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STATE OF CALIFORNIA - THE RESOURCES AGENCY

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Filed: December 23, 1999
49th Day: February 9, 2000
Staff: Eric Oppenheimer
Staff Report: January 28, 2000
Hearing Date: February 16, 2000
Commission Action:

STAFF REPORT: APPEAL

SUBSTANTIAL ISSUE

LOCAL GOVERNMENT: County of Mendocino

DECISION: Approval with Conditions

APPEAL NO.: A-1-MEN-99-081

APPLICANT: DAVID DEMARTINI

PROJECT LOCATION: Approximately ½ mile south of Getchell Gulch, at 36350 South Highway One, Anchor Bay (Mendocino County).

PROJECT DESCRIPTION: Construction of a 17.3-foot high, 2,642-square-foot single-family residence, attached garage, septic system, stormwater collection and distribution system, earthen berm, generator pad, and propane tank, on a 0.93-acre blufftop parcel.

APPELLANTS: (1) Commissioners Sara Wan and Mike Reilly; and (2) The Friends of Schooner Gulch, Redwood Chapter Sierra Club, and Mendocino & Lake Group Sierra Club.

SUBSTANTIVE FILE DOCUMENTS: Mendocino County CDP File No. 102-98/CDV 17-98; Mendocino County Local Coastal Program.

SUMMARY OF STAFF RECOMMENDATION:

1. SUMMARY OF STAFF RECOMMENDATION: SUBSTANTIAL ISSUE

The staff recommends that the Commission, after public hearing, determine that a substantial issue exists with respect to the grounds on which the appeal has been filed, and that the Commission hold a de novo hearing, because the appellants have raised a substantial issue with the local government's action and its consistency with the certified LCP.

Mendocino County approved a coastal development permit for the construction of a 17.3-foot-high, 2,642-square-foot single-family residence, with an attached garage, septic system, stormwater collection and distribution system, earthen berm, generator pad, and propane tank, on a 0.93-acre blufftop parcel. The appellants contend that the approved project raises a substantial issue of conformance with the County's LCP policies pertaining to geologic hazards, drainage, and seawalls.

Commission staff recommends that the Commission find that development, as approved by the County, raises a substantial issue of whether the proposed residence, located 25 feet from the bluff edge, would create a bluff retreat hazard or ultimately require the construction of a protective device, inconsistent with the policies of the certified LCP regarding hazards.

Commission staff also recommends that that Commission find that the project as approved raises a substantial issue of conformance with the policies of the certified LCP regarding bluff drainage. The proposed project includes installation of an earthen berm intended to route site runoff away from the proposed residence and toward the bluff. The County's conditions require monitoring of bluff erosion where the drainage would discharge over the bluff. However, the County's findings contain no analysis of whether the rerouted discharge would contribute to the erosion of the bluff face or to the instability of the bluff itself, contrary to the LCP policies, or whether the monitoring condition would be adequate to address the concern.

The motion to adopt the Staff Recommendation of Substantial Issue is found on page 5.

2. SUMMARY OF STAFF RECOMMENDATION DE NOVO: APPROVAL WITH CONDITIONS

The staff recommends that the Commission approve with conditions the coastal development permit for the proposed project on the basis that, as conditioned by the Commission, the project is consistent with the County's certified LCP and with the public access and public recreation policies of the Coastal Act.

The staff has determined that the current project, as approved by the County, is inconsistent with the geologic hazard policies of the certified LCP. However, proposed Special Condition No. 2, Special Condition No. 3, and Special Condition No. 6 can eliminate this inconsistency. Special Condition No. 2 requires recordation of a deed restriction stating that no shoreline protective device shall be constructed on the parcel, that the landowner shall remove the house and its foundation when bluff retreat reaches the point where the structure is threatened, and that the applicant accepts sole responsibility for the removal of any structural debris resulting from landslides, slope failures, or erosion of the site. Special Condition No. 3. requires recordation of a deed restriction stating that the applicant acknowledges and assumes the inherent and extraordinary risk of developing the blufftop property and waives any claim of liability on the part of the Commission. Special Condition No. 6 requires the applicant to submit, for review and approval of the Executive Director, a monitoring and maintenance program for bluff drainage conditions and bluff edge vegetation. Special Condition No. 6 also requires the applicant to submit a contingency plan that specifies the remedial actions to be taken, should bluff edge monitoring indicate that bluff erosion is occurring faster than anticipated by the geotechnical reports prepared for the development. Thus, the adverse impacts of the project can be mitigated consistent with the provisions of the certified LCP through special conditions. In addition to recommending the specific conditions addressing geologic hazards, staff is recommending that the Commission attach several other special conditions. These conditions include a requirement that the earthen berm be moved out of the minimum 50-foot-wide wetland buffer area required by the LCP to protect environmentally sensitive habitat areas. Other recommended conditions include conditions that are that are similar to conditions the County had attached to its permit to ensure the project's consistency with the certified LCP.

