

**CALIFORNIA COASTAL COMMISSION**

South Coast Area Office  
200 Oceangate, Suite 1000  
Long Beach, CA 90802-4302  
(562) 590-5071

RECORD PACKET COPY

Staff: MV-LB  
Staff Report: 9/18/03  
Hearing Date: 10/7-10/03  
Commission Action:

**Tu 18 a****STAFF REPORT: REVISED FINDINGS****APPLICATION NUMBER:** 5-02-174**APPLICANT:** Erik Anderson**AGENT:** Charlie Williams, MSA**PROJECT LOCATION:** 2210 Channel Road, Newport Beach, Orange County

**PROJECT DESCRIPTION:** Demolition of two existing single family residences and construction of a new, two story, 6,881 square foot, 29 foot high at maximum point, single family residence with an attached four car, 887 square foot garage and a 391 square foot basement. In order to accommodate the proposed basement, 148 cubic yards of grading is proposed. Also proposed is a parcel map to combine the multiple existing lots on which the development described above will occur, into a single legal lot. In addition, reinforcement of the seawall directly in front of the subject property and replacement of the approximately 30 foot long seawall at the adjacent City owned property (2204 Channel Road), is proposed.

Lot Area:	9,262 square feet
Building Coverage:	4,186 square feet
Pavement Coverage:	3,205 square feet
Landscape Coverage:	1,871 square feet
Parking Spaces:	4
Zoning:	R-1
Ht above final grade	29 feet

**COMMISSION ACTION:** August 7, 2003

**COMMISSIONERS ON PREVAILING SIDE:** Desser, Hart, Iseman, Kruer, Curtis, Nava, Peters, Potter, Woolley, and Reilly.

**SUMMARY OF STAFF RECOMMENDATION:**

Staff recommends that the Commission adopt the following revised findings in support of the Commission's action on August 7, 2003, approving the permit, with special conditions.

**LOCAL APPROVALS RECEIVED:** City of Newport Beach, Approval in Concept No. 0314-2002; City of Newport Beach Harbor Permit No. 108-2210.

**SUBSTANTIVE FILE DOCUMENTS:** Letter from AEC Associates, dated July 15, 2003; Letter from Haro, Kasunich and Associates, Inc., dated July 15, 2003; Geotechnical Investigation for Foundation Design, prepared by Geofirm, dated March 12, 2002; Engineer's Assessment of Bulkhead Replacement at 2204 and 2210 Channel Road, prepared by AEC Associates, dated April 8, 2003; Marine Resources Impact Assessment, prepared by Coastal Resources Management, dated March 24, 2003; City of Newport Beach certified Land Use Plan.

**I. STAFF RECOMMENDATION:**

The staff recommends that the Commission adopt the Revised Findings.

**MOTION:**     *I move that the Commission adopt the revised findings in support of the Commission's action on August 7, 2003 concerning approval with conditions of coastal development permit No. 5-02-174.*

**STAFF RECOMMENDATION OF APPROVAL:**

Staff recommends a **YES** vote on the motion. Passage of this motion will result in the adoption of revised findings as set forth in this staff report. The motion requires a majority vote of the members from the prevailing side present at the August 7, 2003 hearing, with at least three of the prevailing members voting. Only those Commissioners on the prevailing side of the Commission's action are eligible to vote on the revised findings.

**RESOLUTION TO ADOPT REVISED FINDINGS:**

The Commission hereby adopts the findings set forth below for approval with conditions of coastal development permit No. 5-02-174 on the ground that the findings support the Commission's decision made on August 7, 2003 and accurately reflect the reasons for it.

## II. 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 this permit is reported to the Commission. 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. Inspections. The Commission staff shall be allowed to inspect the site and the project during its development, subject to 24-hour advance notice.
5. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

## III. SPECIAL CONDITIONS

### 1. Final Bulkhead Reinforcement Plans

**PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit, for the Executive Director's review and approval, final design and construction plans for the bulkhead reinforcement. The final plans shall be signed and approved by the applicant's engineering consultant.

### 2. Basement Design and Construction

- A. Final design and construction plans for the basement shall be consistent with the geotechnical recommendation which requires that the basement will be designed to resist hydrostatic loading, to accommodate hydraulic uplift forces and to incorporate fail proof waterproofing. **PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit, for the Executive Director's review and approval, evidence that an appropriately licensed professional has reviewed and approved all final design and construction plans for the basement and certified that each of those final plans is consistent with the requirement identified above.

- B. 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 a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

3. **Assumption of Risk, Waiver of Liability and Indemnity**

By acceptance of this permit, the applicant acknowledge and agrees (i) that the site may be subject to hazards due to excavation below ground water level on a water front site; (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.

4. **Conformance of Design and Construction Plans to Geotechnical Information**

- A. All final design and construction plans, including grading, foundations, site plans, elevation plans, and drainage plans, shall be consistent with all recommendations contained in the Geotechnical Investigation prepared by Geofirm, dated March 12, 2002. **PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit, for the Executive Director's review and approval, evidence that the geotechnical consultant has reviewed and approved all final design and construction plans and certified that each of those final plans is consistent with all of the recommendations specified in the above-referenced geologic evaluation approved by the California Coastal Commission for the project site.
- B. 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 a Commission amendment to this coastal development permit unless the Executive

**5. Pre- & Post-Construction Eelgrass Surveys**

- A. Pre Construction Eelgrass Survey. A valid pre-construction eelgrass (*Zostera marina*) survey shall be completed during the period of active growth of eelgrass (typically March through October). The pre-construction survey shall be completed prior to the beginning of construction and shall be valid until the next period of active growth. The survey shall be prepared in full compliance with the "Southern California Eelgrass Mitigation Policy" Revision 8 (except as modified by this special condition) adopted by the National Marine Fisheries Service and shall be prepared in consultation with the California Department of Fish and Game. The applicant shall submit the eelgrass survey for the review and approval of the Executive Director within five (5) business days of completion of each eelgrass survey and in any event no later than fifteen (15) business days prior to commencement of any development. If the eelgrass survey identifies any eelgrass within the project area which would be impacted by the proposed project, the development shall require an amendment to this permit from the Coastal Commission or a new coastal development permit.
- B. Post Construction Eelgrass Survey. Within one month after the conclusion of construction, the applicants shall survey the project site to determine the extent of eelgrass that was adversely impacted. The survey shall be prepared in full compliance with the "Southern California Eelgrass Mitigation Policy" Revision 8 adopted by the National Marine Fisheries Service and shall be prepared in consultation with the California Department of Fish and Game. The applicants shall submit the post-construction eelgrass survey for the review and approval of the Executive Director within thirty (30) days after completion of the survey. If any adverse impacts are identified, the applicant shall submit, for the review and approval of the executive director, a mitigation plan addressing the impacts. The mitigation plan shall reflect that the applicants shall replace all impacted eelgrass at a minimum 1.2:1 ratio on-site, or at another location, in accordance with the Southern California Eelgrass Mitigation Policy. The exceptions to the required 1.2:1 mitigation ratio found within SCEMP shall not apply.

**6. Eelgrass Protection Plan**

- A. All eelgrass at the project site shall be protected during all phases of construction, and specifically during the bulkhead reinforcement phase, to ensure no loss of eelgrass. The applicant shall identify all eelgrass present in the project vicinity pursuant to special condition 6 above. The applicant shall take all necessary measures to ensure that there is no disruption to the on site eelgrass.

**B. PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit, for the Executive Director's review and approval, an Eelgrass Protection Plan, prepared by a licensed professional, outlining the specific measures to be employed to ensure no disruption of the eelgrass occurs as a result of the project. The Eelgrass Protection Plan shall specifically include measures to be employed during the bulkhead reinforcement phase of construction.

**7. Pre-construction *Caulerpa Taxifolia* Survey**

- A. Not earlier than 90 days nor later than 30 days prior to commencement or re-commencement of any development authorized under this coastal development permit (the "project"), the applicants shall undertake a survey of the project area 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 applicants shall submit the survey:
  - i. for the review and approval of the Executive Director; and
  - ii. 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 (858/467-4218) or Robert Hoffman, National Marine Fisheries Service (562/980-4043).
- D. If *Caulerpa taxifolia* is found within the project or buffer areas, the applicants shall not proceed with the project until 1) the applicants provide evidence to the Executive Director that all *C. taxifolia* discovered within the project area and all *C. taxifolia* discovered within the buffer area have been eliminated in a manner that complies with all applicable governmental approval requirements, including but not limited to those of the California Coastal Act, or 2) the applicants have revised the project to avoid any contact with *C. taxifolia*. No revisions 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 legally required.

