu Casa were constructed similar to the design sections shown within the Bristol Cove plans and reduced in scale to meet the existing lagoon shoreline grades, the initially constructed slope would include a revetment volume of approximately 1.9 cy per running foot of revetment. For the approximately 180-foot length of the revetment, this translates to 343 cy of stone in the initial shoreline revetment. If the slope were initially constructed at a 2:1 rather than a 2.5:1 angle maintaining an even thickness of as little as 2 feet of rock with a comparable toe embedment, the volume of rock would translate into 1.1 cy per running foot or approximately 197 cy in the initial revetment slope.

Volume Estimate for 1990s Unpermitted Revetment Stone

To evaluate the volume of rock placed sometime around the period Bristol Cove was receiving revetment repair stone, we used aerial photographs and views from the water to distinguish the limits of rock from the native stone. The rock is generally distinguishable by being of a slightly greater size. The rocks placed without benefit of permit were counted individually and the average size of the stone was estimated in the field. A photograph was used to mark the enumerated rocks identified as likely part of the 1998-1999 imported stone. The marked rock was subsequently plotted as

individual rock (red points) and a general footprint (yellow polygon) for presentation in this letter response (Figure 1) The shoreline area affected by the larger stone is approximately 67 feet in length and approximately 7 feet in average width with a maximum width of up to 12 feet. A total of 123 individual stones were identified as likely placed in the late 1990s. In general, these stones are only one to two rocks thick on a bed of the initial revetment stone. The count is based on rock that is substantially larger than the remainder of the shoreline revetment; however, some of the smaller stone of comparable size and shape characteristics as the original rock is integrated in the larger rock mosaic, suggesting a potentially comparable time of placement. For this reason, it is not possible to determine for certain that the smaller rock is not part of the unpermitted fill. For this reason, we have estimated the volume of unpermitted rock in two ways. The first is by estimating volume by rock size. The quantified revetment stone ranges in size from approximately 20-pound stone to as much as 300-lbs stone based on size to weight ratios. The average stone size appears to be approximately 100-lbs to as much as 200-lbs stone. Granitic rip rap is approximately 165 lbs per cubic foot. Based on the quantified rock counts and size class of material, the volume is estimated as 2.8-5.5 cy of unpermitted stone. This approach excluded smaller rock that may or may not have been present on the shoreline prior to placement of larger stone. As such, it would be expected to underestimate the total volume.

As an alternative means of estimating the rock, we measured through the revetment to the smaller rip rap base at several locations and found the large rock layer to range from 0 to 2.4 feet thick with an average of 0.6 feet thick, with the thickest sections being near the upper portions of the placement and thinner areas being found lower on the slope where original riprap is frequently exposed between smaller and less densely placed rocks. Using a volumetric envelope method, the estimated rock volume in the unpermitted stone was 10.4 cy. This second calculation method takes into account increased thickness generated by smaller rock blended into the matrix of larger stone and thus would tend to over estimate the volume of imported rock.