The Motion to adopt the Staff Recommendation of Approval with Conditions is found on page 14.

STAFF NOTES:

1. Appeal Process.

After certification of Local Coastal Programs (LCPs), the Coastal Act provides for limited appeals to the Coastal Commission of certain local government actions on coastal development permits (Coastal Act Section 30603).

Section 30603 states that an action taken by a local government on a coastal development permit application may be appealed to the Commission for certain kinds of developments, including developments located within certain geographic appeal areas, such as those located between the sea and the first public road paralleling the sea or

within one hundred feet of a wetland or stream or three hundred feet of the mean high tide line or inland extent of any beach or top of the seaward face of a coastal bluff.

Furthermore, developments approved by counties may be appealed if they are not designated the "principal permitted use" under the certified LCP. Finally, developments, which constitute major public works or major energy facilities may be appealed, whether approved or denied by the city or county. The grounds for an appeal are limited to an allegation that the development does not conform to the standards set forth in the certified local coastal program or the public access and public recreation policies set forth in the Coastal Act.

The subject development is appealable to the Commission because it is located between the sea and the first public road paralleling the sea and within 300 feet of the mean high tide line and top of the seaward face of a coastal bluff.

Section 30625(b) of the Coastal Act requires the Commission to hear an appeal unless the Commission determines that no substantial issue is raised by the appeal. If the Commission decides to hear arguments and vote on the substantial issue question, proponents and opponents will have three minutes per side to address whether the appeal raises a substantial issue. It takes a majority of Commissioners present to find that no substantial issue is raised. Unless it is determined that there is no substantial issue, the Commission would continue with a full public hearing on the merits of the project, which may occur at a subsequent meeting. If the Commission were to conduct a de novo hearing on the appeal, because the proposed development is between the first road and the sea, the applicable test for the Commission to consider would be whether the development is in conformity with the certified Local Coastal Program and with the public access and public recreation policies of the Coastal Act.

The only persons qualified to testify before the Commission on the substantial issue question are the applicant, the appellant and persons who made their views known before the local government (or their representatives), and the local government. Testimony from other persons regarding substantial issue must be submitted in writing.

2. Filing of Appeal.

The appellants filed appeals (Exhibit 6 and Exhibit 7) to the Commission in a timely manner on December 23, 1999 and on December 30, 1999 within 10 working days of receipt by the Commission on December 23, 1999 of the County's Notice of Final Action.

3. Hearing Opened and Continued.

Pursuant to Section 30621 of the Coastal Act, an appeal hearing must be set within 49 days from the date an appeal of a locally issued coastal development permit is filed. In accordance with the California Code of Regulations, on December 23, 1999, staff

requested all relevant documents and materials regarding the subject permit from the County, to enable staff to analyze the appeal and prepare a recommendation as to whether a substantial issue exists. However, the County permit file information had not yet been requested or received as of the day of the mailing of staff reports to the Commission and interested parties on December 17, 1999. Thus, the requested information was not received in time for the staff to review the information for completeness or prepare a recommendation on the substantial issue question for the Commission's November meeting agenda. Consistent with Section 13112 of the California Code of Regulations, since the Commission did not timely receive the requested documents and materials, the Commission opened and continued the hearing during the January Commission meeting.

PART ONE-SUBSTANTIAL ISSUE

I. STAFF RECOMMENDATION ON SUBSTANTIAL ISSUE

Pursuant to Section 30603(b) of the Coastal Act and as discussed below, the staff recommends that the Commission determine that a substantial issue exists with respect to the grounds on which the appeal has been filed. The proper motion is:

MOTION

I move that the Commission determine that Appeal No. A-1-MEN-99-081 raises No Substantial Issue with respect to the grounds on which the appeal has been filed under Section 30603 of the Coastal Act.

