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STAFF REPORT: REGULAR CALENDAR

APPLICATION NUMBER: 5-02-070

APPLICANT: **H.I. Property Trust, John Flynn TR**

AGENT: **Swift Slip Dock & Pier Builders**

PROJECT LOCATION: 34 Harbor Island, Newport Beach, Orange County

PROJECT DESCRIPTION: **Construction of a new boat dock comprised of a 3 foot by 28 foot gangway, 12 foot by 36 foot float, and two 14 inch diameter guide piles.**

LOCAL APPROVALS RECEIVED: **City of Newport Beach Harbor Resources Division Approval in Concept Harbor Permit No. 142-34.**

SUBSTANTIVE FILE DOCUMENTS: **City of Newport Beach certified Land Use Plan; Layout and Design Guidelines for Small Craft Berthing Facilities, California Department of Boating and Waterways; Southern California Eelgrass Mitigation Policy, adopted July 31, 1991 by the National Marine Fisheries Service, U.S. fish and Wildlife Service, and the California Department of Fish and Game.**

SUMMARY OF STAFF RECOMMENDATION:

The proposed project will result in unavoidable impacts to eelgrass. Staff is recommending approval of the proposed project subject to six special conditions which are necessary to assure that the unavoidable impacts are minimized, that appropriate mitigation occurs, and that marine resources and water quality are protected. The special conditions are necessary in order to find the proposed project consistent with Sections 30230, 30231, and 30233 of the Coastal Act.

Special Condition No. 1 requires an eelgrass survey to be completed within 120 days prior to commencement of construction and, if additional eelgrass is discovered within the project vicinity, that impacts be avoided and, if unavoidable, mitigated pursuant to the Southern California Eelgrass Mitigation Policy. Special Condition No. 2 requires that a pre-construction survey for *Caulerpa taxifolia* be done and if its presence is discovered, the applicant shall not proceed with the project until 1) the applicant provides evidence to the Executive Director that all *Caulerpa taxifolia* within the project and buffer areas have been eliminated or 2) the applicant has revised the project to avoid any contact with *Caulerpa taxifolia.* Special Condition No. 3 requires that the applicant submit a revised mitigation plan that indicates that the monitoring period for the eelgrass mitigation will be a minimum of 84 months long. Special condition No. 4 requires that the applicant revise the project to assure that it is the least environmentally damaging alternative. Special Condition No. 5 requires that the applicant dispose of all demolition and construction debris at an appropriate location. And Special Condition No. 6 requires the applicant to follow Best Management Practices to ensure the continued protection of water quality and marine resources.

STAFF RECOMMENDATION:

I. MOTION, STAFF RECOMMENDATION AND RESOLUTION FOR 5-02-070:

Staff recommends that the Commission make the following motion and adopt the following resolution:

MOTION: ***I move that the Commission approve Coastal Development Permit #5-02-070 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 permit, subject to the conditions below, for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the provisions of Chapter 3 of the California 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

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

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

III. SPECIAL CONDITIONS

1. Pre-Construction Eelgrass Survey

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 applicants 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 additional eelgrass beyond that identified in the Marine Biological Resources Impact Assessment prepared by Coastal Resources Management, dated August 28, 2002 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. 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.

2. 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.

3. **Revised Eelgrass Mitigation Plan**

A. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit, for review and approval of the Executive Director, a revised eelgrass mitigation plan which, at a minimum, identifies the location of the eelgrass transplantation, provides written approval of the landowner to conduct the mitigation project, assures that eelgrass will be replaced at a 1.2:1 ratio, and requires monitoring of the eelgrass transplantation for a minimum of 84 months and until the eelgrass revegetation is demonstrated to meet the success criteria defined in the "Southern California Eelgrass Mitigation Policy" Revision 8, adopted by the National Marine Fisheries Service. The revised eelgrass mitigation plan shall be 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 and National Marine Fisheries Service.

If, at the end of the required eighty-four month monitoring period, the required eelgrass coverage has not occurred, the applicant shall submit a revised mitigation plan to assure that the required eelgrass coverage is attained. Submittal of the revised mitigation plan shall require an amendment to this permit or a new coastal development permit unless the Executive Director determines that no amendment or new permit is required.

B. The permittee shall undertake development in accordance with the approved final mitigation plan and any revised mitigation plan approved in an amendment to this permit or a new coastal development permit pursuant to paragraph A. Any proposed changes to the approved final mitigation plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

4. **Revised Project Design**

A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for review and approval of the Executive Director, revised plans indicating that the float portion of the proposed boat dock is:

1. reduced in width to the minimum necessary, as certified by a licensed civil engineer, to adequately support docking of a vessel;
2. constructed of open, grated material to maximize penetration of sunlight to the water below;
3. aligned in a North-South position to minimize shading.

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.

5. **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 any 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 method 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.

6. Best Management Practices Program

By acceptance of this permit the applicant agrees that the long-term water-borne berthing of boat(s) in the approved dock and/or boat slip will be managed in a manner that protects water quality pursuant to the implementation of the following BMPs.

(a) Boat Cleaning and Maintenance Measures:

1. In-water top-side and bottom-side boat cleaning shall minimize the discharge of soaps, paints, and debris.
2. In-the-water hull scraping or any process that occurs under water that results in the removal of paint from boat hulls shall be prohibited. Only detergents and cleaning components that are designated by the manufacturer as phosphate-free and biodegradable shall be used, and the amounts used minimized.
3. The applicant shall minimize the use of detergents and boat cleaning and maintenance products containing ammonia, sodium hypochlorite, chlorinated solvents, petroleum distillates or lye.

(b) Solid and Liquid Waste Management Measures:

1. All trash, recyclables, and hazardous wastes or potential water contaminants, including old gasoline or gasoline with water, absorbent materials, oily rags, lead acid batteries, anti-freeze, waste diesel, kerosene and mineral spirits shall be disposed of in a proper manner and shall not at any time be disposed of in the water or gutter.

(c) Petroleum Control Management Measures:

1. Oil absorbent materials shall be examined at least once a year and replaced as necessary. The applicant shall recycle the materials, if possible, or dispose of them in accordance with hazardous waste disposal regulations. The boaters shall regularly inspect and maintain engines, seals, gaskets, lines and hoses in order to prevent oil and fuel spills. Boaters shall also use preventive engine maintenance, oil absorbents, bilge pump-out services, or steam cleaning services as much as possible to clean oily bilge areas and shall not use detergents while cleaning. The use of soaps that can be discharged by bilge pumps is prohibited.