**8. CONSTRUCTION RESPONSIBILITIES AND DEBRIS REMOVAL**

The permittee shall comply with the following construction-related requirements:

- (a) No construction materials, equipment, debris, or waste shall be placed or stored where it may be subject to tidal and wave erosion and dispersion.
- (b) Any and all debris resulting from construction activities shall be removed from the site within 10 days of completion of construction.
- (c) Machinery or construction materials not essential for project improvements shall not be allowed at any time in the intertidal zone.
- (d) Sand from the beach, cobbles, or shoreline rocks shall not be used for construction material.
- (e) If turbid conditions are generated during construction a silt curtain shall be utilized to control turbidity.
- (f) Measures shall be taken to ensure that barges do not ground and impact eelgrass sites.
- (g) Floating booms shall be used to contain debris discharged into coastal waters and any debris discharged shall be removed as soon as possible but no later than the end of each day.
- (h) Non-buoyant debris discharged into coastal waters shall be recovered by divers as soon as possible after loss.
- (i) Reasonable and prudent measures shall be taken to prevent all discharge of fuel or oily waste from heavy machinery, pile drivers, or construction equipment or power tools into coastal waters. The applicant and applicant's contractors shall have adequate equipment available to contain any such spill immediately.
- (j) All stock piles and construction materials shall be covered, enclosed on all sides, shall be located as far away as possible from drain inlets and any waterway, and shall not be stored in contact with the soil.
- (k) All debris and trash shall be disposed of in the proper trash and recycling receptacles at the end of each construction day.
- (l) The applicant shall use the least damaging alternative for the construction of pilings and any other activity that will disturb benthic sediments. The applicant shall limit, to the greatest extent practicable, the suspension of benthic sediments into the water column.

**9. Location of Debris Disposal Site**

The applicant shall dispose of all demolition and construction debris resulting from the proposed project at an appropriate location. If the disposal site is located within the coastal zone, a coastal development permit or an amendment to this permit shall be required before disposal can take place.

**10. Deed Restriction**

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

**IV. FINDINGS AND DECLARATIONS:**

The Commission hereby finds and declares:

**A. Project Description and Location**

The applicant proposes to demolish two existing single family residences and construct a new, two story, 6,881 square foot, 29 foot high at maximum point, single family residence with an attached four car, 887 square foot garage and a 391 square foot basement. In order to accommodate the proposed basement, 148 cubic yards of grading is proposed. Also proposed is a parcel map to combine the multiple existing lots, on which development described above will occur, into a single legal lot. In addition, reinforcement of the bulkhead directly in front of the subject property and replacement of the approximately 30 foot long bulkhead at the adjacent City owned property, are proposed. No fill will result as part of the proposed development.

The existing bulkheads at the residential site (2210 Channel Road) and at the adjacent City-owned property (2204 Channel Road) are deteriorating and will no longer provide adequate support. The existing bulkheads do not meet current City standards in terms of width and depth below the mudline. Therefore, the City is requiring the applicant to bring the bulkhead at the residential site up to code. The applicant is also proposing to replace the bulkhead at the City site. In return, the cost of rebuilding the City bulkhead will be credited toward lease payments for the public area occupied by the applicant's bulkhead as proposed.



The current location of the bulkhead at the residential site is channelward of the property line. Because the bulkhead is to be reinforced from the landward side, no change to the bulkhead's existing location will occur. The bulkhead at the subject site is approximately 103 feet long. The bulkhead reinforcement work will occur entirely on the landward side of the bulkhead. No fill will result as part of the proposed development. The proposed bulkhead reinforcement would involve leaving the existing bulkhead in place and constructing a minimum of eleven, 30-inch diameter caissons, shotcrete fill between the existing bulkhead and new caissons, a new grade beam and tiebacks. The new tiebacks would be connected to the new grade beam.

The proposed bulkhead replacement would relocate the bulkhead at the City's lot back to the property line with the exception of the approximately four southernmost feet, where it connects to the bulkhead at the applicant's lot. At that point the bulkhead is proposed to curve channelward to join with the bulkhead at the applicant's lot. The bulkhead at the adjacent City site is approximately 30 feet long. The existing timber wall will be replaced with a new concrete bulkhead.

Final design and construction plans for the proposed bulkhead reinforcement have not yet been submitted. Information such as the number and spacing of the caissons and the width of the reinforcing wall are not yet known, but should be included on the final plans. As a condition of approval the applicant shall submit the final design and construction plans for the bulkhead reinforcement portion of the proposed project.

Pre-construction Eelgrass and *Caulerpa taxifolia* Surveys were conducted at the subject site by Coastal Resources Management on March 24, 2003. Eelgrass was found at the subject site (976.5 square feet total), but none is expected to be adversely impacted by the proposed project (see exhibit J). No *Caulerpa* was found at the project site.

The applicant indicates that the location of the disposal site for the excess cut material is "a certified County disposal site." A special condition is imposed that notifies the applicant that if the disposal site is located within the coastal zone, an amendment to this permit or a new coastal development permit is required.

The subject site fronts on Newport Harbor and is between the first public road and the sea. The nearest public access in the project vicinity is located approximately 100 feet north of the subject site at a small public sandy beach. Public access is also available approximately 2 blocks south of the subject site at the wide sandy public beach that runs the length of the Balboa Peninsula and at the Jetty View Park.

**B. Protective Structures**

Section 30235 of the Coastal Act states:

*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. Existing marine structures causing water stagnation contributing to pollution problems and fish kills should be phased out or upgraded where feasible.*

Section 30253 of the Coastal Act states in part:

*New development shall:*

- (1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.*
- (2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area...*

The existing bulkhead (seawall) was built in the 1950's. It is deteriorating and does not meet current City standards. An Engineering Assessment was prepared for the bulkhead replacement portion of the proposed project by AEC Associates, dated April 8, 2003 (see exhibit G). The Engineering Assessment finds:

- 1. The height of the existing seawall is 13.5 feet and the pile penetration in to the soil is only 7.8 feet. The pile penetration to the wall height ratio is unusually low. Our calculations indicated that the safety factor (i.e. capacity/demand) for overturning, which is supposed to be over 1.75, is less than 1.0. The existing seawall is not safe as it is.*
- 2. The wall thickness is only 9 inches and the concrete does not appear to be in good condition. When the 9 inch thickness of the existing wall is compared with the required thickness of 12 inches for the new wall, the existing walls inadequacy becomes apparent.*

The existing bulkhead does not comply with current City codes regarding the strength and height requirements of the City of Newport Beach. Due to age, poor quality concrete, inadequate steel reinforcement, and/or deficient tieback systems, aging bulkheads in Newport Beach, such as the one at the subject site, are commonly upgraded when redevelopment occurs.

A bulkhead is required at the subject site to protect the structural integrity of the lots from tidal activity. In addition, the bulkhead is necessary to protect the adjacent residence from tidal activity. If the bulkhead were removed and not replaced, tidal activity would erode the project site and eventually the adjacent lots, destabilizing existing development at those sites which includes a single family residence. Therefore, the proposed bulkhead reinforcement at the applicant's property (which will not result in any fill) and the proposed replacement at the adjacent City owned property are necessary to protect an existing structure. Because the proposed bulkhead replacement, as conditioned, will be similar in design and location, it will not create adverse impacts on shoreline sand supply. Thus, maintenance of a functional bulkhead is not only allowable under the Coastal Act, but Section 30235 requires the Commission to approve it.