STAFF RECOMMENDATION:

Staff recommends a **NO** vote. Failure of this motion will result in a de novo hearing on the application, and adoption of the following resolution and findings. Passage of this motion will result in a finding of No Substantial Issue and the local action will become final and effective. The motion passes only by an affirmative vote of the majority of the appointed Commissioners present.

RESOLUTION TO FIND SUBSTANTIAL ISSUE:

The Commission hereby finds that Appeal No. A-1-MEN-99-081 presents a substantial issue with respect to the grounds on which the appeal has been filed under Section 30603 of the Coastal Act regarding consistency with the Certified Local Coastal Plan and/or the public access and recreation policies of the Coastal Act.

II. Findings and Declarations.

The Commission hereby finds and declares:

A. APPELLANTS' CONTENTIONS.

The Commission received two appeals of the County of Mendocino's decision to approve the development. One appeal was received from Coastal Commissioners Sara Wan and Mike Reilly, and a second appeal was received from The Friends of Schooner Gulch, Redwood Chapter Sierra Club, and Mendocino & Lake Group Sierra Club. The project as approved by the County consists of the construction of a 17.3-foot-high, 2,642-square-foot single-family residence, with an attached garage, septic system, stormwater collection and distribution system, earthen berm, generator pad, and propane tank. The appellants' contentions are summarized below, and the full texts of the contentions are included as Exhibit No. 6 and Exhibit No. 7.

Both of the appellant's contentions involve inconsistency with the County's LCP policies regarding geologic hazards and seawalls, as described below. Coastal Commissioners Sara Wan and Mike Rielly further assert inconsistencies with the County's LCP policies regarding geologic hazards and site drainage, as described below.

1. Geologic hazards and seawalls

Both groups of appellants contend that the project, as approved by the County, raises a substantial issue of whether the proposed residence, located 25 feet from the bluff edge, would create a bluff retreat hazard and ultimately require the construction of a seawall and that the project is inconsistent with LUP policies 3.5-1, 3.4-7, 3.4-8, 3.4-9, 3.4-10, 3.4-12 and Zoning Code Sections 20.500.010, 20.500.015 and 20.500.020. The appellants contend that future seawalls should be prohibited to protect the visual and physical integrity of the natural bluff.

2. Geologic hazards and drainage

Commissioners Sara Wan and Mike Rielly contend that the 100-foot-long earthen-berm included in the approved development could cause a change in drainage patterns on the subject site that could lead to accelerated erosion of the bluff face or to the instability of the bluff itself. Thus, they assert that the project as approved, raises a substantial issue of conformance with LUP Section 3.4-9 and Zoning Code Section 20.500.020(B), which state that blufftop developments shall be constructed so as to ensure that surface and subsurface drainage does not contribute to the erosion of the bluff face or to the instability of the bluff itself.

B. LOCAL GOVERNMENT ACTION.

On September 24, 1999, the Mendocino County Coastal Permit Administrator approved the project with conditions (CDP #102-98) and denied a variance to the rear-yard setback (CDV #17-98). The approved permit, as recommended by County staff, contained seven special conditions. Special Condition #7 was a modified version of a special condition that the Commission imposed on a similar project in the area (Klute Permit No. A-1-MEN-99-26). Special Condition #7 required, in part, that the landowner record a deed restriction stating that he assume the inherent and extraordinary risk of erosion and geologic hazard associated with the developing the blufftop and that no future seawall or shoreline protective devices can ever be constructed to protect the approved development. However, the permit applicant appealed the approved coastal development permit to the County Board of supervisors, in part, because he opposed Special Condition #7 that was adopted with the County's permit.

On December 13, 1999 Commission staff faxed a letter to the Board of Supervisors requesting that they uphold the County Coastal Permit Administrator's decision and include Special Condition #7 in the coastal development permit. However, later that day on December 13, 1999 the County Board of Supervisors approved the coastal development permit without Special Condition #7. The Board of Supervisors ultimately denied the requested variance to the 20-foot rear-yard setback. The County then issued a Notice of Final Action, which was received by Commission staff on December 16, 1999 (Exhibit 5).

