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PETE WILSON, Governor

CALIFORNIA COASTAL COMMISSION NORTH COAST AREA 45 FREMONT, SUITE 2000

FRANCISCO, CA 94105-2219 904-5260





Filed: Hearing Opened: 180th Day: Staff: Staff Report: Hearing Date: **Commission Action:** December 12, 1996 January 9, 1997 June 10, 1997 Bill Van Beckum January 17, 1997 February 5, 1997

STAFF REPORT: REGULAR CALENDAR

APPLICATION NO.: 1-96-05

CLARENCE C. KENT **APPLICANTS:**

PROJECT LOCATION: 49 Wharf Road, Bolinas, Marin County, APN 193-061-19

PROJECT DESCRIPTION: Repair and reconfigure an integrated \pm 250-foot-long concrete seawall/boat dock structure by: (1) strengthening 145-165 feet of both the north and south ends by installing tie rods and concrete deadmen behind the structure; (2) replacing the center 60-foot section (fixed dock area) with a floating dock and concrete stepped terrace wall within an on-shore excavated area; and (3) protecting 140 contiguous feet of the reconfigured structure's toe by placing an 18-inch-high by 4-foot-wide strip of rip-rap (maximum 200 lb. rocks over existing sacked concrete re-installed over new filter fabric) on the adjacent mudflat.

PLAN/ZONING DESIGNATION:

Coastal Residential, Agricultural/C-R-A: B-2 (10,000 sq.ft. lot min.)

LOCAL APPROVALS RECEIVED: County of Marin Design Review and Tidelands Permit Exemptions

SUBSTANTIVE FILE DOCUMENTS: Marin County Local Coastal Program

STAFF NOTES:

<u>Previous Commission Consideration</u>. At the Commission's January 9, 1997 1. meeting, the Commission removed this application from the consent calendar and scheduled the matter for public hearing at the February, 1997, Commission meeting. That action was in response to concerns raised in two letters received just prior to the meeting regarding possible effects of project construction activities on Great Blue Herons nesting in nearby trees. More specifically, the concerns are that if construction occurs in the first half of the year as proposed, i.e., during the January through June heron breeding season, construction noise could cause nesting herons to abandon their nests.

Since the January meeting, staff has been investigating the situation to determine the actual presence of herons, the flexibility of construction scheduling, the types and levels of construction noise anticipated, the impacts of such noises, and means that may be available to reduce such impacts. Discussions with the applicant, the Department of Fish and Game and other knowledgeable sources has produced some helpful information, but the applicant's representative has indicated he will be sending additional information for the Commission's consideration and the staff is continuing to investigate the issue. Therefore, the staff report does not present any alternative findings or recommendations to what was included in the consent calendar staff report prepared for the January Commission meeting. However, before the Commission's February, meeting staff will prepare an addendum to the staff report to describe the results of the investigation, and to include a revised recommendation if deemed appropriate.

2. <u>Standard of Review</u>. The proposed project is located on the west shore of Bolinas Lagoon. Marin County has a certified LCP, but the project site is in tidal areas within the Commission's retained jurisdiction. Therefore, the standard of review that the Commission must apply to the project is the Chapter 3 policies of the Coastal Act.

STAFF RECOMMENDATION:

The staff recommends that the Commission adopt the following resolution:

I. <u>Approval with Conditions</u>.

The Commission hereby <u>grants</u> a permit, subject to the conditions below, for the proposed development on the grounds that the development will be in conformity with the provisions of Chapter 3 of the California Coastal Act of 1976, is located between the sea and the first public road nearest the shoreline and is in conformance with the public access and public recreation policies of Chapter 3 of the Coastal Act, and will not have any significant adverse impacts on the environment within the meaning of the California Environmental Quality Act.

II. <u>Standard Conditions</u>. See Attachment A.

III. Special Conditions.

1. <u>Construction Debris Removal</u>.

All construction debris shall be removed from the site and disposed of at a lawful disposal site. Any floating debris allowed to enter the waters of Bolinas Lagoon shall be retrieved and lawfully disposed of.