### **C. Marine Resources**

Section 30230 of the Coastal Act states:

*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 of the Coastal Act states:

*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.*

#### **1. Water Quality**

##### **a. Site Drainage**

The project site fronts on Newport Harbor. Drainage from the site is proposed to be pumped back to the street. However, drainage from the street will enter the City's storm drain system which empties into Newport Harbor (Lower Newport Bay). Newport Bay is on the federal Clean Water Act 303(d) list of "impaired" water bodies. See 33 U.S.C. Section 1313(d). The designation as "impaired" means that water quality within the harbor

does not meet State and/or Federal water quality standards designed to meet the 1972 Federal Clean Water Act goal established for this water body. The listing is made by the California Regional Water Quality Control Board, Santa Ana Region (RWQCB), and the State Water Resources Control Board (SWRCB), and confirmed by the U.S. Environmental Protection Agency. Further, the RWQCB has targeted the Newport Bay watershed, which would include Newport Harbor, for increased scrutiny as a higher priority watershed under its Watershed Initiative. Sections 30230 and 30231 of the Coastal Act require the protection of biological productivity, public recreation, and marine resources.

Development adjacent to coastal waters has the potential to impact water quality and marine resources. The bay provides an opportunity for water oriented recreation and also serves as a home for marine habitat. The coastal recreational activities and the sensitivity of the bay habitat necessitate that water quality issues are addressed during the review of this project.

The proposed residential development has impervious surfaces, such as roofs where pollutants such as particulate matter may settle, as well as driveways where pollutants such as oil and grease from vehicles may drip. During storm events, the pollutants which have collected upon the roof and upon other impervious surfaces created by the proposed project may be discharged from the site into the storm water system and eventually into coastal waters which can become polluted from those discharges. Water pollution results in decreases in the biological productivity of coastal waters.

Typically, water quality impacts to coastal waters can be avoided or minimized by directing storm water discharges from roof areas and other impervious surfaces to landscaped areas where pollutants may settle out of the storm water. In addition, reducing the amount of impervious surface area and increasing pervious areas, allowing water to infiltrate, can improve water quality by decreasing the amount of run-off leaving the site. Also directing runoff to filtration devices such as trench drains when it cannot feasibly be directed to landscaped areas further increases water quality.

The applicant has submitted a grading plan depicting the site drainage. The grading/drainage plan indicates that most of the site drainage will be directed to landscaped areas to the maximum extent feasible. The remaining site drainage will be directed to a pump and pumped to the street. The drainage lines that lead to the pump will be perforated to allow water to permeate through the site as it travels to the pump. In addition, the pump will be connected via perforated pipe to a drainage pit, which will collect overflow, allowing it to permeate back into the site. Thus, as proposed the site drainage will permeate on site to the maximum extent feasible, and untreated runoff from the site will be minimized. Therefore the Commission finds that the project will protect coastal water quality and the related recreational activities, marine resources and biological productivity. Therefore, with regard to site drainage, the Commission finds that the proposed development is consistent with Sections 30230 and 30231 which require that coastal water quality be maintained and enhanced.

b. Basement Dewatering

The proposed development includes 148 cubic yards of excavation to accommodate a 375 square foot basement. A Geotechnical Investigation was prepared for the site by Geofirm and is dated March 12, 2002. The Geotechnical Investigation observed a maximum ground water depth of 8.8 feet below grade. The floor of the basement will be located approximately 10 feet below grade, below anticipated groundwater levels. Thus, de-watering will be necessary during construction of the basement. De-watering is not anticipated to be necessary once construction is complete.

Sections 30230 and 30231 of the Coastal Act require that adverse effects from the proposed de-watering on coastal waters and the marine environment be minimized. In order to assure that these adverse effects are minimized, best management practices (BMPs) must be incorporated into the project. BMPs are used for many reasons including to reduce the magnitude of pollutants introduced into coastal waters.

The proposed de-watering during construction will involve the following measures. The groundwater is proposed to be pumped from screened well points into a desilting tank where suspended solids will be allowed to settle out. From that point the water will gravity flow into an adjacent water storage tank, allowing further settling to occur. Water samples will be taken at that point. Clean water will be pumped either into the storm drain (which ultimately flows into Newport Harbor) or will be pumped directly into the harbor.

In addition, the proposed de-watering project has received approval from the California Regional Water Quality Control Board (RWQCB), Santa Ana Region (see exhibit D). Under the terms of Order No. 98-67, the de-watering project is required to be consistent with Monitoring and Reporting Program No. 98-67-144, which specifies the frequency of sampling and the constituents to be monitored.

The Geotechnical investigation prepared for the proposed project states:

*"Groundwater is anticipated above the required construction excavations and the future basement level at all times. Thus dewatering of the site should be anticipated for basement construction and fail proof waterproofing of subgrade construction will be required. Retaining walls must be designed to resist partial hydrostatic loading and the foundation/basement slab will need to be designed to accommodate hydraulic uplift forces. A possible rise in ground water to elevation 8 feet, 6.5+/- feet above the anticipated basement floor elevation, should be considered in hydraulic uplift forces and hydrostatic loading on retaining walls."*

If the proposed basement level is designed to resist hydrostatic loading and to accommodate hydraulic uplift forces and fail proof waterproofing is incorporated into the design, as recommended in the Geotechnical Investigation, the likelihood that de-watering may be needed after construction is substantially decreased. If de-watering does not need to occur after construction, the ground water will remain in place, eliminating the need for it to be pumped to the storm drain and ultimately to the ocean. Pumping ground water introduces the possibility of contact with contaminants during the pumping and discharge process. Such contaminants, along with any that may already exist in the ground water, are then discharged into coastal waters. Thus, if pumping is avoided, adverse impacts to coastal waters are minimized.

It appears to be the applicant's intent to construct the basement level as recommended by the geotechnical consultant. However, it is not explicitly stated in the application. Therefore, in order to assure that the basement level is constructed in a manner that will minimize the need for extended de-watering, and thus minimize adverse impacts to coastal waters, a special condition is imposed which requires that the basement level be designed and constructed to resist hydrostatic loading, to accommodate hydraulic uplift forces, and to incorporate fail proof waterproofing, per the geotechnical recommendations. The applicant shall, as a condition of approval, submit evidence that the proposed project has been reviewed and approved by an appropriate licensed professional, indicating that the basement is designed to resist hydrostatic loading, to accommodate hydraulic uplift forces and to incorporate fail proof waterproofing.

Best management practices have been incorporated into the proposed project's de-watering component. These include directing the groundwater to settling tanks prior to discharge, and conformance with the sampling and monitoring requirements of the RWQCB. In addition to these measures, the project has been conditioned to assure that the basement level will be designed to resist hydrostatic loading, to accommodate hydraulic uplift forces, and to incorporate fail proof waterproofing. This special condition is necessary to minimize the likelihood of future de-watering and associated adverse water quality impacts. Therefore, the Commission finds, that as conditioned, the proposed development is consistent with Sections 30230 and 30231 which require that coastal water quality be maintained and enhanced.

c. Temporary Construction Related Impacts due to Bulkhead Replacement

The proposed project includes reinforcement of the bulkhead at the residential lot and replacement of the existing bulkhead at the adjacent City owned lot. The proposed bulkhead work will take place adjacent to the coastal waters and marine environment of Newport Harbor. The storage or placement of construction material, debris, or waste in a location where it could be discharged into coastal waters would result in an adverse effect on the marine environment. To reduce the potential for construction related impacts on water quality, the Commission imposes a special condition requiring, but not limited to, the appropriate storage and handling of construction equipment and materials to minimize the potential of pollutants to enter coastal waters. In order to avoid adverse construction-related impacts upon marine resources, Special Condition No. 8 outlines construction-related requirements to provide for appropriate construction methods as well as the safe storage of construction materials and the safe disposal of construction debris. The Commission imposes Special Condition No. 8 to reduce the potential for construction related impacts to water quality. As conditioned, the Commission finds that the development conforms with Sections 30230 and 32031 of the Coastal Act.



2. Eelgrass and other Sensitive Species Impacts

a) Eelgrass

Section 30230 of the Coastal Act requires that special protection be given to areas and species of special biological significance. Eelgrass is considered worthy of protection because it functions as important habitat for a variety of fish and other wildlife, according to the Southern California Eelgrass Mitigation Policy (SCEMP) adopted by the National Marine Fisheries Service (NMFS), the U.S. Fish and Wildlife Service (USFWS), and the California Department of Fish and Game (CDFG).