The County attached to its coastal permit a number of special conditions, including: (1) a requirement that prior to issuance of the CDP, the applicant shall submit for review and approval, color samples of all exterior finishes; (2) a requirement that prior to issuance of the CDP, the applicant shall submit for review and approval, revised site plans, floor plans, and building elevations reflecting the elimination of the portion of the development within the side-yard setback; (3) a requirement that the project will be conducted in accordance with the recommendations of the geotechnical reports prepared for the development, and a requirement that prior to issuance of the CDP, the applicant shall submit for review and approval, a monitoring program for the bluff drainage conditions, and a bluff-edge-vegetation maintenance plan that includes utilization of drip irrigation during the summer months; (4) a requirement that prior to any site development activities, temporary protective fencing be installed at the perimeter of the wetland; (5) A requirement that after the construction of the drainage system, there shall be no mowing, ornamental landscaping or other disturbance within 50 feet of the wetland; and (6) a requirement that all exterior finishes and building materials shall match those specified in the coastal development application.

C. PROJECT AND SITE DESCRIPTION.

The approved development consists of a 17.3-foot-high, 2,642-square-foot single-family residence, with an attached garage, septic system, stormwater collection and distribution system, earthen berm, generator pad, 25-foot-tall flagpole, and propane tank.

The site is located on a blufftop approximately 1 ½ miles south of Anchor Bay, and ½ mile south of Getchell gulch on the west side of Highway One. The site is situated on top of a small peninsula that juts southwesterly into the Pacific Ocean. The sides of the peninsula are composed of steep cliffs of up to 80 feet in height. The top of the peninsula is gently sloping toward the west and the parcel is largely undeveloped, except for a gravel driveway leading from Highway One to the building site. A small 0.07-acre wetland is located in the center of the parcel, landward of the approved development.

The parcel is not located in a designated highly scenic area and the proposed residence would be well within the visual character of the surrounding area, as the subject parcel is located in a rural residential area consisting of existing blufftop homes. The site contains numerous Monterey Pines along the eastern parcel boundary, which borders Highway One, and mature woody shrubs are densely dispersed throughout much of the site. The existing onsite vegetation largely obscures any views to and along the coast, from Highway One, and intervening vegetation would help to shroud the proposed development from view of the highway.

The applicant had originally proposed to construct a series of subsurface stormwater distribution leaching chambers around the wetland, and to locate the flagpole and propane tank in the southeastern portion of the parcel near Highway One. However, prior to the County's initial approval of the project, the applicant modified his application to the County, and in doing so, he modified his project to relocate the propane tank and flagpole just to the east of the proposed garage, to reduce the visual impact of project. The applicant also changed the proposed project to replace the stormwater distribution vaults with high volume sprinkler heads, in an effort to minimize disturbance to the wetland buffer.

D. SUBSTANTIAL ISSUE ANALYSIS.

Section 30603(b)(1) of the Coastal Act states:

The grounds for an appeal pursuant to subdivision (a) shall be limited to an allegation that the development does not conform to the standards set forth in the certified local coastal program or the public access policies set forth in this division.

Appellants' Contentions That Raise a Substantial Issue.

Both of the contentions raised in the appeals present potentially valid grounds for appeal in that they allege the project's inconsistency with policies of the certified LCP. In both cases, the Commission finds that a substantial issue is raised.

Coastal Act Section 30625(b) states that the Commission shall hear an appeal unless it determines:

With respect to appeals to the commission after certification of a local coastal program, that no substantial issue exists with respect to the grounds on which an appeal has been filed pursuant to Section 30603.

The term "substantial issue" is not defined in the Coastal Act or its implementing regulations. The Commission's regulations indicate simply that the Commission will hear an appeal unless it "finds that the appeal raises no significant question." (Cal. Code Regs., tit. 14, section 13115(b).) In previous decisions on appeals, the Commission has been guided by the following factors:

1. The degree of factual and legal support for the local government's decision that the development is consistent or inconsistent with the certified LCP and with the public access policies of the Coastal Act;
2. The extent and scope of the development as approved or denied by the local government;
3. The significance of the coastal resources affected by the decision;
4. The precedential value of the local government's decision for future interpretations of its LCP; and
5. Whether the appeal raises only local issues, or those of regional or statewide significance.

Even when the Commission chooses not to hear an appeal, appellants nevertheless may obtain judicial review of the local government's coastal permit decision by filing petition for a writ of mandate pursuant to Code of Civil Procedure, section 1094.5.