2. U.S. Army Corps of Engineers Review.

PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, the applicants shall provide to the Executive Director a copy of a U.S. Army Corps of Engineers

permit, letter of permission, or nationwide permit granted for the project.

IV. <u>Findings and Declarations</u>.

The Commission hereby finds and declares as follows:

1. <u>Project and Site Description</u>.

The proposed development site is a 1.37-acre parcel on the west shore of Bolinas Lagoon, in the town of Bolinas. See <u>Exhibit 1</u>. The parcel contains a single-family residence and established landscaping.

The applicant proposes to repair an approximately 250-foot-long concrete seawall that protects the northeast side of the property. The structure has a maximum height of about 10 feet. Although the age of the deteriorating seawall is not known, it predates 1969, when some remedial work to the seawall was performed. A geotechnical investigation for the project (Miller Pacific Engineering Group, May 16, 1996) describes the present condition of the seawall:

The seawall has settled, cracked and rotated towards the lagoon in several areas, with the largest deflections occurring in the mid to southern sections of the wall. In addition to the rotation and settlement of the wall, the base of the wall has been undermined and subjected to erosion from the tidal lagoon waters. The undermining of the wall has resulted in a 40-foot long erosion depression where the backfill settled and washed out from beneath the concrete wall. It was reported that during higher high tides, the settled portion of the wall is overtopped. This overtopping apparently results in additional loss of wall backfill and debris cleanup. Near the middle of the wall, there is a section of deteriorated concrete and a void with exposed rebar.

The proposed rehabilitation of the seawall includes the following components: (1) strengthening 145-165 feet of the structure's north and south ends by installing tie rods and concrete deadmen behind the structure; (2) replacing the structure's center 60-foot section (which includes a fixed dock) with a floating dock and concrete stepped terrace wall within an on-shore excavated area; and (3) protecting 140 contiguous feet of the reconfigured structure's toe by placing an 18-inch-high and 4-ft-wide strip of rip-rap (maximum 200 lb. rocks over existing sacked concrete re-installed over new filter fabric) on the adjacent mudflat. See <u>Exhibit 3</u>.

2. Fill in Coastal Waters and Protection of Marine Resources.

The Coastal Act defines fill as including "earth or any other substance or material ... placed in a submerged area." The proposed project includes the placement of fill in coastal waters in the form of rip-rap and filter fabric that will be placed in a submerged lagoon-edge area now occupied by protective sacked concrete. The filter fabric and riprap will cover a total of

approximately 560 square feet of tidal and submerged area, much of which is already covered by the concrete sacks. Although the actual increase of lagoon bottom coverage is minimal, the placement of the new materials in a submerged area meets the Coastal Act definition of fill. The seawall itself, although being reconfigured in part, to include a central terraced area with a floating dock, will not protrude into the lagoon beyond the limits of the existing structure.

Sections 30233 and 30235 of the Coastal Act address the placement of fill within coastal waters and the construction of seawalls. Section 30233(a) provides as follows, in applicable 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:

(1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.

(2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.

(3) In wetland areas only, entrance channels for new or expanded boating facilities; and in a degraded wetland, identified by the Department of Fish and Game pursuant to subdivision (b) of Section 30411, for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland. The size of the wetland area used for boating facilities, including berthing space, turning basins, necessary navigation channels, and any necessary support service facilities, shall not exceed 25 percent of the degraded wetland.

(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.

(5) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.

(6) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.

(7) Restoration purposes.

(8) Nature study, aquaculture, or similar resource dependent activities.

Section 30235 provides, in applicable part:

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

The above policies set forth a number of different limitations on what seawall fill projects may be allowed in coastal waters. For analysis purposes, the limitations can be grouped into four general categories or tests. These tests are:

- a. that the purpose of the seawall fill is either for one of eight uses allowed under Section 30233, to serve coastal dependent uses, or to protect existing structures or public leaches in danger from erosion; and
- b. that the project is designed to eliminate or mitigate adverse impacts on local sand supply; and
- c. that the project has no feasible less environmentally damaging alternative; and
- d. that adequate mitigation measures to minimize the adverse impacts of the proposed project on habitat values have been provided.