The applicant has submitted a Marine Resources Impact Assessment (Assessment), prepared by Coastal Resources Management, dated March 24, 2003, which includes an eelgrass survey. The eelgrass survey identifies the presence of 976.5 square feet of eelgrass in the project vicinity (see exhibit J). The proposed project is not expected to create adverse impacts on the eelgrass.

The proposed bulkhead work will be conducted from both the land and water sides of the project. Vessels are proposed to be used during construction, but the applicant's contractor has stated that anchoring will not be required. Thus, construction methods are not expected to adversely impact the eelgrass.

A 43 square foot patch of eelgrass has been identified immediately adjacent to the existing bulkhead. The proximity of the bulkhead reinforcement work to the 43 square feet of eelgrass means the possibility of inadvertent and unexpected impacts to the eelgrass may occur. Although no eelgrass impacts are expected, protection of this 43 square foot patch in particular, as well as the entire 976.5 square feet of eel grass identified in the project vicinity, must be assured. Thus, increased measures are necessary to assure eelgrass protection. Therefore a special condition is imposed which requires the applicant to prepare an Eelgrass Protection Plan specifically outlining how the eelgrass will be protected during construction.

The eelgrass survey submitted with the applications was conducted on March 24, 2003. Due to the ephemeral nature of eelgrass, however, an eelgrass certification is only valid for 120 days. More than 120 days has elapsed since the survey was conducted. In addition, a coastal development permit does not expire for two years and may be extended. Thus between the date of the eelgrass survey included in the Assessment, and commencement of construction, the amount of eelgrass present at the subject site could increase. In addition, even though the on-site eelgrass not expected to be impacted by the proposed project, there is the potential that construction activity may result in unanticipated impacts to the eelgrass. If unanticipated impacts to eelgrass result from the proposed project, these additional adverse impacts would need to be mitigated. Therefore, measures to avoid or minimize potential unanticipated impacts must be in place in order for the project

to be found consistent with Section 30230 of the Coastal Act. Therefore, the Commission imposes Special Condition No. 5 which requires that a current pre-construction eelgrass survey be conducted during the period of active growth of eelgrass (typically March through October). The pre-construction survey shall be completed within 120 days prior to the beginning of construction and shall be valid until the next period of active growth. The pre-construction survey will identify whether any additional eelgrass has established since the time of the last survey. If the eelgrass survey identifies new eelgrass within the project area which could be impacted by the proposed project, the development shall require an amendment to this permit from the Coastal Commission or a new coastal development permit.

The survey shall be prepared in full compliance with the SCEMP adopted by the Marine Fisheries Service. This pre-construction survey will document the presence of any eelgrass in the project area. The applicant shall submit the updated eelgrass survey for the review and written approval of the Executive Director within five (5) working days of completion of the updated survey and no later than ten (10) working days prior to commencement of construction

b) Caulerpa taxifolia

Recently, a non-native and invasive aquatic plant species, *Caulerpa taxifolia* (herein *C. taxifolia*), has been discovered in parts of Huntington Harbor (Emergency Coastal Development Permits 5-00-403-G and 5-00-463-G). Huntington Harbor provides similar habitat to that found in Newport Harbor.

*C. taxifolia* is a tropical green marine alga that is popular in the aquarium trade because of its attractive appearance and hardy nature. In 1984, this seaweed was introduced into the northern Mediterranean. From an initial infestation of about 1 square yard it grew to cover about 2 acres by 1989, and by 1997 blanketed about 10,000 acres along the coasts of France and Italy. Genetic studies demonstrated that those populations were from the same clone, possibly originating from a single introduction. This seaweed spreads asexually from fragments and creates a dense monoculture displacing native plant and animal species. In the Mediterranean, it grows on sand, mud and rock surfaces from the very shallow subtidal to about 250 ft depth. Because of toxins in its tissues, *C. taxifolia* is not eaten by herbivores in areas where it has invaded. The infestation in the Mediterranean has had serious negative economic and social consequences because of impacts to tourism, recreational diving, and commercial fishing<sup>1</sup>.

---

<sup>1</sup> References

Meinesz, A. (Translated by D. Simberloff) 1999. Killer Algae. University of Chicago Press

Chisholm, J.R.M., M. Marchioretti, and J.M. Jaubert. Effect of low water temperature on metabolism and growth of a subtropical strain of *Caulerpa taxifolia* (Chlorophyta). *Marine Ecology Progress Series* 201:189-198

Ceccherelli, G. and F. Cinelli. 1999. The role of vegetative fragmentation in dispersal of the invasive alga *Caulerpa taxifolia* in the Mediterranean. *Marine Ecology Progress Series* 182:299-303



Because of the grave risk to native habitats, in 1999 *C. taxifolia* was designated a prohibited species in the United States under the Federal Noxious Weed Act. In addition, in September 2001 the Governor signed into law AB 1334 which made it illegal in California for any person to sell, possess, import, transport, transfer, release alive in the state, or give away without consideration various *Caulerpa* species including *C. taxifolia*.

In June 2000, *C. taxifolia* was discovered in Aqua Hedionda Lagoon in San Diego County, 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, *C. taxifolia* has been shown to tolerate water temperatures down to at least 50°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 *C. taxifolia* poses to California's marine environment, the Southern California *Caulerpa* Action Team, SCCAT, was established to respond quickly and effectively to the discovery of *C. taxifolia* 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 *C. taxifolia* infestations.

The applicant has submitted a *Caulerpa Taxifolia* survey dated March 24, 2003. The survey found that no *Caulerpa* was present in the project vicinity. A coastal development permit is valid for two years from the date of Commission action. In addition, the life of the permit may be extended beyond that. There is no guarantee that the project will commence immediately upon receipt of the coastal development permit. *Caulerpa Taxifolia* could establish within the project vicinity between the time of the last survey and commencement of construction. For this reason the Commission requires a survey to be conducted prior to commencement of construction.

---

Smith C.M. and L.J. Walters. 1999. Fragmentation as a strategy for *Caulerpa* species: Fates of fragments and implications for management of an invasive weed. *Marine Ecology* 20:307-319.

Jousson, O., J. Pawlowski, L. Zaninetti, A. Meinesz, and C.F. Boudouresque. 1998. Molecular evidence for the aquarium origin of the green alga *Caulerpa taxifolia* introduced to the Mediterranean Sea. *Marine Ecology Progress Series* 172:275-280.

Komatsu, T. A. Meinesz, and D. Buckles. 1997. Temperature and light responses of the alga *Caulerpa taxifolia* introduced into the Mediterranean Sea. *Marine Ecology Progress Series* 146:145-153.

Gacia, E. C. Rodriguez-Prieto, O. Delgado, and E. Ballesteros. 1996. Seasonal light and temperature responses of *Caulerpa taxifolia* from the northwestern Mediterranean. *Aquatic Botany* 53:215-225.

Belsher, T. and A. Meinesz. 1995. Deep-water dispersal of the tropical alga *Caulerpa taxifolia* introduced into the Mediterranean. *Aquatic Botany* 51:163-169.

If *C. taxifolia* is present, any project that disturbs the bottom could cause its spread by dispersing viable tissue fragments. In order to assure that the proposed project does not cause the dispersal of *C. taxifolia*, the Commission imposes Special Condition No. 7. Special Condition No. 7 requires the applicant, prior to commencement of development, to survey the project area for the presence of *C. taxifolia*. If *C. taxifolia* is present in the project area, no work may commence and the applicants shall seek an amendment or a new permit to address impacts related to the presence of the *C. taxifolia*, unless the Executive Director determines that no amendment or new permit is required.

**D. Hazard**

Section 30253 of the Coastal Act states, in part:

*New development shall:*

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

The subject site is a harbor front lot. The proposed project includes 148 cubic yards of cut to accommodate the proposed basement. Sub-grade excavation that extends below groundwater level on a waterfront lot creates the potential for instability at the site. Section 30253 of the Coastal Act requires that new development assure stability and structural integrity. A site specific Geotechnical Investigation was prepared for the proposed development by Geofirm, dated March 12, 2002. Preparation of the Geotechnical Investigation included review of pertinent geotechnical maps and literature; reconnaissance of the property and nearby areas; excavation and logging of two exploratory borings in order to determine the distribution and character of subsurface materials, the elevation of groundwater, and to obtain bulk soil samples for laboratory testing; and monitoring of groundwater levels to evaluate groundwater response in relation to tidal fluctuation.