In this case, for the reasons discussed further below, the Commission exercises its discretion and determines that the development as approved by the County presents a substantial issue with regard to both of the appellant's contentions: geologic hazards and seawalls, and geologic hazards and drainage.

a. Geologic Hazards and Seawalls

The appellants contend that the proposed project raises a substantial issue of conformance with the Mendocino County LUP policies 3.5-1, 3.4-7, 3.4-8, 3.4-9, 3.4-10, 3.4-12, and Zoning Code Sections 20.500.010, 20.500.015, 20.500.020, regarding geologic hazards and seawalls, as they pertain to the protection of the physical and visual integrity of coastal resources. Specifically, the appellants assert that bluff retreat is a complex process that involves the dynamic interaction of many variables and consequently, the rate of bluff retreat can not be absolutely predicted. The appellants further contend that eventually bluff erosion/retreat will occur and that there is no mechanism in place to ensure that shoreline protective devices wont be constructed in the future should unexpected bluff retreat threaten the approved structure.

LCP Policies:

LUP Policy 3.4-7 states that:

The County shall require that new structures be set back a sufficient distance from the edges of bluffs to ensure their safety from bluff erosion and cliff retreat during their economic life spans (75 years). Setbacks shall be of sufficient distance to eliminate the need for shoreline protective works. Adequate setback distances will be determined from information derived from the required geologic investigation and from the following setback formula:

$$\text{Setback (meters)} = \text{Structure life (years)} \times \text{Retreat rate (meters/year)}$$

The retreat rate shall be determined from historical observation (e.g., aerial photographs) and/or from a complete geotechnical investigation.

All grading specifications and techniques will follow the recommendations cited in the Uniform Building Code or the engineering geologist's report.

This language is reiterated in Zoning Code Section 20.500.020(B).

LUP Section 3.4-8 states that:

Property owners should maintain drought-tolerant vegetation within the required blufftop setback. The County shall permit grading necessary to establish proper drainage or to install landscaping and minor improvements in the blufftop setback.

LUP 3.4-9 states that:

Any development landward of the blufftop setback shall be constructed so as to ensure that surface and subsurface drainage does not contribute to the erosion of the bluff face or to the instability of the bluff itself.

Zoning Code Section 20.500.010 states that development shall:

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

Zoning Code Section 20.500.020(B) states that *"Construction landward of the setback shall not contribute to erosion of the bluff face or to instability of the bluff."*

LUP Policy 3.4-12 states that *"No development shall be permitted on the bluff face because of the fragility of this environment and the potential resultant increase in bluff and beach erosion due to poorly-sited development."*

LUP Policy 3.4-12 and Zoning Code Section 20.500.020(E)(1) state that *"Seawalls, breakwaters, revetments, groins, harbor channels and other structures altering natural shoreline processes or retaining walls shall not be permitted unless judged necessary for the protection of existing development, public beaches or coastal dependent uses."*

LUP Policy 3.5-1 states in applicable part:

The scenic and visual qualities of Mendocino County coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas and, where feasible, to restore and enhance visual quality in visually degraded areas.

Discussion:

As mentioned above, the coastal development permit, originally approved by the Mendocino County Coastal Permit Administrator, contained a special condition requiring the applicant to record a deed restriction stating that he assume the inherent and

extraordinary risk of erosion and geologic hazard associated with the developing the blufftop and that no future seawall or shoreline protective devices could ever be constructed to protect the approved development. The special condition also required the landowner to remove the house and its foundation when bluff retreat reaches the point where the structure is threatened. However, the applicant appealed the approved coastal development permit to the Mendocino County Board of supervisors, in part, because he objected to this special condition. On December 13, 1999 the County Board of Supervisors acted on the appeal in a manner that approved the coastal development permit without the "assumption of risk/no future seawall" condition.

The Klute residence (Permit No. A-1-MEN-99-26) is a similar blufftop development located south of the proposed DeMartini project near Iversen Point in southern Mendocino County. The Klute project was also appealed to the Commission, largely in part, due to similar concerns that the project would ultimately require a seawall at some point in the future and would therefore be inconsistent with the County's certified LCP, which prohibits seawalls. In the case of Klute the Commission found that a similar "assumption of risk/no future seawall" special condition was needed to ensure that the development would be consistent with the geologic hazard policies contained in the County's certified LCP. The Commission ultimately approved the Klute project in a de novo hearing, with the "assumption of risk/no future seawall" special condition, on July 16, 1999.