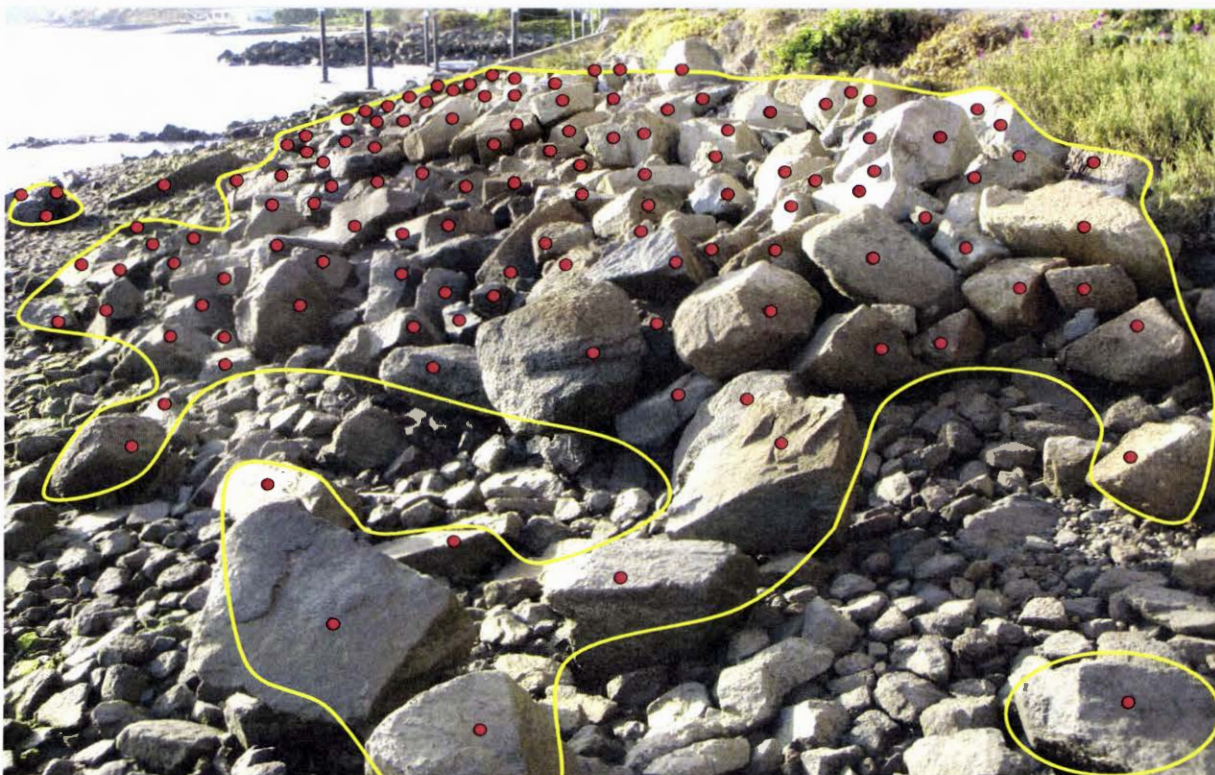


Figure 1. Rock believed to be placed in 1998-1999.

Volume Estimate for Presently Proposed Maintenance

As we have discussed, the proposed revetment work would pull the slumping revetment back to a steeper slope, thus removing it fully from the public access easement but maintaining the repaired project footprint completely within the footprint of placement of the original slope whether it was constructed at a 2:1 or 2.5:1 original slope. This reduction in slope footprint has been proposed to align with Coastal staff's desire to remove revetment from the public access easement, irrespective of whether it was initially present in the easement when recorded. To accomplish this, large boulders would be embedded along the toe of a 1-1.5:1 slope laying back with a subsequent row of large rock locked in behind the keyway stone to gain elevation. Existing small stone would be used both for key support and as backing and locking stone in the steep revetment (Geosols letter November 11, 2011, Attachment 2). As has been discussed, the additional net volume estimated to be required for this work is approximately 25 cy of larger rock. Given the lack of as-built plans for the existing revetment, the volume may vary somewhat as the rock is moved back up the slope and the keyway condition is determined. Further, an exchange of rock, hauling some of the smaller stone away, may be required to pull the revetment completely out of the easement. However, Tu Casa has made a commitment to build the revetment outside of the public access easement to enhance the utility of the recorded easement, even though the pre-Coastal Act revetment was within the easement when initially recorded. As such, smaller rock will be removed as necessary to achieve this commitment.