The Geotechnical investigation prepared for the proposed project states:

*"Groundwater is anticipated above the required construction excavations and the future basement level at all times. Thus dewatering of the site should be anticipated for basement construction and fail proof waterproofing of subgrade construction will be required. Retaining walls must be designed to resist partial hydrostatic loading and the foundation/basement slab will need to be designed to accommodate hydraulic uplift forces. A possible rise in ground water to elevation 8 feet, 6.5+/- feet above the anticipated basement floor elevation, should be considered in hydraulic uplift forces and hydrostatic loading on retaining walls."*

Regarding the feasibility of the proposed project the Geotechnical Investigation concludes:

*"Development of the property for proposed construction is considered geotechnically feasible and safe if the recommendations of this report are followed in design, construction, and long-term maintenance of the property."*

The geotechnical consultant has found that the proposed development is feasible provided the recommendations contained in the Geotechnical Investigation prepared by the consultant are implemented in design and construction of the project. The geotechnical recommendations address grading, removal of existing improvements, compaction standards, acceptable construction slopes, structural design of foundations, structural design of retaining walls, monitoring, dewatering, concrete, seismic design, hardscape design, utility trench backfill, foundation plan review, observation and testing, and jobsite safety. In order to assure that risks are minimized, the geotechnical consultant's recommendations must be incorporated into the design of the project. As a condition of approval the applicant shall submit grading and foundation plans indicating that the recommendations contained in the Geotechnical Investigation prepared by Geofirm, dated March 12, 2002, have been incorporated into the design of the proposed project.

In addition, the Commission imposes a special condition which makes the applicant and any future owners aware of the inherent risk involved with excavation below ground water level on waterfront lots.

The Commission finds that only as conditioned as described above, can the proposed development be found to be consistent with Section 30253 of the Coastal Act. As conditioned, the Commission finds the proposed development is consistent with Section 30253 of the Coastal Act which requires that risks be minimized and geologic stability be assured.

#### **E. Parcel Map**

The proposed project includes lot consolidation and recordation of a new parcel map. The new parcel map is to be recorded to combine two existing lots (23 and 24), a third lot known as the northern half of Lot 22<sup>2</sup>, and two other lots created out of lettered lot "M,"<sup>3</sup> all

---

<sup>2</sup> Lot 22 was divided into two separate lots when the northern half of the lot was sold off along with Lot 23, in 1925. However, the two portions were never renumbered. For convenience, this report continues the tradition of referring to the entire area that was originally created as Lot 22 (as part of a 1923 subdivision) as "Lot 22." The portion of Lot 22 subject to this permit is the same portion that was sold with Lot 23 in 1925, and which has technically continued to exist as a separate parcel ever since. Thus, it is its own, separate legal lot, but it is nevertheless referred to herein as the "northern half of Lot 22."

<sup>3</sup> Much in the same way that Lot 22 was divided in two in 1925 (see prior note), it is also true that the area referred to as "Lot M" throughout this report actually comprises multiple, separate lots. Originally, the entire "Lot M area" was created as a single lot, as part of the subdivision of a large parcel of land in the Newport

into a single legal lot. All of the lots underlie the proposed residential and associated development. Proposed development within the portion of Lot M to be consolidated includes hardscape, planters, and a portion of the pool. The lot consolidation is a routine requirement of the City when development crosses lot lines.

The City's certified Land Use Plan (LUP) maps indicate that Lot M, which is adjacent to the harbor, is designated Recreational and Environmental Open Space (REOS). Commission staff brought this to the attention of the applicant and questioned whether including Lot M in the lot consolidation and constructing residential and associated development on it was appropriate. The applicant responded by providing the history of the lots dating back to the 1920s. In addition, City staff provided information as to why they believe their land use map was altered such that the REOS designation was inadvertently and unintentionally shown as applying to Lot M.

In 1989 the Commission approved LUP amendment (LUPA) 1-89 to the City's certified LUP. LUPA 1-89 was a comprehensive update to the LUP, which was originally certified in 1982. As part of the comprehensive update, the amendment replaced the existing black and white LUP maps with new, larger scale, colored maps. The previously certified (prior to the 1989 LUP amendment) LUP maps do not identify Lot M as REOS. In the originally certified maps, there is no land use designation distinction between Lot M and the adjacent residential lots. City staff has indicated that the apparent change in land use designation for Lot M was a mistake caused by the City's new (in 1989) GIS system. Apparently, a small portion of Lot M that is technically a separate legal lot falls within Jetty View Park. The portion in Lot M that falls within the park was and is designated REOS. Perhaps because Lot M was not shown as the separate legal lots that it really is, in preparing the new colored maps, the GIS system did not differentiate between the portion of Lot M that was designated REOS because it was part of the park, and the remainder of Lot M, which was designated Low Density Residential. Instead, the GIS system simply showed the REOS designation as applying to the entire Lot M.

In addition to the background information provided by the City, the applicant has submitted a history of the subject lots dating back to the 1920s. As is explained in detail in footnote 2, the portion of Lot M that abuts residential lots (including the subject lots) was

---

Peninsula area in 1923. However, also as part of that subdivision, 24 separate lots were created adjacent to (and west of) Lot M, along Channel Road (numbered as Lots 2-25 in Block P of Tract 518 – see Exhibit E). As at least some of those lots within Block P were sold off, Lot M was divided up, and "that portion of Lot M" lying directly adjacent to any given numbered lot was sold off *with* the numbered lot. Consequently, the area of Lot M adjacent to Lot 24, for example, has been a separate lot since it was sold off in 1928. The City, however, continues to refer to the entire area that made up Lot M, as it was created in 1923, as "Lot M," and, for convenience, this report does the same.

segmented and joined to the adjacent residential lots in approximately 1923. The Lot M segments have been in separate, private ownership since at least that time.

The staff report prepared for LUP Amendment 1-89 acknowledges that the LUP maps are being changed from black and white to larger scale, color maps. LUPA 1-89 did include land use designation changes that are specified in the City's submittal and discussed in the Commission staff report. However, a land use designation change for Lot M is not identified or discussed.

Further, all the evidence appears to indicate that there is no history of public use along Lot M. Long time, existing development within the Lot M vicinity precludes public use. Such development includes bulkheads and private boat docks and ramps. Thus, there is no history of public use in the project vicinity.

Lot M was not identified in LUPA 1-89 as one of the sites subject to a land use designation change. In addition, prior to the 1989 LUP amendment, Lot M was certified as low density residential. Both of these facts support the argument that the change was made in error. As well, there is no history of public use at the site. For these reasons the Commission finds that the proposed lot consolidation of (among others), and residential development on, Lot M, is acceptable.

#### **F. Public Access & Recreation**

Section 30604(c) of the Coastal Act requires that every coastal development permit issued for any development between the nearest public road and the sea include a specific finding that the development is in conformity with the public access and public recreation policies of Chapter 3.

The subject site fronts on Newport Harbor and is between the first public road and the sea. The nearest public access in the project vicinity is located approximately 100 feet north of the subject site at a small public sandy beach. Public access is also available approximately 2 blocks south of the subject site at the wide sandy public beach that runs the length of the Balboa Peninsula, and at Jetty View Park. The proposed development, as conditioned, will not result in any significant adverse impacts to existing public access or recreation in the area. Therefore the Commission finds that the project is consistent with the public access and recreations policies of the Coastal Act.

#### **G. Deed Restriction**

To ensure that any prospective future owners of the property are made aware of the applicability of the conditions of this permit, the Commission imposes one additional condition requiring that the property owner record a deed restriction against the property, referencing all of the above Special Conditions of this permit and imposing them as covenants, conditions and restrictions on the use and enjoyment of the Property. Thus, as

conditioned, any prospective future owner will receive actual notice of the restrictions and/or obligations imposed on the use and enjoyment of the land including the risks of the development and/or hazards to which the site is subject, and the Commission's immunity from liability.