IV. FINDINGS AND DECLARATIONS:

The Commission hereby finds and declares:

A. Project Description and Location

The applicant proposes to construct a new boat dock comprised of a 3 foot by 28 foot gangway, 12 foot by 36 foot float, and two 14 inch diameter guide piles. No boat dock currently exists at the site. The proposed dock is associated with an existing single family residence on Harbor Island in Newport Harbor. An eelgrass survey prepared for the site indicates that eelgrass will be adversely impacted by the proposed project.

The subject site is located on Harbor Island in Newport Harbor. Harbor Island, like the majority of islands in Newport Harbor, is surrounded by private recreational boat docks associated with residential development. The proposed boat dock will be similar in function to other docks associated with residential development in the immediate vicinity. The boat dock will be used solely for boating recreation purposes.

Harbor Island is a private residential island with no public access. Public access in the project vicinity exists along the public boardwalk that rings Balboa Island, approximately one half mile to the south east of the subject site. Public access also exists along the ocean fronting sandy beach, approximately one mile south of the subject site (Exhibit A). The proposed project has received approval in concept from the City of Newport Beach Harbor Resources Division (Harbor Permit No. 142-34). City review of the site indicates that eelgrass is present in the project area. The applicant has applied for approval of the proposed project from the U.S. Army Corps of Engineers. The project has received approval from the California Regional Water Quality Control Board (RWQCB). The RWQCB has determined that the proposed project will not adversely impact water quality if standard construction methods and materials are used and if no waste is discharged from the proposed project.

B. Fill of Coastal Waters

The proposed project will involve the placement of two 14-inch diameter concrete guide piles in open coastal waters. These dock float guide piles constitute fill of open coastal waters. Under Section 30233 of the Coastal Act, fill of open coastal waters shall be allowed only when specific criteria are met, including (a) the project must fall within one of the use categories specified; (b) the proposed project must be the least environmentally damaging feasible alternative; and (c) feasible mitigation measures to minimize adverse environmental effects must be provided. Section 30233 of the Coastal Act states, in part:

> *(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:*
>
> *(4) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities*

a. Allowable Use

Section 30233(a)(4) of the Coastal Act allows fill of open coastal waters, such as Newport Harbor, for recreational boating purposes. The proposed project, a boat dock, constitutes a recreational boating facility. The boat dock is proposed to be used solely for boating related purposes. Thus, the project is an allowable use under Section 30233(a)(4).

b. Least Environmentally Damaging Alternative

Under Section 30233, the proposed project must be the least environmentally damaging alternative.

The proposed project will result in construction of a new boat dock. The proposed dock will consist of a gangway, 12 foot by 36 foot float, and two 14 inch diameter guide piles. In order to anchor the boat dock securely, the two proposed piles are necessary to withstand the load and adequately support the boating use. Thus the proposed project employs the minimum number and size of piles necessary to adequately support and secure the proposed boat dock project. Thereby minimizing the amount of fill needed to support the proposed allowable use.

However, as proposed, the project design is not the least environmentally damaging alternative. Due to the extensive presence of eelgrass at the subject site, the proposed construction of a new boat dock will result in unavoidable losses to eelgrass, as described previously. However, the design of the project could be modified to minimize such impacts, as required by Section 30233. The amount of available sunlight is one of the most important factors affecting the survival, growth, and depth distribution of eelgrass. Feasible alternatives to the proposed project's design exist which would result in an increase in the amount of sunlight able to penetrate the surface of the water than the amount which would be allowed under the current proposal.

As proposed, the float portion of the dock will be constructed of solid, opaque material, preventing any penetration of sunlight to the waters below. Eelgrass is dependant on adequate sunlight. However, a feasible alternative to the proposed float material would be to construct the float using open, grated material. Open, grated material would allow sunlight to penetrate the surface of the float, thus increasing the amount of sunlight on the water beneath the float.

Further, the width of the proposed float is 12 feet. The Layout and Design Guidelines for Small Craft Berthing Facilities guidelines, which was prepared by the California Department of Boating and Waterways, recommend a minimum width for finger floats between 36 and 60 feet long of 4 feet. The proposed project's width is three times the minimum recommended. In addition, the length of the proposed float is 36 feet, the short end of the range described in the guidelines. The Department of Boating and Waterways recommends a minimum width of 3 feet for floats that are 35 feet long. Based on these guidelines, reducing the width of the proposed float is a feasible alternative. Narrowing the float width would reduce the area of the shadow created by the float. Thus, this alternative would increase the area where sunlight could shine unobstructed into the water, maximizing the potential for eelgrass to survive.

Finally, aligning the boat dock in a north–south configuration would also minimize the amount of shading caused by the proposed new boat dock. As proposed the dock is aligned in a north-south configuration. However, to emphasize the importance of maintaining this alignment and to assure that this alignment remains, a special condition is imposed which requires the north-south alignment.

In order to assure that the proposed boat dock project is the least environmentally damaging alternative, as a condition of approval, the applicant shall revise the proposed project such that the float is constructed of open, grated material, is narrowed to the maximum extent feasible, and aligned in a north-south configuration.

c. Adequate Mitigation

The project also must provide feasible mitigation measures to minimize adverse environmental effects. As proposed, the eelgrass that would be disturbed by the proposed project is proposed to be mitigated through the eelgrass mitigation plan described in the Marine Biological Resources Impact Assessment. The applicant's mitigation plan proposes to document and transplant, at a ratio of 1.2:1, any eelgrass in the project vicinity that is lost as a result of the proposed development. The proposed mitigation plan includes transplanting 84.6 square meters (910.2 square feet) of eelgrass vegetation within Newport Bay. As proposed the mitigation transplantation plan follows the Southern California Eelgrass Mitigation Policy Guidelines (approved by the National Marine Fisheries Service) with regard to the replacement ratio. However, as described in greater detail below, the mitigation monitoring must be extended beyond the 60 months proposed. The proposed mitigation plan identifies the revegetation site as either on-site or at a location in Upper Newport Bay. The location of the revegetation site must be identified before construction may occur. In addition, if the revegetation is to occur off site written permission from the landowner must be submitted.

As a condition of approval, the applicant is required to extend the monitoring period a minimum of 24 months beyond the proposed 60 month period. Monitoring will be required until the full 84.6 square meters of revegetation is demonstrated to be definitively established. Further, as a condition of approval the applicant is required to identify the location of the revegetation mitigation site and submit permission from the landowner to undertake the development. Only as conditioned is the proposed project the least environmentally damaging, feasible alternative, as required by Section 30233.

The proposed project will result in the fill of open coastal waters for a boating facility, which is an allowable use under Section 30233 of the Coastal Act. In addition, the proposed project, as conditioned, is the least environmentally damaging feasible alternative, and, as conditioned, provides adequate mitigation measures. Therefore, the Commission finds the proposed project is consistent with Section 30233 of the Coastal Act.