Analysis of Changes to Revetment Relative to Maintenance Standards

The estimate of rock volume likely used to initially construct the Tu Casa southerly revetment is estimated to be between 197 cy and 343 cy depending upon the slope and construction practices employed in the initial revetment construction. The volume of unpermitted rock that was placed in the late 1990s is estimated to be between 2.8 cy and 10.4 cy (approximately 0.8-5.3% of the total revetment). The proposed work proposes to add approximately 25 cy to the slope (7.2-12.6% of the initial revetment volume). Cumulatively the added rock volume would be between 8% and 18% beyond initial slope revetment volume with an overall reduction in footprint, pulling the revetment toe shoreward of both the present and initial seaward extent.. The addition of larger rock that is proposed is desirable due to changes in the type of watercraft uses in the lagoon since initial construction that dictate prudence of larger more stable rock. The larger rock is critical to facilitate the Coastal staff's goals of eliminating rock from within the public access easement. As indicated earlier, the proposed revetment is to be constructed wholly within the initial revetment envelope, pulling revetment shoreward to the maximum extent practical and achieving a removal of the revetment from the public access easement.

Conclusion

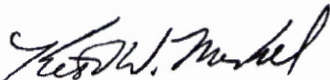
As a result of the changes in the maintenance project that have been proposed, the project results in a net improvement of public access beyond that which existed at the time the access easement was recorded. Based on this, we believe it is inappropriate to require further public access improvements when the project itself is an acknowledged necessary maintenance activity for revetments, results in a reduction in footprint and removal of seaward revetment, and which increases utility of the public access that was initially recorded with the condominium project approval. To require further public access mitigation would reasonably require that the maintenance project be identified as generating some adverse impact to public access. We do not believe such a determination can be made based on the design as it presently stands.

We appreciate your consideration of this information and trust that the materials assist you in formulating an opinion on the matter. We hope to be able to support the staff report after

consideration of the modified revetment design submitted and the quantification of rock volume we are able to provide at this time. In order to be able to support the staff report, we would like the staff to eliminate condition 10 requiring mitigation on the basis that the report was written around both a belief that the rock did not originally extend into the easement and an assumption that rock would remain in the easement beyond the initially approved revetment footprint. Both of these no longer apply.

Please let me know your intent on any modification to the staff report so that we may best prepare for participation at the January 11th hearing.