#### **H. Local Coastal Program**

Section 30604(a) of the Coastal Act provides for the issuance of coastal development permits directly by the Commission in regions where the local government having jurisdiction does not have a certified local coastal program. The permit may only be issued if the Commission finds that the proposed development will not prejudice the ability of the local government to prepare a Local Coastal Program which conforms with the Chapter 3 policies of the Coastal Act.

The Newport Beach Land Use Plan was effectively certified on May 19, 1982. The City currently has no certified Implementation Plan. Therefore, the Commission issues CDP's within the City based on the development's conformance with the Chapter 3 policies of the Coastal Act. The LUP policies may be used for guidance in evaluating a development's consistency with Chapter 3.

As conditioned the proposed development is consistent with Chapter 3 policies of the Coastal Act and with the LUP. Therefore, approval of the proposed development will not prejudice the City's ability to prepare a Local Coastal Program (Implementation Plan) for Newport Beach that is consistent with the Chapter 3 policies of the Coastal Act as required by Section 30604(a).

#### **I. California Environmental Quality Act**

Section 13096 of the Commission's regulations requires Commission approval of Coastal Development Permit applications to be supported by a finding showing the application, as conditioned by any conditions of approval, 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 as conditioned has been found consistent with the water quality, public access, and hazard policies of the Coastal Act. 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 can be found consistent with the requirements of the Coastal Act to conform to CEQA.

**Staff Note:**

**To review all the staff report exhibits please see the original staff report dated 7/17/03.**

# AEC Associates

Architecture Engineering Construction

2591 Richter Avenue, Suite 110, Irvine, CA 92606

E-mail : aec-ca@msn.com  
Telephone : 949/252 9188  
Fax : 949/252 9198

April 8, 2003

California Coastal Commission  
200 Oceangate, Suite 1000  
Long Beach, CA 9802-4302

Attention: Meg Vaughn

Subject: Seawall Project  
2210 Channel Road  
Newport Beach, California

RECEIVED

Dear Ms. Vaughn:

This report is prepared for submittal to you upon the request of Mr. Erick Anderson, the owner of the subject property. The purpose of the report is to address the concerns of the Coastal Commission. AEC Associates' investigations, findings, conclusions and design will be explained in detail in the sections below with titles relating to the Coastal Commission's various concerns.

## Existing Seawall

The existing seawall (bulkhead) is located at the east of the subject property as shown on Attachment I, Seawall Plan. It is about three feet six inches east of the property line, outside the property. The top elevation of the cap beam is at 8.2 feet M.S.L. The south end of the subject wall butts into a similar concrete seawall at the adjacent privately owned property. At the north, the seawall ends at a steel sheet pile seawall of the neighboring City owned property. The face of the steel sheet pile wall is located about 24 inches west of the existing wall at 2210 Channel Road.

AEC Associates investigated the structural safety of the existing wall. We visually inspected the wall, and prepared a detailed testing and inspection program. Following were our observations, evaluations and recommendations.

1. The height of the existing seawall is 13.5 feet and the pile penetration in to the soil is only 7.8 feet. The pile penetration to the wall height ratio is unusually low. Our calculations indicated that the safety factor (i.e. capacity/demand) for overturning, which is supposed to be over 1.75, is less than 1.0. The existing seawall is not safe as it is.
2. The wall thickness is only 9 inches and the concrete does not appear to be in good condition. When the 9 inch thickness of the existing wall is compared with the required thickness of 12 inches for the new wall, the existing walls inadequacy becomes apparent.

Because of the above we determine that the existing wall needs either upgrading or replacement.

Engineering Assessment

COASTAL COMMISSION

5-02-174

EXHIBIT #

6



# AEC Associates

Seawall Project  
2210 Channel Road  
Newport Beach, California  
Page Two of Three

## Alternatives to Replacement

Upon Mr. Anderson's request various alternatives to replacement of the existing wall were considered and found unworkable because of the factors listed below:

- Placement of new longer wall panels behind the existing was considered. However, after discussing the matter with the pile-driving contractor, it was concluded that such an operation could not be possible without damaging the existing wall.
- Placement of new reinforcement sheet piles, to support the embedded part of the existing piles, in the bay a few feet in front of the wall was considered, but found environmentally unacceptable and probably legally impossible.

## New Seawall Construction

The existing seawall will be completely removed and replaced with a new wall as shown on Attachments I and II. The new wall will be exactly at the same location of the existing wall, except for the north, which will extend 30'-0" into the adjacent City property. The north end of the wall is designed to align with the northerly seawall and will be offset approximately one foot towards the land side of the existing wall, as shown on Attachment I.

The new seawall will be constructed with 12 inch thick concrete sheet piles. It will have a 1'-10" wide 2'-6" high cap beam and will be supported at the top by tie-backs connected to a deadman. The top of the new cap beam will be at 8.20' M.S.L. (M.L.L.W 10.98') as the existing wall. All geometrical parameters of the new seawall, except for the depth and thickness of sheet piles, will be the same as for the existing seawall. Despite the proposed changes, the new seawall will be placed in the exact location or inland of the existing wall so not to encroach any further into the bay.

Since the new seawall is similar in design and will be placed in the exact location as the existing, no affect is anticipated on coastal process, including shoreline sand supply.

## New Seawall Design

The new seawall design is based on the below listed criteria:

- The water table was assumed to be at the lowest estimated tide level -5.23 M.S.L. (-2.5 M.L.L.W.)

G12

# AEC Associates

Seawall Project  
2210 Channel Road  
Newport Beach, California  
Page Three of Three

- It was assumed that, when the tide is at its lowest level, the water table behind the wall will be 3.00 ft above this level and there will be a 3.00 foot layer of saturated (not drained) soil above it.
- The final grade of the backfill behind the wall will be the same as the top of the cap beam. The load placed over the finish grade (surcharge load) was assumed to be 100 PSF.

The safety factor for the above design criteria was 1.75 for soil bearing pressure and overturning. An additional ultimate design load safety factor of 1.7 was used for the design of concrete and reinforcement.

If you have any question regarding this report, please call the undersigned.

Very truly yours.



Ergun (Ed) Kunter, S.E.