The geotechnical investigation report initially prepared and submitted for the project by Field Engineering Associates, dated June 9, 1986, concludes that the structure could be placed as close as 25 feet from the bluff edge, provided that it is constructed in conformance with the report recommendations. The Field Engineering Associates report also states that the 25-foot setback would be adequate as long as all foundations extend below a $\frac{3}{4}H:1V$ line from the toe of the slope to the top of the bluff.

An update of the original geotechnical investigation performed by BACE Geotechnical, dated August 22, 1994, concluded that *"the site remains suitable for a single family dwelling. A relatively safe setback of 25 feet (in conjunction with a drilled pier foundation) would be based upon a more than worst case erosion rate of one inch per year for 75 years."* The BACE report bases this conclusion in part on a review of aerial photographs taken in 1963 and 1981, and in part on field measurements comparing site conditions in 1986 to more current site conditions. However, the BACE report does not indicate exactly how much bluff retreat actually occurred during any given time period, and the report does not explicitly state how the 1-inch per year rate was determined.

Additionally, the original geotechnical report, prepared by Field Engineering Associates, mentions that a slough loss of as much as about three feet occurred in the southeasterly portion of the bluff between 1971 and 1985. Photographic analysis performed by BACE geotechnical also verifies that sloughing did in fact occur during those years. The BACE geotechnical report also states that this portion of the bluff presently appears to be about

the same as in 1986 (no evidence of sloughing). However, it is not clear whether or not the 3 feet of blufftop sloughing was taken into consideration in the geotechnical analysis that predicted a worst case erosion rate of 1-inch per year.

The BACE geotechnical report goes on to state that their geological and engineering services and review of the proposed development was performed in accordance with the usual and current standards of the profession, as they relate to this and similar localities. *"No other warranty, expressed or implied, is provided as to the conclusions and professional advice presented in the report."* In the Commission's experience, geologists have no way of absolutely predicting if or when bluff erosion on a particular site will take place, and cannot predict if or when a house or property may become endangered. Geologic hazards are episodic, and bluffs that may seem stable now may not be so in the future. The Commission has approved some blufftop residences based on geotechnical analyses asserting that the structures would be safe over their economic lifespans, only to find that unexpected bluff retreat did later occur to a degree that prompted the applicants to apply for a new permit for a seawall within a decade of the original approval of the house.

Based on the information in the record before the County, it is not entirely clear whether the house as approved would be set back far enough from the bluff edge to absolutely ensure the safety of the structures from bluff erosion and cliff retreat during the economic lifespan of the project, as required by LUP policy 3.4-7. If not, a protective device might become necessary to protect the structures, contrary to the provisions of both LUP policy 3.4-7 and Zoning Code Section 20.500.010, which states that development shall not "in any way require the construction of protective devices ..." Such protective devices, would not minimize the alteration of natural landforms or be visually compatible with the character of the natural bluff face. In addition, Mendocino County contains many coastal parks and beaches, both state and local, in areas where residential development pressure is growing and more residential development is being proposed and constructed on marginally stable blufftop parcels. The outcome of the review of this coastal development permit application will have precedential significance for the County's review of other future residential developments on blufftop parcels, and will have precedential significance regarding the potential need for seawalls and/or retaining walls on vacant lots near the subject site. The precedence of the decision is particularly great given that the Board of Supervisors action on appeal to delete the seawall condition occurred in the first instance where the Coastal Zoning Administrator had attached such a seawall condition in a permit for a bluff top residence. Thus the Commission finds that the project as approved by the County raises a substantial issue with respect to conformance of the approved project with the LCP policies regarding geologic hazards and seawalls.

b. Geologic Hazards and Drainage

The appellants (Coastal Commissioners Sara Wan and Mike Rielly) contend that the project raises a substantial issue of conformance with Mendocino County LUP policy

3.4-9 and Zoning Code Section 20.500.020(B) because the approved development includes the construction of a 100-foot-long earthen berm across the subject parcel, that could effectively concentrate surface water runoff and direct it toward the bluff edge eventually leading to increased bluff erosion.

LCP Policies:

LUP Section 3.4-9 states that:

Any development landward of the blufftop setback shall be constructed so as to ensure that surface and subsurface drainage does not contribute to the erosion of the bluff face or to the instability of the bluff itself.

Zoning Code Section 20.500.020(B) (3) states that:

Construction landward of the setback shall not contribute to erosion of the bluff face or to instability of the bluff.