Sincerely,



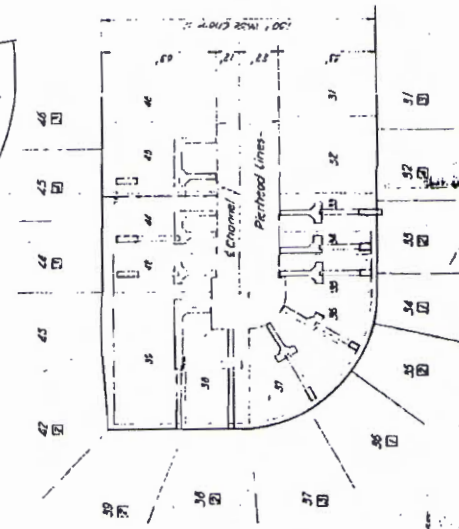
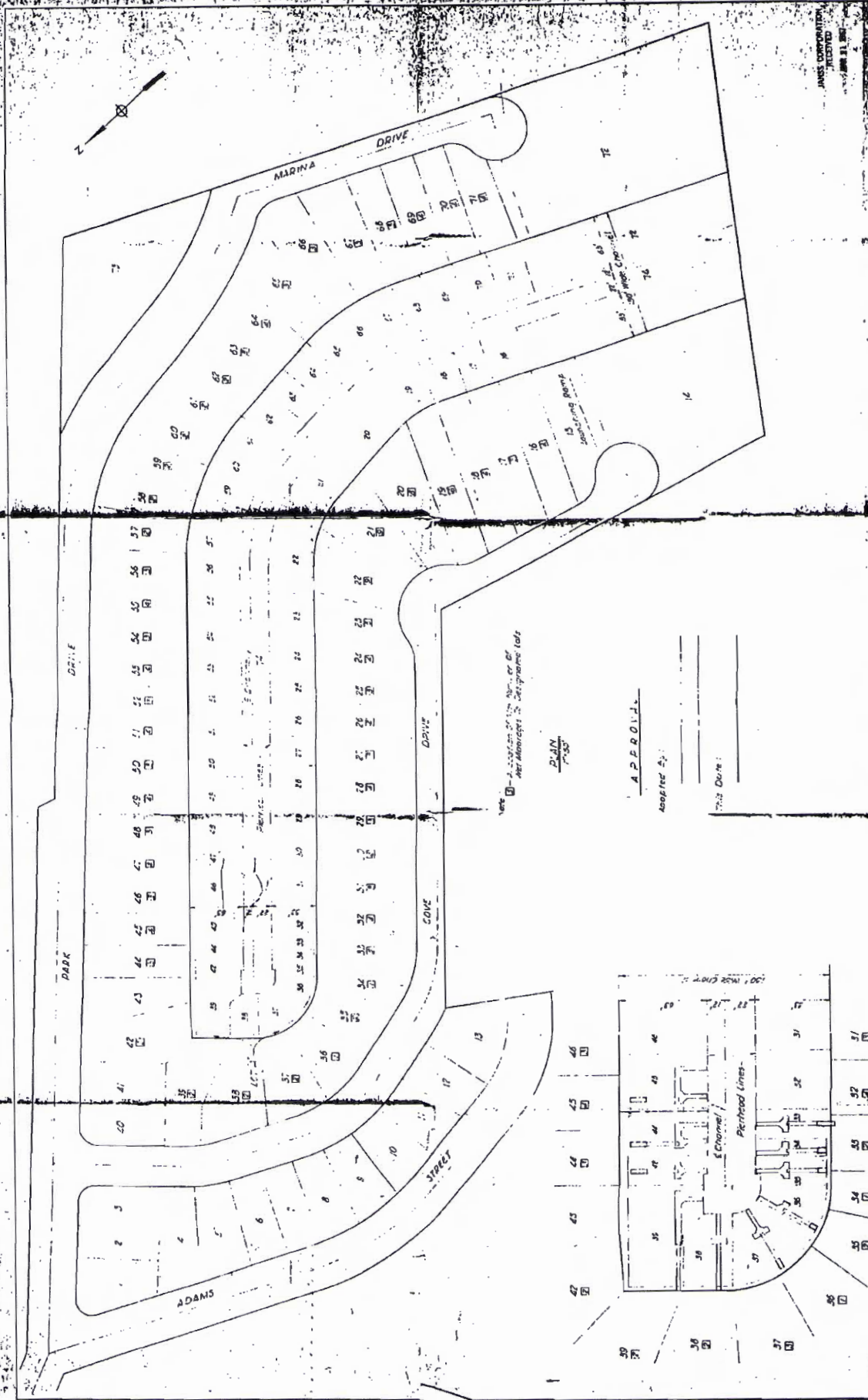
Keith W. Merkel
Principal

Cc: Lee McEachern
Sharilyn Sarb
Jim Strickland

Attachment 1 - Bristol Cove POA Wharfage Facility Standards (Moffatt & Nichol 1966)

Attachment 2 - Revetment Repair Footprint Reduction Tu Casa HOA (Geosoils, November 11, 2011)

**Attachment 1 - Bristol Cove POA Wharfage Facility Standards
(Moffatt & Nichol 1966)**



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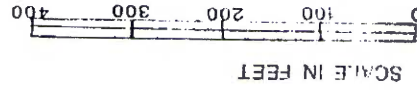
BRISTOL COVE PROPERTY OWNERS ASSOCIATION
RESERVE FACILITY STANDARDS
WET MORTGAGE ALLOCATION