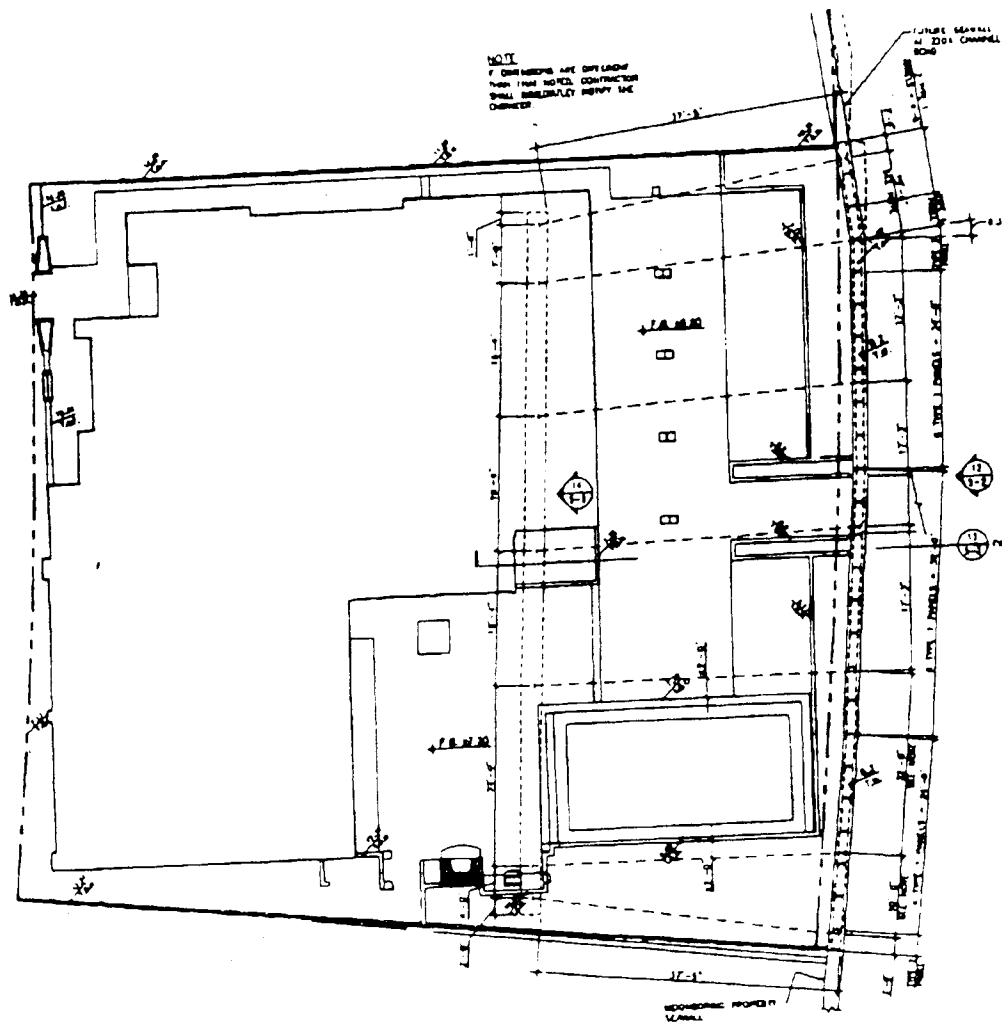
Enclosures

7134-02/L030408

63

Seawall Project  
2210 Channel Road  
Newport Beach, California  
Attachment I

Attachment I

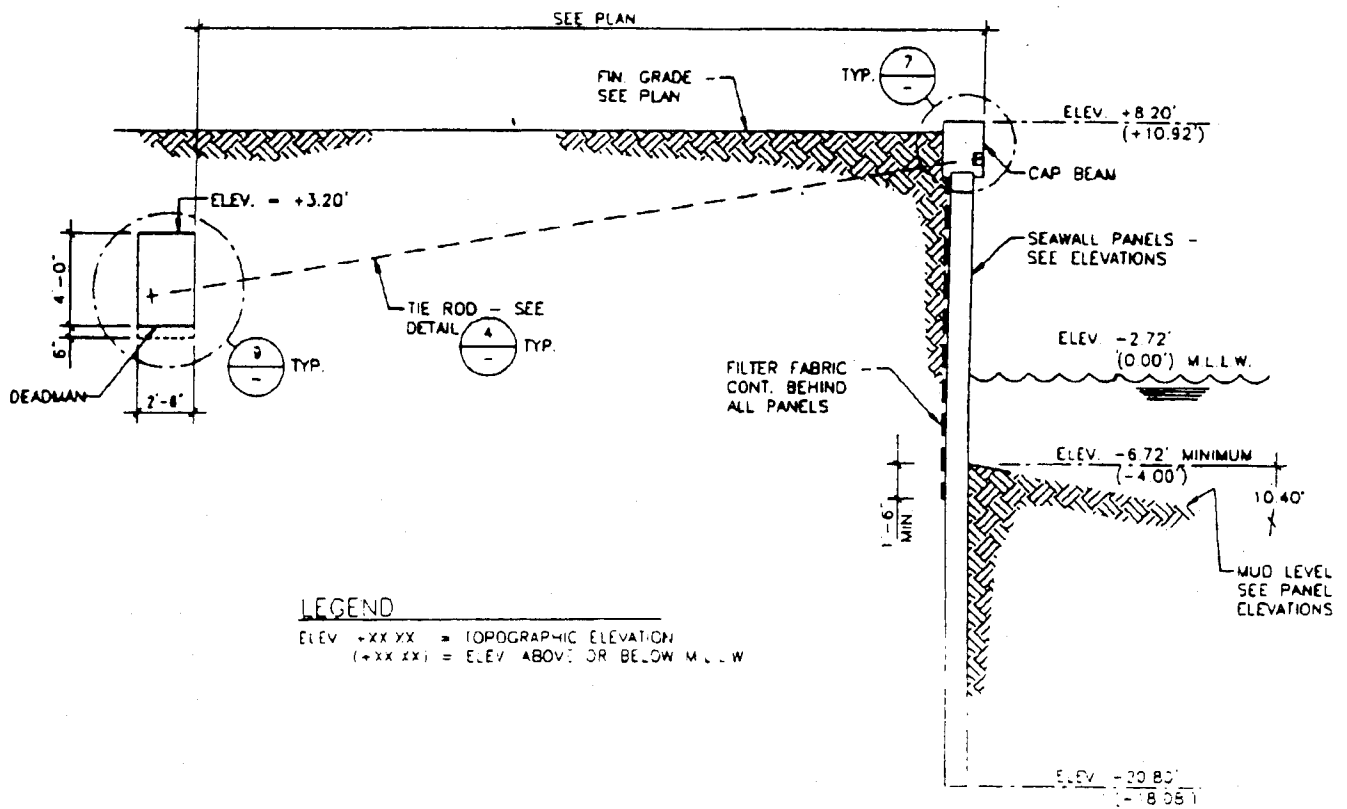


# SEAWALL PLAN

G4

# AEC Associates

Seawall Project  
2210 Channel Road  
Newport Beach, California  
Attachment II

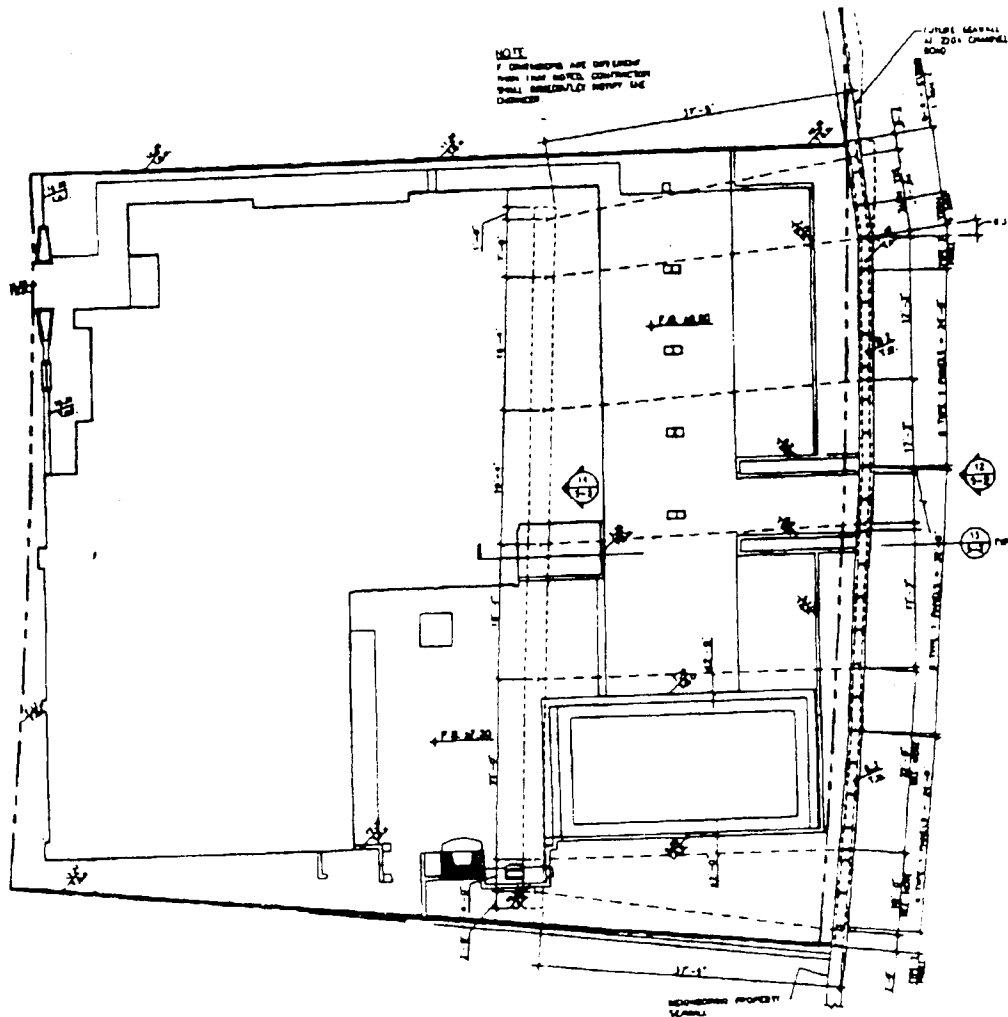


## SEAWALL SECTION NTS

G5

Seawall Project  
2210 Channel Road  