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. Eelgrass and other Sensitive Species Impacts

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 proposed project would impact eelgrass through the placement of two 14-inch diameter guide piles and shading from the 12 foot by 36 foot float. Also, construction activity, including barge anchoring, vessel propeller wash, and propeller contact with the harbor bottom could cause scarring to the eelgrass beds.

The applicant has submitted a Marine Biological Resources Impact Assessment (Assessment), prepared by Coastal Resources Management, dated August 28, 2002, which includes an eelgrass survey. The eelgrass survey identifies the presence of 676.3 square meters (7,276 square feet) of eelgrass in the project vicinity (see exhibit C). This figure includes a small area of the eelgrass bed that extends beyond the extended property lines. The Assessment found that the proposed project would result in the loss of 70.5 square meters (758.6 square feet) of eelgrass vegetation. This figure includes the eelgrass displacement due to emplacement of the two new 14 inch diameter piles, as well as loss expected due to shading created by the float. No loss of eelgrass is anticipated in the area of the gangway, as no eelgrass currently exists within that area.

The applicant has proposed an eelgrass mitigation plan that follows the guidelines contained in the Southern California Eelgrass Mitigation Policy (SCEMP) Guidelines by the National Marine Fisheries Service. Under the guidelines, for every one square meter of disturbance, 1.2 square meters of new suitable habitat vegetated with eelgrass must be created. In this case, the applicant has proposed to transplant 84.6 square meters (910 square feet) of eelgrass. The Assessment indicates that the first choice location for the transplantation is at the subject site. However, that site may not be feasible because it is possible that onsite areas that could support eelgrass would already have eelgrass coverage. Thus it could be that unvegetated on-site areas are not vegetated because they lack the qualities necessary to support eelgrass growth (such as adequate depth etc.). In the event that the onsite alternative proves unviable, the Assessment identifies a site located along the DeAnza/Bayside Peninsula in Upper Newport Bay, in the general vicinity of where patches of eelgrass are beginning to grow naturally.

Finally, the proposed mitigation provides for a series of seven monitoring surveys. The surveys will be conducted during the active growth periods of eelgrass (March-October) at intervals of 3, 6, 12, 24, 36, 48, and 60 months (Eelgrass Survey page 4). However, even if eelgrass is present during each of these surveys, the continued success of the proposed eelgrass transplantation beyond 60 months is not assured. In a letter dated October 21, 2002 regarding the proposed project (exhibit D), the California Department of Fish and Game (CDFG) states:

> *"It is likely that the current un-vegetated areas in Lower and Upper Newport Bay are naturally unvegetated due to persistent environmental constraints. Thus the continued success of an eelgrass transplant in these areas is questionable. In order to evaluate transplant success, the Department recommends the applicant continue to monitor and survey the transplant sites for an additional 24 months beyond the 60-month period stated in the SCEMP. It should be noted, as documented in the SCEMP, that supplementary transplants will need to be conducted if project criteria success is not met, and once supplementary transplants have been completed, the monitoring process starts over. It is feasible that for questionable transplant sites, like those proposed, monitoring could continue for 10 or more years."*

An extended monitoring period would assure that the eelgrass transplantation, necessary as mitigation to off set the loss of eelgrass due to the proposed project, would in fact have an opportunity to establish so completely that it could be assumed to continue to exist beyond the conclusion of the monitoring in perpetuity. The extended monitoring period would allow transplantation failure to be identified and corrected. If transplantation failure is identified, corrective measures such as replanting the same site or replanting a new, more viable location could be implemented.

Regarding monitoring, the SCEMP states: "*Additional monitoring beyond the 60 month period may be required in those instances where stability of the proposed transplant site is questionable or where other factors may influence the long-term success of transplant.*" In this case the Department of Fish and Game has determined that an additional monitoring period is appropriate to ensure that eelgrass lost due to the proposed project is permanently replaced. Although, the SCEMP anticipates extended monitoring periods may be required in certain cases, because monitoring extensions would depend on the specifics of each case, it does not include the specific details to be incorporated into the extension. In this case, CDFG has provided project specific comments indicating that a minimum 24 month period is appropriate in the case of the proposed project. It should be clarified to the applicant that such an extension does apply in the proposed project. In addition, any revegetation that is required due to the failure of a previous transplantation effort to permanently establish will need to begin again with monitoring at the 3, 6, 12, and 24 month periods required in the SCEMP from the dates of each revegetation project.

As proposed, the mitigation plan does not include the extended monitoring period necessary to assure the post-monitoring success of the eelgrass transplantation. As indicated in the letter from CDFG and as described in the SCEMP, monitoring should continue until success of the transplantation has been verified. Therefore, as a condition of approval, the applicant shall revise the proposed mitigation to include the extended monitoring period at least 24 months beyond the five year monitoring period proposed and until the transplantation is successful as described in the SCEMP. Therefore, only as conditioned can the Commission find that the proposed project is consistent with Coastal Act Sections 30230 and 30231 which require the protection of biological productivity, public recreation, and marine resources.

The eelgrass survey in the proposed mitigation plan was conducted on July 3, 2002. Due to the ephemeral nature of eelgrass locations, the SCEMP recommends that eelgrass surveys be conducted not more than one hundred twenty (120) days prior to the start of a project that would impact eelgrass. The 120th day from July 3, 2002 (October 31, 2002) has already passed. Thus, construction for this project will not occur before the 120-day period expires. Therefore, Special Condition No. 1 requires a pre-construction eelgrass survey to be completed by a professionally licensed biologist. 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 areas of the dock configuration. This condition is imposed upon the applicant to ensure that the site of the eelgrass bed located within the project site has not changed during the active growth phase of eelgrass. 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. The pre-construction survey will also identify any eelgrass beds not previously identified, which may be impacted and which must be transplanted prior to the commencement of development. Such transplantation shall occur at a 1.2:1 ratio.

2. 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[1].

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[1] 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

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

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 if 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 July 3, 2002. 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.

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. 2. Special Condition No. 2 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.

3. Water Quality

The proposed project is the construction of a new boat dock comprised of a 3 foot by 28 foot gangway, 12 foot by 36 foot float, and two 14 inch diameter guide piles, in Newport Harbor (see exhibit B).

The proposed project is located in and over the coastal waters of Newport Harbor (Lower Newport Bay). Newport Bay is on the federal Clean Water Act 303(d) list of "impaired" water bodies. The designation as "impaired" means that water quality within the harbor does not meet

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

State and Federal water quality standards designed to meet the 1972 Federal Clean Water Act goal established for this waterbody. 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. The standard of review for development proposed in coastal waters is the Chapter 3 policies of the Coastal Act, including Sections 30230 and 30231 of the Coastal Act, which require the protection of biological productivity, public recreation, and marine resources.

a. Construction Impacts

The proposed development will occur over and in the water. Construction of any kind adjacent to or in coastal waters has the potential to impact marine resources. The Bay provides an opportunity for water oriented recreational activities and also serves as a home for marine habitat. Because of the coastal recreational activities and the sensitivity of the Bay habitat, potential water quality issues must be examined as part of the review of this project.