MOFFATT & NICHOL ENGINEERS
1230 BLISS, CALIFORNIA

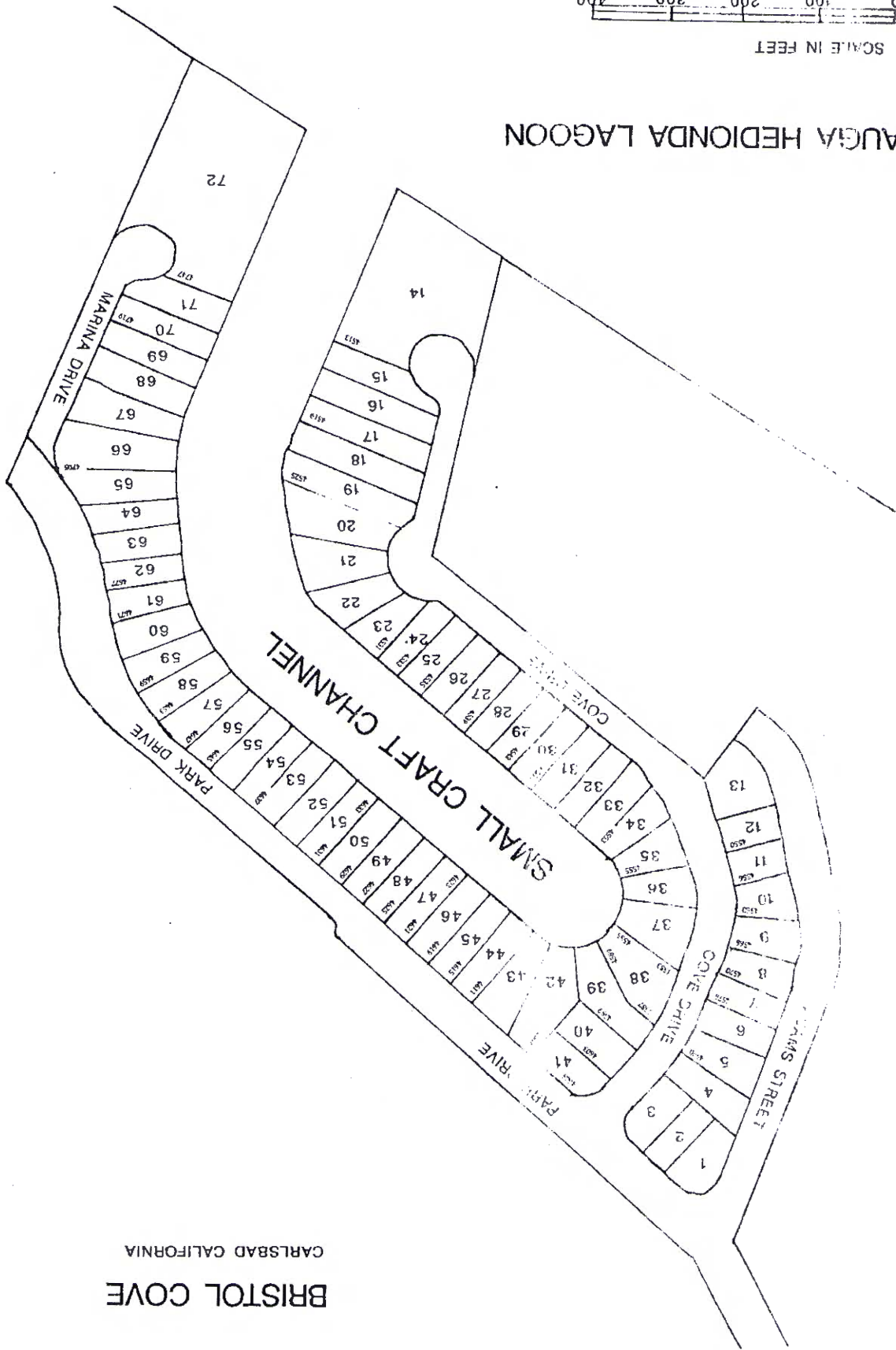
REVISIONS	DATE	BY

APPROVED:

DATE:



AUGA HEDIONDA LAGOON



BRISTOL COVE
CARLSBAD CALIFORNIA