Newport Beach, California  
Attachment I

Attachment I



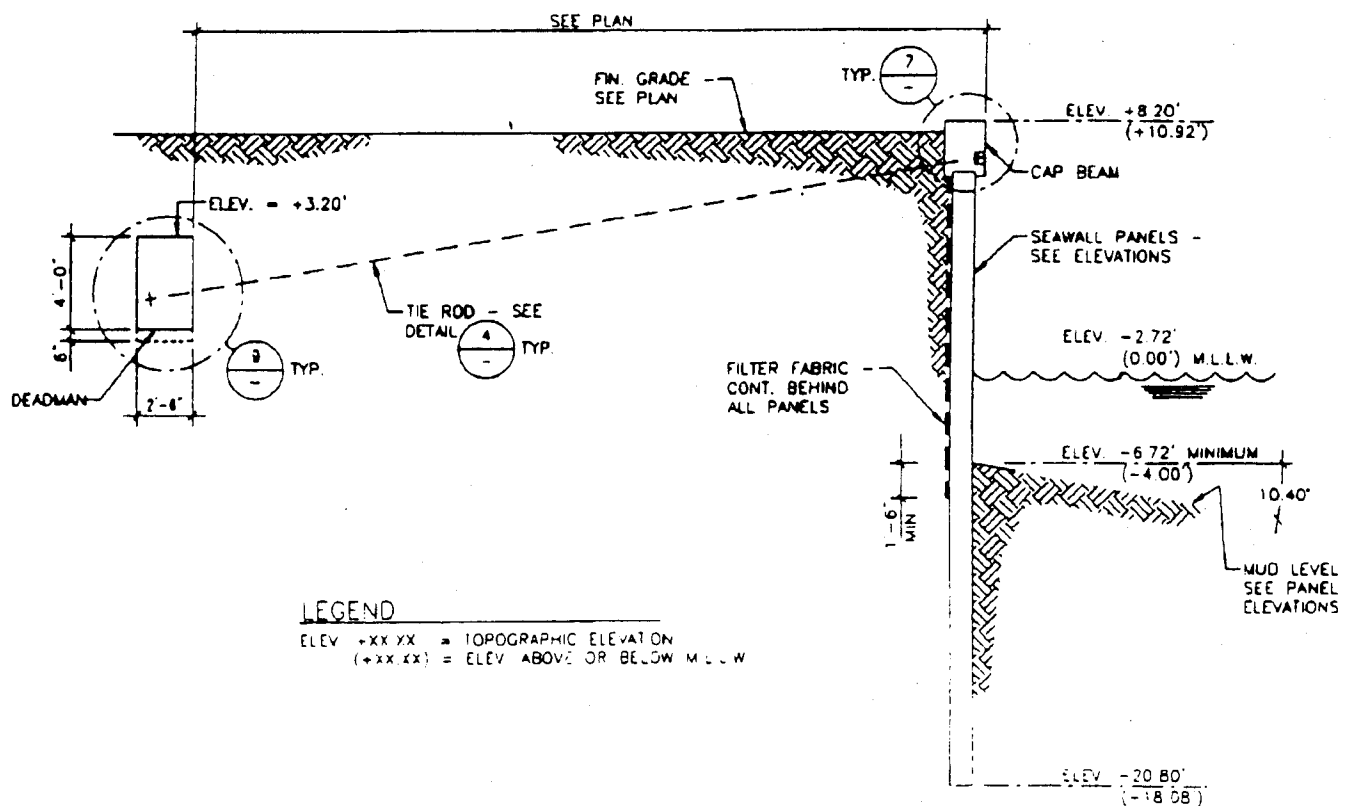
# SEAWALL PLAN

## NTS

G<sub>4</sub>

# AEC Associates

Seawall Project  
2210 Channel Road  
Newport Beach, California  
Attachment II



G7

# COASTAL COMMISSION

5-02-174

EXHIBIT # J

PAGE 1 OF 1

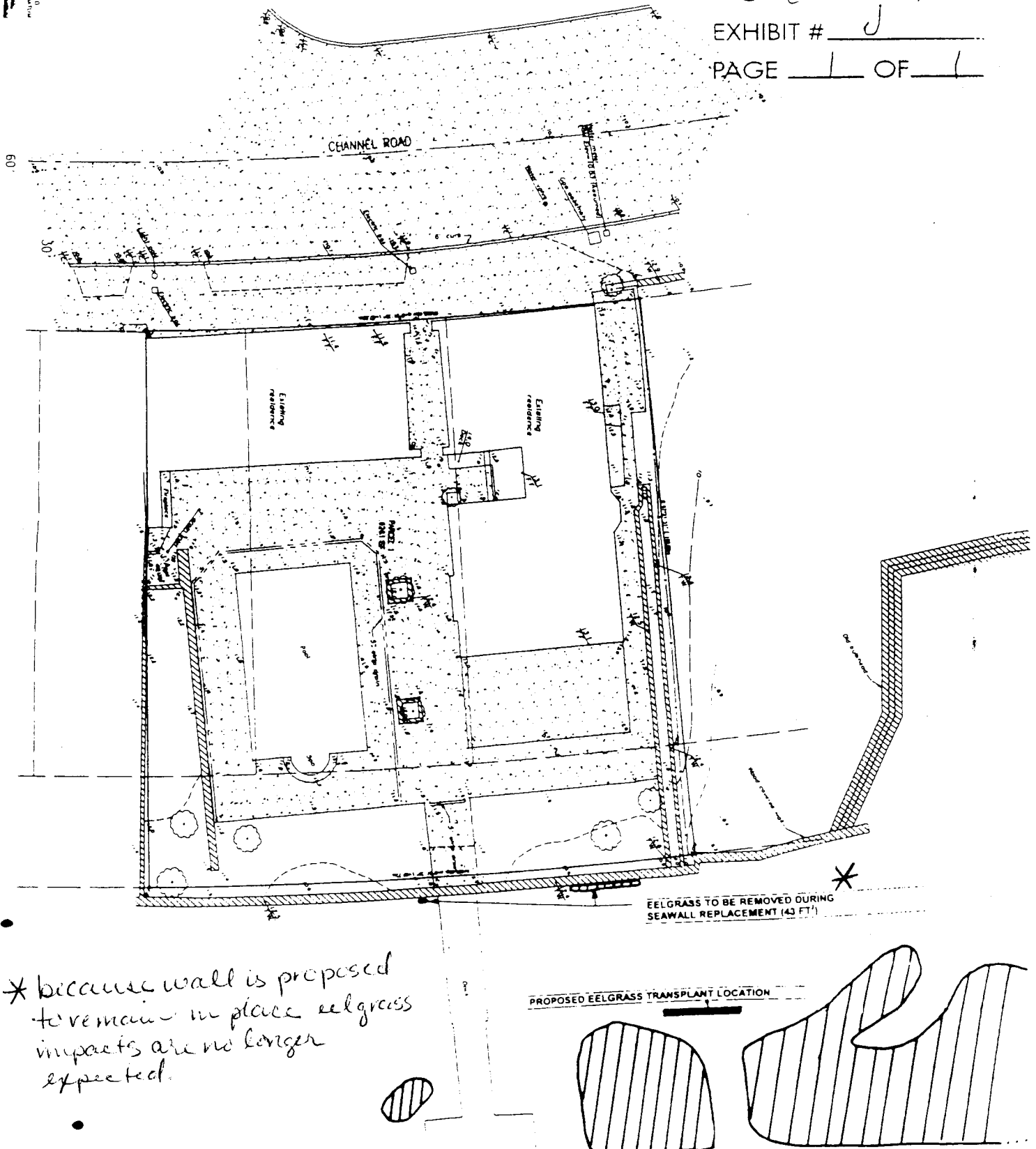


FIGURE 3.  
LOCATION OF EELGRASS BEDS  
SEAWALL REPLACEMENT PROJECT  
2210 CHANNEL DRIVE  
NEWPORT BEACH, CA

LEGEND