Purpose of Seawall Fill

The proposed project, although not an allowable use for fill under Section 30233(a), meets the first limitation regarding project purpose as the purpose of the project is to protect an existing residence from erosion, consistent with Section 30235.

Protection of Sand Supply

The project also meets Section 30235 criteria regarding the protection of local shoreline sand supply because it would repair an existing seawall and there is no evidence that the existing seawall has had any effect on existing local shoreline sand supplies. The nearest sandy beach is located approximately 1/2 mile south of the site, at the entrance to the Bolinas Lagoon at Bolinas Beach, which faces the west end of the Seadrift spit. The sand supplies at Bolinas Beach and the Seadrift spit are stongly effected by ocean wave dynamics, and not primarily by currents and wave action within the lagoon. The proposed repairs of the seawall with its minimal encroachment onto the mudflat will not affect ocean wave dynamics. In addition, the

proposed revetment fill will not placed to augment an existing seawall that already acts to contain the bank material from eroding into the bay and becoming part of the local sand supply.

<u>Alternatives</u>

No feasible alternatives to the proposed project resulting in less environmental damage have been identified. The "no project" alternative would eventually result in further deterioration of the seawall and the introduction of presently contained materials into the lagoon. The applicant's "alternatives" discussion notes that in a "no project" scenario:

The dock area and the area to the south can be expected to fall in to the lagoon within the next few years. This would release the existing backfill soil into the lagoon and lead to some extensive dredging, breaking up and lifting large fragments of wall from the water, and the construction of a new wall. The resulting disturbance is not considered appropriate from ecological or cost perspectives.

Therefore, the no project alternative is neither feasible nor a less environmentally damaging alternative as it will not accomplish the project objectives of protecting the existing residential development from erosion and collapse and will eventually lead to degradation of the lagoon by allowing structural debris and backfill material to escape into the lagoon.

The alternative of using soil-anchored tiebacks drilled through the seawall was favored by the applicant during the early stages of design development, but was subsequently "rejected because geotechnical investigation revealed that the soils at the back of the wall would not provide sufficient support to the tiebacks. The tiebacks would be excessively long and require casing, therefore requiring extensive work at the lagoon side of the wall."

The applicant selected the proposed method of repair, i.e., a combination of tie rods with deadmen walls for seawall support and rip-rap as toe protection, because the structural elements can be installed from behind the seawall and the rip-rap can be manually placed, "undertaken at low tides only ... with lifting assistance from the land."

No other feasible alternatives for repairing the existing structures have been identified that would involve less fill and less disruption to the lagoon.

Adequate Mitigation Measures

The area to receive the fill consists of 560 square feet of unvegetated mudflat covered in many areas with pieces of concrete. The portion of mudflat not covered by the concrete supports a variety of worms, mollusks, and other benthic organisms. The area covered by concrete may provide habitat for such invertebrates as barnacles and mussels. The minor loss of mud flat area and hard bottom habitat to be displaced by the toe fill for the seawall is not proposed to be offset by the removal of other material. The Commission finds

that the adverse impact of the limited amount of additional riprap material on invertebrates and benthic organisms will be offset by the new habitat that the surface area of the riprap is expected to provide for such invertebrates as barnacles and mussels. Such hard intertidal substrate is relatively limited within Bolinas Lagoon. Therefore, the Commission finds that no additional mitigation is necessary for the minor displacement of bottom habitat.

The project could have an adverse impact on the water quality of Bolinas Lagoon if construction debris were allowed to enter the water. To ensure that the project is consistent with Coastal Act Section 30231 which requires, in part, that the quality of coastal waters be maintained, the Commission attaches Special Condition No. 1, which requires all construction debris to be removed from the site and lawfully disposed of, including any floating debris that enters the water.