Discussion:

The approved development includes an elaborate stormwater collection and conveyance system designed to attenuate any excess stormwater that could be generated from the new impervious surfaces that will be created by the development. The stormwater distribution system includes a collection system, a 1,200-gallon storage vault, a pump, and a sprinkler dissipation network. The storm water distribution system will collect surface runoff and dissipate it inland of the proposed residence, via the sprinkler network. The approved project also includes a 100-foot-long, 18-inch-high earthen berm that runs in an approximate east west alignment across the subject parcel. The berm is intended to intercept and divert surface water flows away from the approved residence. However, the berm will intercept and convey both natural surface water flows and augmented flows from the sprinkler distribution system. This diversion could concentrate surface runoff, direct it toward the bluff edge, and eventually lead to increased bluff erosion or the instability of the bluff itself.

The Notice of Final Action prepared by Mendocino County contained a special condition requiring the permittee to submit a monitoring program for the bluff drainage conditions, and a bluff-edge-vegetation maintenance plan that includes utilization of drip irrigation during the summer months. Apparently this special condition is intended to address concerns related to site drainage conditions, including the potential effects of the berm. However, it was not stated in the County's Findings of Approval for the coastal development permit why the special condition was included or how the special condition would ensure that surface and subsurface drainage redirected by the berm would not contribute to the erosion of the bluff face or to the instability of the bluff itself, inconsistent with LUP Policy 3.4-9 and Zoning Code Section 20.500.020(B)(3).

Therefore, there is not a high degree of factual or legal support for the County's decision to approve the project as being consistent with the certified LCP.

Thus the Commission finds that the project as approved by the county raises a substantial issue with respect to conformance of the approved project with the LCP policies regarding geologic hazards and drainage.

Conclusion.

The Commission finds that, as discussed above, the appeal raises a substantial issue with respect to the conformance of the approved project with the policies of the LCP concerned with geologic hazards and drainage, and with geologic hazards and seawalls.

PART TWO-DE NOVO ACTION ON APPEAL

Notes

1. Procedure.

If the Commission finds that a locally approved coastal development permit raises a Substantial Issue with respect to the policies of the certified LCP, the local government's approval no longer governs, and the Commission must consider the merits of the project with the LCP de novo. The Commission may approve, approve with conditions (including conditions different than those imposed by the County), or deny the application.

2. Incorporation of Substantial Issue Findings.

The Commission hereby incorporates by reference the Substantial Issue Findings above.

I. MOTION, STAFF RECOMMENDATION DE NOVO, AND RESOLUTION:

1. MOTION:

I move that the Commission approve Coastal Development Permit No. A-1-MEN-99-081 pursuant to the staff recommendation.

2. 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.

2. RESOLUTION TO APPROVE PERMIT:

The Commission hereby approves a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the certified County of Mendocino LCP, is located between the sea and the nearest public road to the sea and is in conformance with the public access and public recreation policies of Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. Standard Conditions: See attached.

III. Special Conditions:

1. Future Development Deed Restriction.

A. This permit is only for the development described in coastal development permit No. A-MEN-99-081. Pursuant to Title 14 California Code of Regulations section 13250(b)(6), the exemptions otherwise provided in Public Resources Code section 30610(a) shall not apply to the parcel. Accordingly, any future improvements to the single family house authorized by this permit, including but not limited to repair and maintenance identified as requiring a permit in Public Resources section 30610(d) and Title 14 California Code of Regulations sections 13252(a)-(b), shall require an amendment to Permit No. A-MEN-99-081 from the Commission or from the applicable certified local government.

B. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall execute and record a deed restriction in a form and content acceptable to the Executive Director, reflecting the above restrictions on development. The deed restriction shall include legal descriptions of the applicant's entire parcel. The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Commission amendment to this coastal development permit.

2. No Future Bluff or Shoreline Protective Device

A(1) By acceptance of this permit, the applicant agrees, on behalf himself and all successors and assigns, that no bluff or shoreline protective device(s) shall ever be constructed to protect the development approved pursuant to Coastal Development Permit No. A-1-MEN-99-081, including, but not limited to, the residence, foundations, decks, driveways, stormwater distribution system, or the septic system and any other future improvements in the event that the development is threatened with damage or destruction from waves, erosion, storm conditions, bluff retreat, landslides, or other natural hazards in the future. By acceptance of this permit, the applicant hereby waives, on behalf of himself and all successors and assigns, any rights to construct such devices that may exist under Public Resources Code Section 30235 or under Mendocino County LUP Policy 3.4-12 and Zoning Code Section 20.500.020(E)(1).