Storage or placement of construction materials, debris, or waste in a location subject to erosion and dispersion or which may be discharged into coastal water via rain, surf, or wind would result in adverse impacts upon the marine environment that would reduce the biological productivity of coastal waters. For instance, construction debris entering coastal waters may cover and displace soft bottom habitat. In addition, the use of machinery in coastal waters not designed for such use may result in the release of lubricants or oils that are toxic to marine life. Sediment discharged into coastal waters may cause turbidity, which can shade and reduce the productivity of foraging avian and marine species ability to see food in the water column. In order to avoid adverse construction-related impacts upon marine resources, Special Condition No. 5 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.

Special Condition No. 5 requires that the applicant dispose of all demolition and construction debris at an appropriate location. This condition requires the applicant to incorporate silt curtains and/or floating booms when necessary to control turbidity and debris discharge. Divers shall remove any non-floatable debris not contained in such structures that sink to the ocean bottom as soon as possible.

b. Maintenance

The proposed dock project will allow for the long term berthing of boat(s) by the homeowner. Some maintenance activities if not properly regulated could cause adverse impacts to the marine environment. Certain maintenance activities like cleaning and scraping of boats, improper discharges of contaminated bilge water and sewage waste, and the use of caustic detergents and solvents, among other things, are major contributors to the degradation of water quality within boating facilities. As mentioned above, Lower Newport Bay (Newport Harbor) provides a home for marine habitat and also provides opportunities for recreational activities. The Bay ultimately drains into the Pacific Ocean.

To minimize the potential that maintenance activities would adversely affect water quality, the Commission imposes Special Condition No. 6 which requires the applicant to follow Best Management Practices to ensure the continued protection of water quality and marine resources. Such practices that the applicant shall follow include proper boat cleaning and maintenance,

management of solid and liquid waste, and management of petroleum products, all of which are associated with the long term berthing of the boat(s) (more thoroughly explained in Special Condition No. 6 of this permit).

Therefore, only as conditioned to minimize construction related impacts and to follow the Best Management Practices listed in Special Condition Nos. 5 and 6 does the Commission find the proposed project consistent with Section 30230 and 30231 of the California Coastal Act.

D. Public Access and Recreation

Section 30210 of the Coastal Act states:

> *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 30212 of the Coastal Act states, in relevant part:

> *(a) Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where:*
> *(2) adequate access exists nearby, or,*

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 is located on the private community of Harbor Island in the City of Newport Beach. Harbor Island is located between the first public road (Harbor Island Drive) and Newport Harbor. Public access in the project vicinity exists along the public boardwalk that rings Balboa Island, approximately one half mile to the southeast of the subject site. Public access also exists along the ocean fronting sandy beach, approximately one mile south of the subject site (Exhibit A).

Public access through this community does not currently exist. The proposed development, construction of a new boat dock, will not affect the existing public access conditions. It is the private nature of the community, not this project, that impedes public access. The proposed development, as conditioned, will not result in any new 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 recreation policies of the Coastal Act.

E. Local Coastal Program

Section 30600(c) 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. Pursuant to Section 30604(a) 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. The City's LUP states that the City seeks to insure the highest quality of water in the bay and along their beaches. In addition, the certified LUP contains policies for the protection of marine resources and habitat. As conditioned, the proposed project is not expected to create additional adverse impacts to marine resources, marine habitat, water quality and the marine environment and therefore attempts to insure the highest quality of water as well as protection of marine habitat in the Bay and along the beaches.

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).

F. California Environmental Quality Act (CEQA)

Section 13096 of the California Code of Regulations requires Commission approval of Coastal Development Permit application 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 that the activity may have on the environment. Potential impacts on marine habitat, eelgrass, and water quality have been identified and mitigated for.

The proposed project, as conditioned, has been found consistent with the Chapter 3 policies of the Coastal Act. All adverse impacts have been minimized and there are no feasible alternatives or additional feasible mitigation measures available which would substantially lessen any significant adverse impact that 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.

- Lifeguard Tower
- Lifeguard Headquarters
- Public Dock
- O.C. Sheriff Harbor Patrol
- Police Headquarters
- Fire Stations
- Emergency Medical Care
- Public Parking Lots
- City Boundary

Operations Division
Business 644-3047
Fax 673-3056

Fire Prevention Division
Business 644-3106
Fax 644-3120

Support Services Division
Business 644-3104
Fax 644-3378

Marine Environmental Division
Business 644-3044
Fax 673-3056

Tidepools
644-3038

Junior Lifeguards
675-8420

Surf & Weather
673-3371

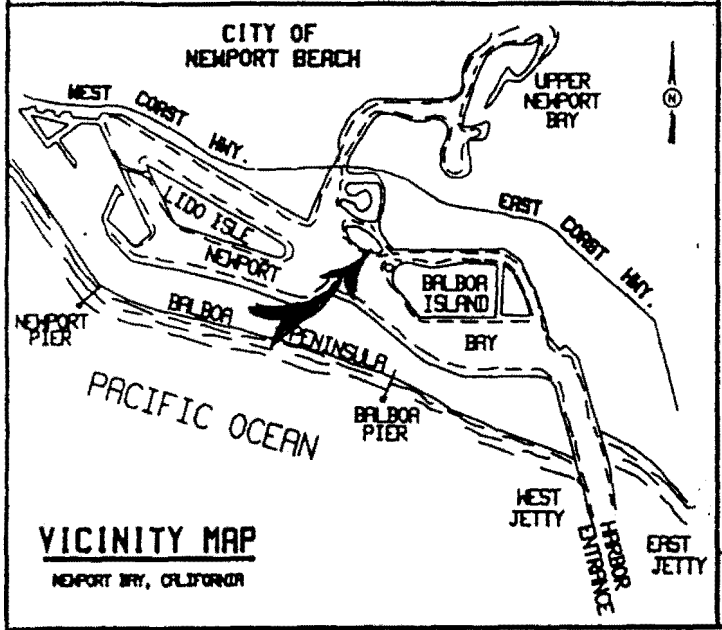
Emergencies Dial 911

Visitor Information
1-800-94-COAST
949-722-1611
Fax: 949-722-1612

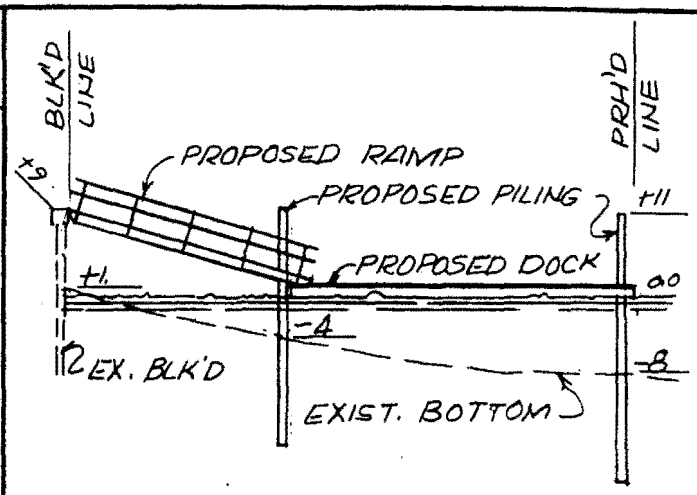
City of Newport Beach
Fire and Marine Department