<u>Conclusion</u>

The Commission thus finds that the project, although not one of the allowable uses for fill of coastal waters under Section 30233(a), is allowable as a repair of a seawall to protect an existing structure under Section 30235, will not create adverse impacts on local shoreline sand supplies, is the least environmentally damaging feasible alternative, and includes adequate mitigation for the minor impacts associated with project construction activities will be provided. Therefore, the Commission finds that the proposed development is consistent with Sections 30231, 30233 and 30235 of the Coastal Act.

3. <u>Public Access</u>.

Section 30212 of the Coastal Act requires that access from the nearest public roadway to the shoreline be provided in new development projects except where it is inconsistent with public safety, military security, or protection of fragile coastal resources, or adequate access exists nearby. Section 30211 requires that development not interfere with the public's right to access gained by use or legislative authorization. In applying Section 30211 and 30212, the Commission is also limited by the need to show that any denial of a permit application based on these sections, or any decision to grant a permit subject to special conditions requiring public access, is necessary to avoid or offset a project's adverse impact on existing or potential access.

Although the project is located between the first public road, Wharf Road, and the sea, it will not adversely affect public access. No public access exists on the site that could potentially be affected by the project. In addition, the proposed seawall repairs will not change the nature or intensity of residential use, and thus will not create any new demand for public access or otherwise create any additional burdens on public access. Therefore, the Commission finds that the proposed project does not have any adverse effect on public access, and that the project as proposed is consistent with the requirements of Coastal Act Sections 30210, 30211, and 30212.

4. <u>Visual Resources</u>.

Section 30251 of the Coastal Act states that the scenic and visual qualities of coastal areas be considered and protected as a resource of public importance, and requires in applicable part that permitted development be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, and to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas.

The seawall repair project will not result in any blockage of public views to Bolinas Lagoon because it is to protect a property which is already hidden from view by a solid fence from Wharf Road. Also, since the proposed repairs will not extend beyond the existing seawall, no part of the project will protrude into lagoon waters in any way that would obstruct views along the waters' edge. The project will not require any land form alteration other than temporary excavation behind the seawall. Therefore the project is consistent with Section 30251 coastal visual resources protection requirements.

5. U.S. Army Corps of Engineers Approval.

The project requires review and approval by the U.S. Army Corps of Engineers. Pursuant to the Federal Coastal Zone Management Act, any permit issued by a federal agency for activities that affect the coastal zone must be consistent with the coastal zone management program for that state. Under agreements between the Coastal Commission and the U.S. Army Corps of Engineers, the Corps will not issue a permit until the Coastal Commission approves a federal consistency certification for the project or approves a permit. To ensure that the project ultimately approved by the Corps is the same as the project authorized herein, the Commission attaches Special Condition No. 2 which requires the permittee to submit to the Executive Director evidence of U.S. Army Corps of Engineers approval of the project prior to the commencement of work.

6. <u>California Environmental Quality Act (CEQA)</u>.

Section 13096 of the Commission's administrative regulations requires Commission approval of Coastal Development Permit applications to be supported by a finding showing the application, as modified by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(i) 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 impact which the activity may have on the environment. As discussed above, the project has been mitigated to prevent construction debris from polluting the waters of Bolinas Lagoon. The project, as conditioned, therefore will not have a significant adverse effect on the environment within the meaning of CEQA.

EXHIBITS:

- Regional Location Map
 Site Location Map
 Site Plan

9212p/bvb/WANG

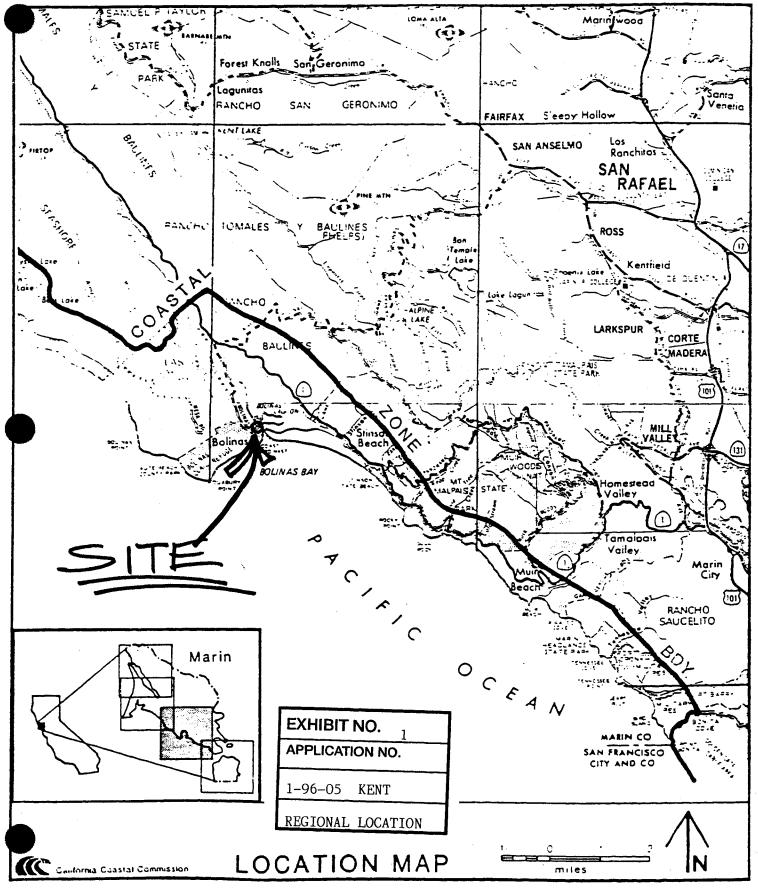
ATTACHMENT A

Standard Conditions

- 1. <u>Notice of Receipt and Acknowledgment</u>. 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. <u>Expiration</u>. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
- 3. <u>Compliance</u>. All development must occur in strict compliance with the proposal as set forth in the application for permit, subject to any special conditions set forth below. Any deviation from the approved plans must be reviewed and approved by the staff and may require Commission approval.
- 4. <u>Interpretation</u>. Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.
- 5. <u>Inspections</u>. The Commission staff shall be allowed to inspect the site and the development during construction, subject to 24-hour advance notice.
- 6. <u>Assignment</u>. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
- 7. <u>Terms and Conditions Run with the Land</u>. 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.