Scale 1" = 2000'

CITY OF NEWPORT BEACH



VICINITY MAP
NEWPORT BAY, CALIFORNIA



PROFILE 1" = 20'

SOUNDINGS ARE EXPRESSED IN FEET AND DENOTE ELEVATIONS BASED ON MEAN LOWER LOW WATER.

EEL GRASS INSPECTION

☐ NO EEL GRASS WITHIN 15' OF PROJECT

☒ EEL GRASS IN THE PROJECT AREA

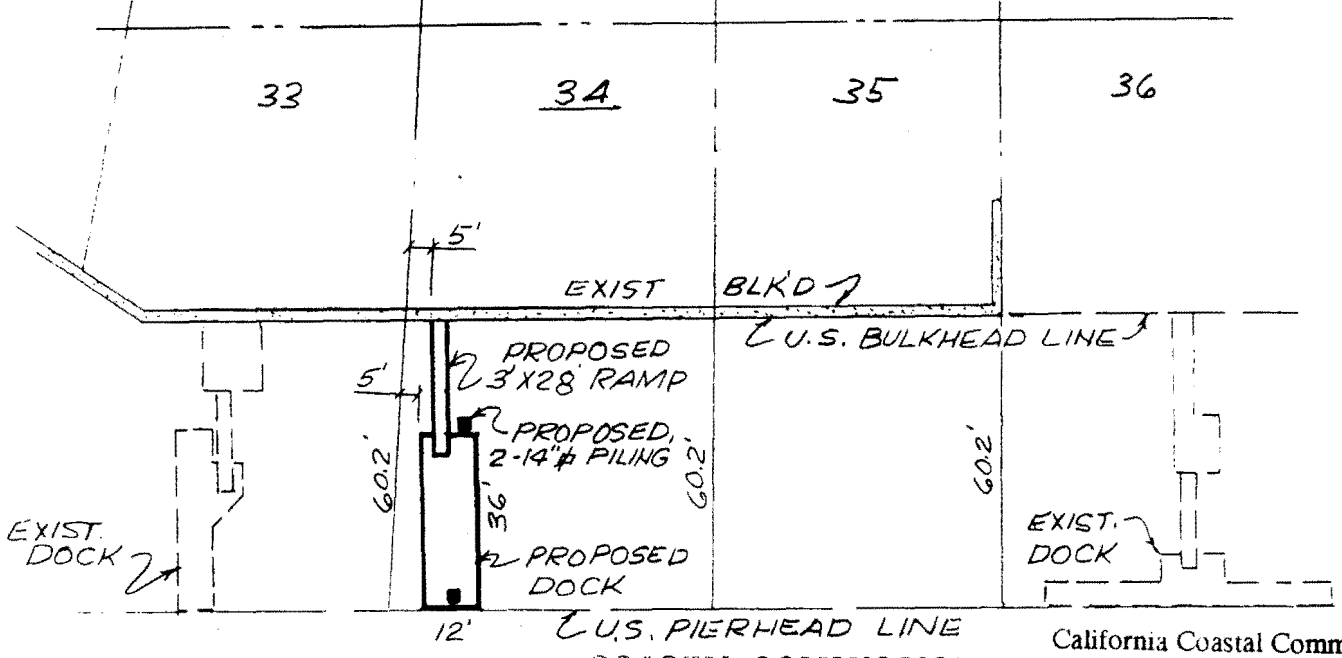
SIGNATURE

142-34 PERMIT #

2-22-02 DATE

RECEIVED
South Coast Region
MAR 8 2002
CALIFORNIA COASTAL COMMISSION

TRACT 802
HARBOR ISLAND



COASTAL COMMISSION
5-02-070
EXHIBIT # B
PAGE 1 OF 1

California Coastal Commission
South Coast District Office
APPROVED
Permit No.
By:
EFFECTIVE Date:

2-22-02
HARBOR RESOURCES DIV.
CITY OF NEWPORT BEACH

PLAN VIEW 1" = 40'

APPLICANT'S NAME H.I. PROPERTY L.L.P.	JOB ADDRESS 34 HARBOR ISLAND	DATE 11-29-01

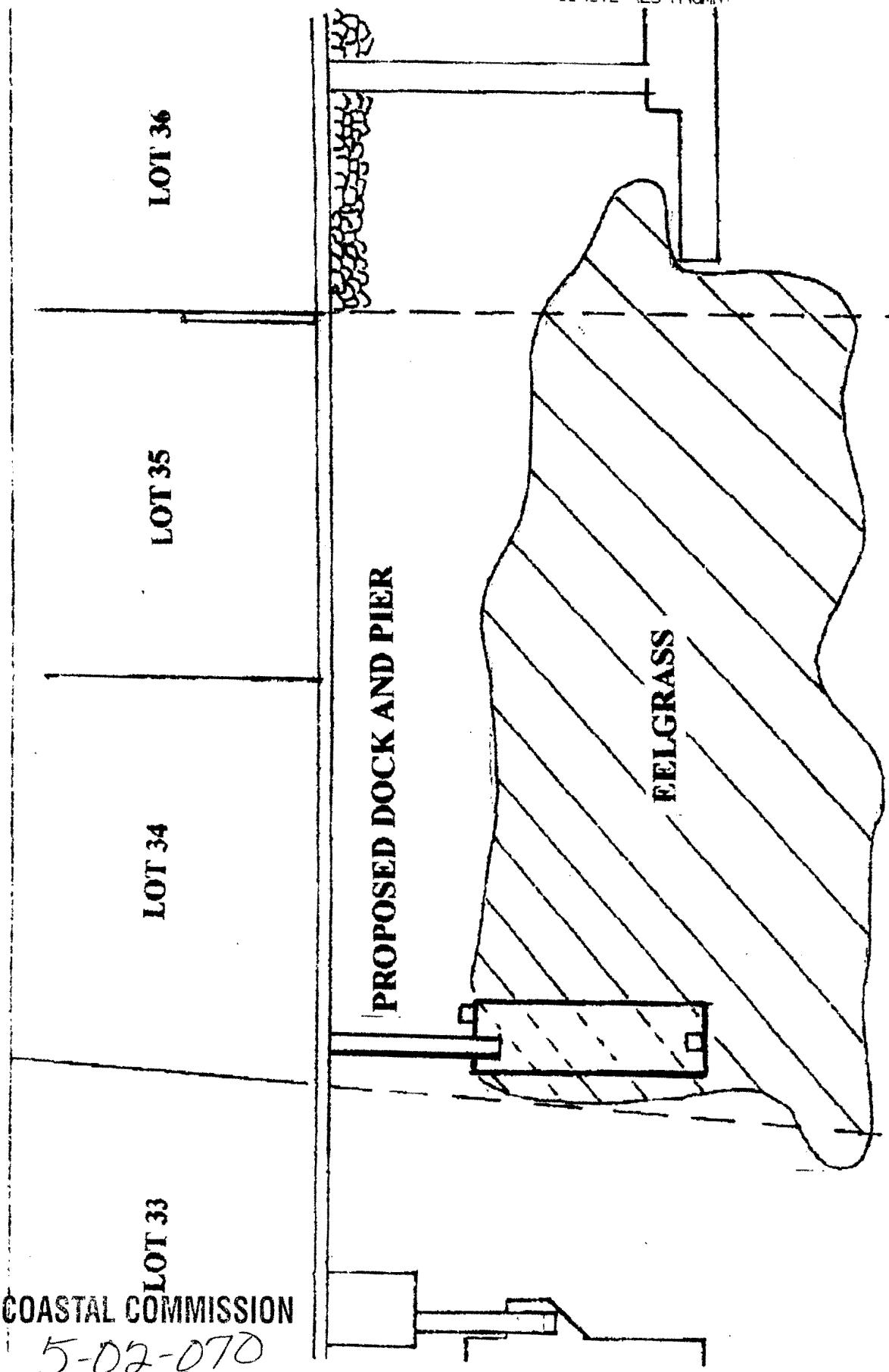


FIGURE 2. EELGRASS (*ZOSTERA MARINA*) HABITAT MAP (ANC) LOCATION OF PROPOSED DOCK AND PIER AT 3016 AND 3014 HARBOR ISLAND, NEWPORT BEACH, CA

SCALE: 1 INCH = 20 FT

COASTAL COMMISSION
5-02-070
EXHIBIT # C
PAGE 1 OF 1

State of California - The Resources Agency
GRAY DAVIS, *Governor*

DEPARTMENT OF FISH AND GAME
http://www.dfg.ca.gov
Marine Region
20 Lower Ragsdale Drive, Suite #100
Monterey, CA 93940
(831) 649-2870

October 21, 2002

Colonel Richard G. Thompson
U.S. Army Corps of Engineers, Los Angeles District
Regulatory Branch
P.O. Box 2711
Los Angeles CA 90053-2325

Attention: Ms. Cori Farrar

Dear Colonel Thompson:

Department of Fish and Game (Department) staff have reviewed the U.S. Army Corps of Engineers (Corps) Letter of Permission (LOP) No. 2002-00663-CJF (comment period extended to October 31, 2002) for a new dock construction project located bayward of 34 Harbor Island, Newport Beach, Orange County, California (applicant H.I. Property Trust, L. L. P. John Flynn). The proposed project would install a new 432-square-foot (ft^2) dock platform and an 84-ft^2 ramp, including the installation of two 14-inch diameter piles. The purpose of the project is to accommodate boat moorage. The project site was surveyed for the presence of eelgrass (*Zostera marina*) habitat and results of the survey show a 7,276-ft^2 bed exists within the project area. A survey by Coastal Resources Management states the project is anticipated to impact approximately 759 ft^2 of eelgrass habitat from pile driving and permanent shading by the structure.

The applicant has proposed an eelgrass mitigation plan, in accordance with the National Marine Fisheries Service's (NOAA Fisheries) Southern California Eelgrass Mitigation Policy (SCEMP). The plan would restore 910.2 ft^2 of eelgrass onsite in currently un-vegetated areas suitable for eelgrass transplants. If no onsite areas are available, the applicant plans to transplant offsite in Upper Newport Bay in the vicinity of the DeAnza/Bayside Peninsula.

Eelgrass habitat is among the richest and most productive of all biotic communities and is recognized as a valuable type of marine habitat. Eelgrass habitat functions as a nursery and refuge for many plants and animals, particularly larval and juvenile fish. Eelgrass beds support extensive populations of forage fish which are fed upon by larger fishes and piscivorous birds, such as the state and federally endangered California least tern (*Sterna antillarum brownii*) and California brown pelican (*Pelecanus occidentalis californicus*). The new dock structure is proposed within an existing eelgrass bed. The Department is concerned about the construction of the new dock project because it will result in the loss of a minimum of 759 ft^2 of eelgrass habitat. We are further concerned that the estimated loss of eelgrass does not take all potential eelgrass losses into account. For example, the estimated loss of 759 ft^2 is due to pile driving activities and shading of eelgrass by the new dock. This estimate excludes any expected loss d[illegible]

shading attributed to the moored boat(s), or from impacts associated with boat traffic. Additionally, eelgrass mitigation is typically considered only after all feasible provisions regarding avoidance and minimization have been addressed. We do not believe the applicant has investigated all feasible measures to reduce impacts to eelgrass. The Department is also concerned about the success of the eelgrass transplants. Finally, we are concerned about the additional loss of foraging opportunities for least terns and brown pelicans from the additional bay coverage. These issues and recommendations are addressed in detail below.