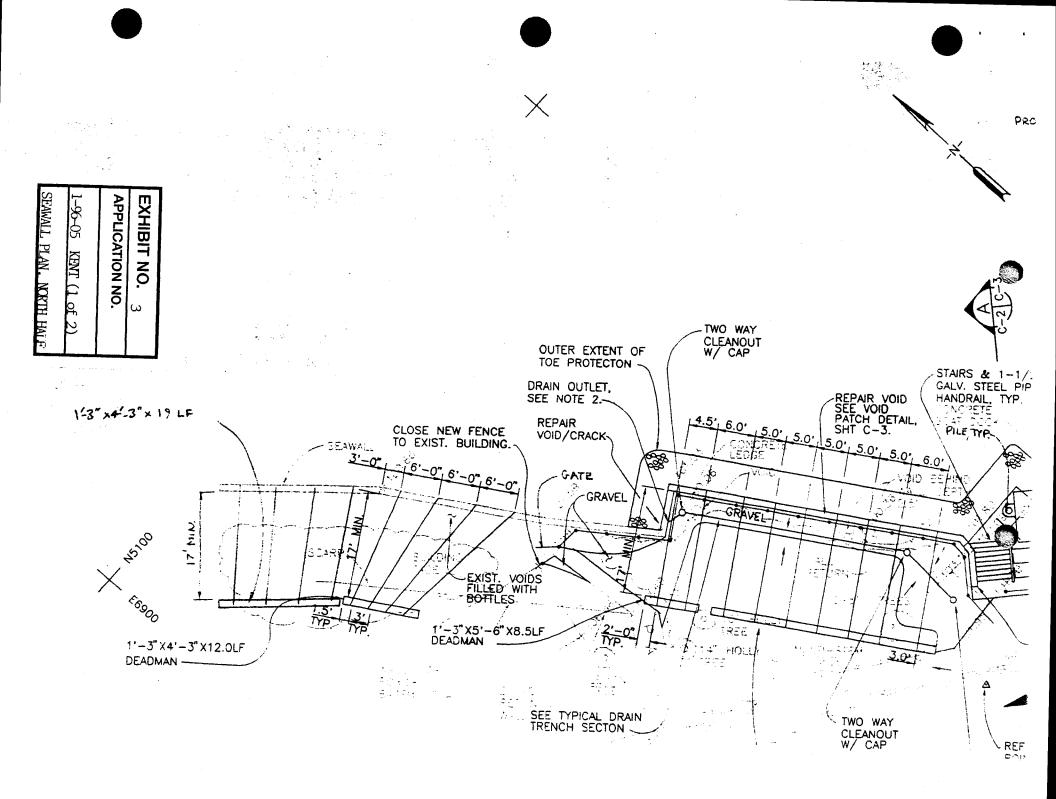


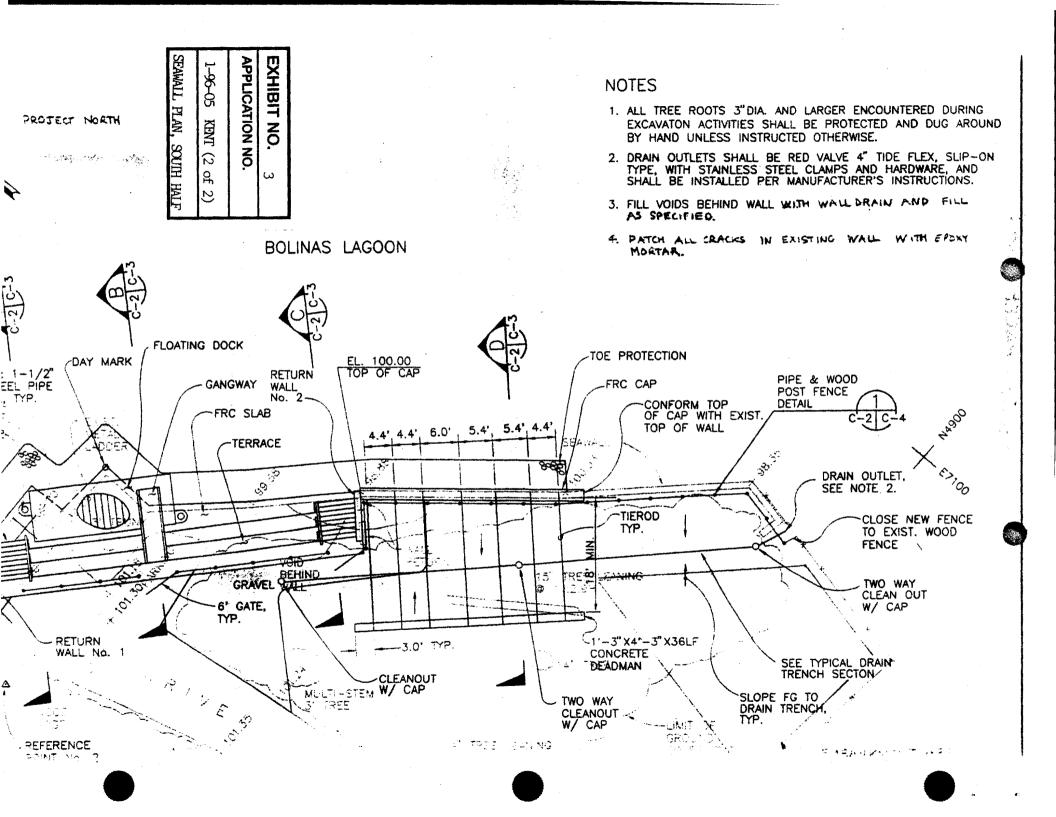


County of Marin

Sheet 3 of 3

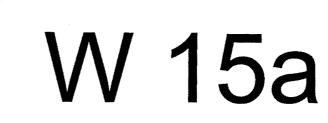






PETE WILSON, Governor

CALIFORNIA COASTAL COMMISSION NORTH COAST AREA 45 FREMONT, SUITE 2000 SAN FRANCISCO, CA 94105-2219 (415) 904-5260



January 24, 1997

TO: Commissioners and Interested Persons

FROM: Peter M. Douglas, Executive Director Bill Van Beckum, Coastal Planner, North Coast