- We recommend the applicant take measures to address additional eelgrass habitat loss and account for eelgrass loss from shading of the moored boat(s) and from boat traffic (e.g., propeller scarring). This can be accomplished by additional monitoring of the project site. Thus, we recommend the project site be monitored for an additional 2 years to allow a determination of the actual loss of eelgrass. Additional loss of eelgrass would be mitigated in accordance with the SCEMP.
- The LOP does not specify the size or number of boats planning to utilize the new dock. If the size and number of moored boats is currently unknown, we question the proposed size of the new dock; 36 feet-long by 12 feet-wide.
- We do not believe that the applicant has considered all feasible alternatives to reduce impacts to eelgrass habitat. For example, the dock platform could be comprised of material that allows additional light to penetrate to the eelgrass beds below, e.g., a grated platform, or one comprised of translucent material. We recommend the applicant further investigate gangway and docking materials/engineering designs that result in increased light penetration.
- It is likely that the current un-vegetated areas in Lower and Upper Newport Bay are naturally un-vegetated due to persistent environmental constraints. Thus, the continued success of an eelgrass transplant in these areas is questionable. In order to evaluate transplant success, the Department recommends the applicant continue to monitor and survey the transplant sites for an additional 24 months beyond the 60-month period stated in the SCEMP. It should be noted, as documented in the SCEMP, that supplementary transplants will need to be conducted if project criteria success is not met, and once supplementary transplants have been completed, the monitoring process starts over. It is feasible that for questionable transplant sites, like those proposed, monitoring could continue for 10 or more years.
- Construction of a 432-ft^2 dock will cover bay waters and result in reduced foraging opportunities for the least tern and brown pelican. The loss of available foraging opportunities associated with this project, although small, is of concern to the Department because of cumulative impacts from this kind of activity. While we do not object to the proposed project, the Department requests the Corps work with us and other interested agencies (e.g., USFWS) to establish a means to mitigate such impacts.
- The proposed project will add two new piles. We assume the new piles will be concrete or other benign materials such as plastic or metal. The Department has a position of not approving the placement of creosote-treated wood products (e.g., pilings) in waters of the State.

D2

- It should be noted that an eelgrass transplant will require a letter of permission from the Department. Transplant requests should be sent to the Department, at the San Diego Office address provided below, a minimum of 1 month before the intended transplant activities. No more than 10 percent of an existing eelgrass bed may be harvested for transplanting.

We thank you for the opportunity to provide our comments and recommendations. As always, Department personnel are available to discuss our comments, concerns, and recommendations in greater detail. To arrange for a discussion, please contact Ms. Marilyn Fluharty, Environmental Scientist, California Department of Fish and Game, 4949 Viewridge Avenue, San Diego, CA 92123, telephone (858) 467-4231.

Sincerely,

COPY ORIGINAL SIGNED BY ROBERT N. TASTO

Robert N. Tasto, Supervisor
Environmental Services Program
Marine Region

cc: Ms. Marilyn Fluharty
Department of Fish and Game
San Diego, California

Mr. Robert Hoffman
National Marine Fisheries Service
Long Beach, California

Mr. David Zoutendyk
U.S. Fish & Wildlife Service
Carlsbad, California

Ms. Meg Vaughn
California Coastal Commission
Long Beach, California

D3

California Regional Water Quality Control Board
Santa Ana Region

Winston Hickox
Secretary for
Environmental
Protection

Internet Address: http://www.swrcb.ca.gov
3737 Main Street, Suite 500, Riverside, California 92501-3348
Phone (909) 782-4130 ▯ FAX (909) 781-6288

Gray Davis
Governor

March 13, 2002

Beth Swift
Swift Slip Dock and Pier Builders
2027 Placentia Avenue
Costa Mesa, CA 92627

PROPOSED INSTALLATION OF BOAT DOCK, JOHN FLYNN (TR FOR H.I. PROPERTY TRUST), 34 HARBOR ISLAND, NEWPORT BEACH, ORANGE COUNTY

Dear Ms. Swift:

If standard dock construction methods and materials are utilized, this project should not adversely impact water quality. A statement has been submitted that there will be no waste discharged from the proposed project. Based on these assurances, clearance is provided.

However, should the Army Corps of Engineers determine that this project requires a Section 404 permit, it will be necessary for the project proponent to obtain from this Board a Water Quality Certification under Section 401 of the Clean Water Act.

Should you have any questions, please contact Jawed Shami at (909) 782-3288.

Sincerely,

Filomeno T. Martirez Jr

Filomeno (Jun) T. Martirez, Jr., P.E.
Chief, Regulations Section

cc: California Coastal Commission, Long Beach
Army Corps of Engineers – Erik Larsen
City of Newport Beach, Marine Department - Tony Meller

JIS/blutag141let

SOUTHERN CALIFORNIA EELGRASS MITIGATION POLICY

(Adopted July 31, 1991)

Eelgrass (Zostera marina) vegetated areas function as important habitat for a variety of fish and other wildlife. In order to standardize and maintain a consistent policy regarding mitigating adverse impacts to eelgrass resources, the following policy has been developed by the Federal and State resource agencies (National Marine Fisheries Service, U.S. Fish and Wildlife Service, and the California Department of Fish and Game). This policy should be cited as the Southern California Eelgrass Mitigation Policy (revision 8).

For clarity, the following definitions apply. "Project" refers to work performed on-site to accomplish the applicant's purpose. "Mitigation" refers to work performed to compensate for any adverse impacts caused by the "project". "Resource agencies" refers to National Marine Fisheries Service, U.S. Fish and Wildlife Service, and the California Department of Fish and Game.

1. **Mitigation Need.** Eelgrass transplants shall be considered only after the normal provisions and policies regarding avoidance and minimization, as addressed in the Section 404 Mitigation Memorandum of Agreement between the Corps of Engineers and Environmental Protection Agency, have been pursued to the fullest extent possible prior to the development of any mitigation program.

2. **Mitigation Map.** The project applicant shall map thoroughly the area, distribution, density and relationship to depth contours of any eelgrass beds likely to be impacted by project construction. This includes areas immediately adjacent to the project site which have the potential to be indirectly or inadvertently impacted as well as areas having the proper depth and substrate requirements for eelgrass but which currently lack vegetation.

Protocol for mapping shall consist of the following format:

1) Coordinates

   Horizontal datum - Universal Transverse Mercator (UTM), NAD 83, Zone 11

   Vertical datum - Mean Lower Low Water (MLLW), depth in feet.

2) Units

   Transects and grids in meters.

   Area measurements in square meters/hectares.

All mapping efforts must be completed during the active growth phase of the vegetation (typically March through October) and shall be valid for a period of 120 days with the exception of surveys completed in August - October.

A survey completed in August - October shall be valid until the resumption of active growth (i.e., March 1). After project construction, a post-project survey shall be completed within 30 days. The actual area of impact shall be determined from this survey.

3. **Mitigation Site.** The location of eelgrass transplant mitigation shall be in areas similar to those where the initial impact occurs. Factors such as, distance from project, depth, sediment type, distance from ocean connection, water quality, and currents are among those that should be considered in evaluating potential sites.

4. **Mitigation Size.** In the case of transplant mitigation activities that occur concurrent to the project that results in damage to the existing eelgrass resource, a ratio of 1.2 to 1 shall apply. That is, for each square meter adversely impacted, 1.2 square meters of new suitable habitat, vegetated with eelgrass, must be created. The rationale for this ratio is based on, 1) the time (i.e., generally three years) necessary for a mitigation site to reach full fishery utilization and 2) the need to offset any productivity losses during this recovery period within five years. An exception to the 1.2 to 1 requirement shall be allowed when the impact is temporary and the total area of impact is less than 100 square meters. Mitigation on a one-for-one basis shall be acceptable for projects that meet these requirements (see section 11 for projects impacting less than 10 square meters).

Transplant mitigation completed three years in advance of the impact (i.e., mitigation banks) will not incur the additional 20% requirement and, therefore, can be constructed on a one-for-one basis. However, all other annual monitoring requirements (see sections 8-9) remain the same irrespective of when the transplant is completed.

Project applicants should consider increasing the size of the required mitigation area by 20-30% to provide greater assurance that the success criteria, as specified in Section 9, will be met. In addition, alternative contingent mitigation must be specified, and included in any required permits, to address situation where performance standards (see section 9) are not met.

5. **Mitigation Technique.** Techniques for the construction and planting of the eelgrass mitigation site shall be consistent with the best available technology at the time of the project. Donor material shall be taken from the area of direct impact whenever possible, but also should include a minimum of two additional distinct sites to better ensure genetic diversity of the donor plants. No more than 10% of an existing bed shall be harvested for transplanting purposes. Plants harvested shall be taken in a manner to thin an existing bed without leaving any noticeable bare areas. Written permission to harvest donor plants must be obtained from the California Department of Fish and Game.

Plantings should consist of bare-root bundles consisting of 8-12 individual turions. Specific spacing of transplant units shall be at the discretion of the project applicant. However, it is understood that whatever techniques are employed, they must comply with the stated requirements and criteria.

F 2

6. **Mitigation Timing.** For off-site mitigation, transplanting should be started prior to or concurrent with the initiation of in-water construction resulting in the impact to the eelgrass bed. Any off-site mitigation project which fails to initiate transplanting work within 135 days following the initiation of the in-water construction resulting in impact to the eelgrass bed will be subject to additional mitigation requirements as specified in section 7. For on-site mitigation, transplanting should be postponed when construction work is likely to impact the mitigation. However, transplanting of on-site mitigation should be started no later than 135 days after initiation of in-water construction activities. A construction schedule which includes specific starting and ending dates for all work including mitigation activities shall be provided to the resource agencies for approval at least 30 days prior to initiating in-water construction.

7. **Mitigation Delay.** If, according to the construction schedule or because of any delays, mitigation cannot be started within 135 days of initiating in-water construction, the eelgrass replacement mitigation obligation shall increase at a rate of seven percent for each month of delay. This increase is necessary to ensure that all productivity losses incurred during this period are sufficiently offset within five years.

8. **Mitigation Monitoring.** Monitoring the success of eelgrass mitigation shall be required for a period of five years for most projects. Monitoring activities shall determine the area of eelgrass and density of plants at the transplant site and shall be conducted at 3, 6, 12, 24, 36, 48, and 60 months after completion of the transplant. All monitoring work must be conducted during the active vegetative growth period and shall avoid the winter months of November through February. Sufficient flexibility in the scheduling of the 3 and 6 month surveys shall be allowed in order to ensure the work is completed during this active growth period. Additional monitoring beyond the 60 month period may be required in those instances where stability of the proposed transplant site is questionable or where other factors may influence the long-term success of transplant.

The monitoring of an adjacent or other acceptable control area (subject to the approval of the resource agencies) to account for any natural changes or fluctuations in bed width or density must be included as an element of the overall program.

A monitoring schedule that indicates when each of the required monitoring events will be completed shall be provided to the resource agencies prior to or concurrent with the initiation of the mitigation.

Monitoring reports shall be provided to the resource agencies within 30 days after the completion of each required monitoring period.

9. **Mitigation Success.** Criteria for determination of transplant success shall be based upon a comparison of vegetation coverage (area) and density (turions per square meter) between the project and mitigation sites. Extent of vegetated cover is defined as that area where eelgrass is present and where gaps in coverage are less than one meter between individual turion clusters. Density of shoots is defined by the number of turions per area present in representative samples

within the control or transplant bed. Specific criteria are as follows:

a. a minimum of 70 percent area of eelgrass bed and 30 percent density after the first year.

b. a minimum of 85 percent area of eelgrass bed and 70 percent density after the second year.

c. a sustained 100 percent area of eelgrass bed and at least 85 percent density for the third, fourth and fifth years.

Should the required eelgrass transplant fail to meet the established criteria, then a Supplementary Transplant Area (STA) shall be constructed, if necessary, and planted. The size of this STA shall be determined by the following formula:

$$STA = MTA \times (|A_t + D_t| - |A_c + D_c|)$$

MTA = mitigation transplant area.
A_t = transplant deficiency or excess in area of coverage criterion (%).
D_t = transplant deficiency in density criterion (%).
A_c = natural decline in area of control (%).
D_c = natural decline in density of control (%).

Four conditions apply:
1) For years 2-5, an excess of only up to 30% in area of coverage over the stated criterion with a density of at least 60% as compared to the project area may be used to offset any deficiencies in the density criterion.
2) Only excesses in area criterion equal to or less than the deficiencies in density shall be entered into the STA formula.
3) Densities which exceed any of the stated criteria shall not be used to offset any deficiencies in area of coverage.
4) Any required STA must be initiated within 120 days following the monitoring event that identifies a deficiency in meeting the success criteria. Any delays beyond 120 days in the implementation of the STA shall be subject to the penalties as described in Section 7.

10. **Mitigation Bank.** Any mitigation transplant success that, after five years, exceeds the mitigation requirements, as defined in section 9, may be considered as credit in a "mitigation bank". Establishment of any "mitigation bank" and use of any credits accrued from such a bank must be with the approval of the resource agencies and be consistent with the provisions stated in this policy. Monitoring of any approved mitigation bank shall be conducted on an annual basis until all credits are exhausted.

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11. **Exclusions.**

1) Placement of a single pipeline, cable, or other similar utility line across an existing eelgrass bed with an impact corridor of no more than ½ meter wide may be excluded from the provisions of this policy with concurrence of the resource agencies. After project construction, a post-project survey shall be completed within 30 days and the results shall be sent to the resource agencies. The actual area of impact shall be determined from this survey. An additional survey shall be completed after 12 months to insure that the project or impacts attributable to the project have not exceeded the allowed ½ meter corridor width. Should the post-project or 12 month survey demonstrate a loss of eelgrass greater than the ½ meter wide corridor, then mitigation pursuant to sections 1-11 of this policy shall be required.

2) Projects impacting less than 10 square meters. For these projects, an exemption may be requested by a project applicant from the mitigation requirements as stated in this policy, provided suitable out-of-kind mitigation is proposed. A case-by-case evaluation and determination regarding the applicability of the requested exemption shall be made by the resource agencies.

(last revised 2/2/99)

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