SUBJECT: Addendum to Staff Report for Coastal Development Permit Application No. **1-96-05, Clarence C. Kent** Concrete Seawall/Boat Dock Repair and Reconfiguration, on Residential Parcel, Bolinas, Marin County (Hearing Date: Wednesday, February 5, 1997, Item 15a)

The January 17, 1997 staff report for this application describes how this item was removed from the consent calendar at the Commission's January 9, 1997 meeting and scheduled for public hearing at the Commisssion's February 1997 meeting. That action was in response to concerns raised regarding the possible effects of project construction noise on Great Blue Herons nesting in nearby trees. The January 17 report did not present any alternative findings or recommendations to what was included in the earlier consent calendar report because staff had not yet completed its investigations regarding those concerns.

The purpose of this addendum is to provide additional information, in the form of an additional "findings" section, and to recommend that an additional Special Condition be attached to the recommendation for project approval. Specifically, staff recommends that Special Condition No.3 be added (to page 3 of the staff report), to read as follows:

3. Limits of Work Season.

All construction activities shall be limited to the period of the year between July 1 and December 31 to minimize adverse impacts to nesting Great Blue Herons.

Staff further recommends that Finding No. 7 be added (to page 8 of the staff report), to read as follows:

Addendum - CDP Application No. 1-96-05, Clarence C. Kent Page 2

7. <u>Environmentally Sensitive Habitat Areas</u>:

Section 30240 of the Coastal Act states that environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values and that development near such sensitive habitat shall be sited and designed to prevent significant adverse impacts to these areas. Section 30107.5 of the Coastal Act defines "environmentally sensitive area" as "any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments."

The proposed project site is approximately 100 to 200 feet south of a stand of Monterey Pines in which a small colony of Great Blue Herons has been observed nesting. Great Blue Herons are long-legged, long-necked wading birds frequently seen foraging in the Bolinas Lagoon tide flats. Their nests are similar to and often mixed in with egret colonies such as those across the Bolinas Lagoon at the Audubon Canyon Ranch, a popular coastal-visitor destination in west Marin County. Correspondence from the Audubon Canyon Ranch resident biologist, John P. Kelly, January 2, 1997, has raised concerns with the possible effects of project construction noise on the herons nesting in the pines on the subject property (attached <u>Exhibit 4</u>). According to Mr. Kelly, "herons are sensitive to any changes in normal levels of noise or human activity ... we have seen indications that Great Blue Herons will abandon nesting colonies in response to tree trimming noises as far as 100 meters away." While Mr. Kelly notes that the extent of disturbance from human activities near nesting colonies is not fully understood, and is variable among sites and stages within the nesting cycle, he recommends that construction activities be restricted "to the nonbreeding season, July through December." Mr. Kelly also suggests that a delay in the project start date beyond July 1 might be appropriate, because "delayed breeding attempts occasionally extend the nesting period into August."

Department of Fish and Game wildlife biologist Fred Botti, contacted by staff on January 15, 1977, agrees that heron nesting activity could continue beyond July 1. Mr. Botti also notes, however, that although heron nesting does frequently begin in January, most nesting, for approximately 80% of heron populations, occurs from February through May. Mr. Botti has also indicated that as long as the noise levels in the earlier stages of the estimated 3-month-long construction period are not excessive a July 1 start-date should adequately protect any herons still nesting, after the end of June, from any adverse affects of construction noise.

According to Mr. Botti, an even earlier start-date than July 1 would be acceptable if construction noise levels do not exceed a level of 80 decibels within 300 feet of the nests. However, since the applicant anticipates occasional noise levels that may reach into the 90-100 decibel range during some phases of construction, within 100-200 feet of nests, an earlier start-date under these circumstances would pose the risks of adverse impacts Addendum - CDP Application No. 1-96-05, Clarence C. Kent Page 3

described in the Audubon Canyon Ranch correspondence. These higher levels are sounds "from trenching, transporting of soil and rock, and concrete placing ... (and) removal of the existing wall in front of the terrace ... towards the latter part of construction period" (January 17, 1997 communication from the applicant's consulting engineer, Mr. Richard Lindsay).

The Commission therefore attaches special Condition No.3 to avoid any adverse impacts to nesting Great Blue Herons near the project site. This condition prohibits project construction activity during the period January 1 through June 30 so that construction noise will not disturb heron nesting activity. Therefore, the Commission finds that the project as conditioned is consistent with Section 30240 of the Coastal Act in that environmentally sensitive habitats will be protected against any significant disruption of habitat values.

EXHIBIT

4. Correspondence

9215p/WANG



AUDUBON CANYON RANCH

CYPRESS GROVE PRESERVE

Th 3a

EXHIBIT NO.

APPLICATION NO. 1-96-05 KENT

Correspondence

4

2 January 1990

William G. Van Beckum California Coastal Commission 45 Fremont, Suites 1900 and 2000 San Francisco, CA 94105-2219

RE: Permit Application #1-96-005 for reconstruction of sea wall, by Clarence C. Kent

Dear Mr. Van Beckum:

Audubon Canyon Ranch (ACR) owns and manages a system of wildlife sanctuaries in Marin and Sonoma Counties, including a center for ecological research at Cypress Grove Preserve on Tomales Bay. We have monitored a nesting colony of herons and egrets on Bolinas Lagoon for over thirty years, and since 1990, have been studying the reproductive activities of herons and egrets at all known nesting colonies in Marin, Sonoma, Contra Costa, Solano, and Napa counties. ACR is concerned about the possibility of disturbance to a colony of Great Blue Herons nesting in Bolinas adjacent to the site of the proposed reconstruction of a sea wall and docking facility by Clarence C. Kent.

We have identified a wide range of disturbance patterns in the San Francisco Bay region, including numerous instances of site abandonment and reproductive failure. At Bolinas, we have documented responses of nesting herons to previous disturbances, including low-flying helicopters and direct harassment by human intruders. In general, herons are sensitive to any changes in normal levels of noise or human activity. In other areas, we have seen indications that Great Blue Herons will abandon nesting colonies in response to tree trimming noises as far as 100 meters away. However, the extent of disturbance from human activities near nesting colonies is poorly understood and quite variable among sites and stages within the nesting cyule. Consequently, it is impossible to accurately predict the disturbance effects of the proposed reconstruction. Disturbance to a Great Blue Heron colony during the nesting season would violate the federal Migratory Bird Treaty Act.

The nesting trees in Bolinas are located within 100-200 feet of the proposed reconstruction. Recommendations based on published scientific studies generally require construction activities to be limited to the nonbreeding season or distances of 100-300 *meters* from nesting colonies. Many studies of colony disturbances have confirmed that herons are more sensitive to disturbance, especially noise disturbance, earlier in the nesting season. Our own research has shown that herons are most sensitive to disturbance before incubation, with subsequent periods of high sensitivity after hatching and prior to fledging. At Bolinas, herons begin to occupy nesting sites in early January.

The simplest and best solution is to restrict reconstruction activities to the nonbreeding season, July through December, as a required condition of the Coastal Permit. In addition, completic:, of the nesting season should be certified by a qualified observer after July 1st because delayed breeding attempts occasionally extend the nesting period into August. This certification should

be established as a Permit condition for initiating reconstruction activities. ACR would be pleased to provide this service at no cost.

Audubon Canyon Ranch urges you to protect this valuable local resource. Please call me if y_{CI} have further questions. Thanks very much.

Sincerely,

John P. Kelly Resident Biologist

r.