A(2) By acceptance of this permit, the applicant further agrees, on behalf of himself and all successors and assigns, that the landowner shall remove the development authorized by this permit, including the residence, garage, foundations, stormwater distribution system and septic system, if any government agency has ordered that the structures are not to be occupied due to any of the hazards identified above. In the event that portions of the development fall to the beach

before they are removed, the landowner shall remove all recoverable debris associated with the development from the beach and ocean and lawfully dispose of the material in an approved disposal site. Such removal shall require a coastal development permit.

- A(3) In the event the edge of the bluff recedes to within 10 feet of the principal residence but no government agency has ordered that the structures not be occupied, a geotechnical investigation shall be prepared by a licensed coastal engineer and geologist retained by the applicant, that addresses whether any portions of the residence are threatened by wave, erosion, storm conditions, or other natural hazards. The report shall identify all those immediate or potential future measures that could stabilize the principal residence without shore or bluff protection, including but not limited to removal or relocation of portions of the residence. If the geotechnical report concludes that the residence or any portion of the residence is unsafe for occupancy, the permittee shall, in accordance with a coastal development permit remove the threatened portion of the structure.

- B. **PRIOR TO THE ISSUANCE OF COASTAL DEVELOPMENT PERMIT NO. A-1-MEN-99-081**, the applicant shall execute and record a deed restriction, in a form and content acceptable to the Executive Director, which reflects the above restrictions on development. The deed restriction shall include a legal description of the applicant's entire parcel. The deed restriction shall run with the land binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Commission amendment to this coastal development permit.

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

- A. By acceptance of this permit, the applicant, on behalf of (1) himself; (2) his successors and assigns and (3) any other holder of the possessory interest in the development authorized by this permit, acknowledges and agrees (i) that the site may be subject to hazards from waves, storm waves, flooding and erosion; (ii) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards; and (v) to agree to include a provision in any subsequent sublease or assignment of the development authorized by this permit requiring the sublessee or assignee to submit a written agreement to the Commission, for the review and approval of the Executive Director, incorporating all of the foregoing restrictions identified in (i) through (iv).

- B. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the landowner shall execute and record a deed restriction, in a form and content acceptable to the Executive Director incorporating all of the above terms of subsection A of this condition. The restriction shall include a legal description of the landowner's entire parcel. The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Commission amendment to this coastal development permit.

4. Conformance with Rear Yard Setback

- A. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit, for the Mendocino County Coastal Permit Administrator's and the Executive Director's review and approval, final site plans, floor plans, and building elevations reflecting the elimination of the portion of the development within the rear yard setback.
- B. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved 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. Conformance of the Design and Construction Plans to Geotechnical Report

- A. All final design and construction plans, including foundations, grading and drainage plans, shall be consistent with the recommendations contained in the geotechnical report dated June 9, 1986 prepared by Field Engineering Associates, the supplemental geotechnical report dated August 22, 1994, prepared by BACE geotechnical and addendum dated September 1, 1999. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit, for the Executive Director's review and approval, evidence that an appropriate licensed professional has reviewed and approved all final design and construction plans and has certified that each of those plans is consistent with all of the recommendations specified in the above-referenced geotechnical reports approved by the California Coastal Commission for the project site.
- B. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved 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.

6. Bluff Edge Monitoring and Vegetation Maintenance Program

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for the Executive Director's review and approval, a final detailed monitoring and maintenance program designed by a qualified professional for monitoring and maintenance of the bluff drainage conditions and bluff edge vegetation. The bluff drainage and vegetation, monitoring and maintenance program shall at a minimum include the following:

1. A bluff edge vegetation maintenance plan that utilizes drip irrigation in the summer months.
 2. Detailed provisions for monitoring and evaluating bluff drainage conditions on an annual basis.
 3. Provisions to ensure that remediation will occur within 90 days of a determination by the permittee or the Executive Director that monitoring results indicate that bluff retreat, erosion, or sloughing is occurring or has occurred faster than anticipated by the geotechnical reports prepared for the development.
 4. Provisions for monitoring and remediation in accordance with the approved final mitigation and maintenance program for a period of 5 years.
 5. Provisions for submission of annual reports of monitoring results to the Executive Director for the duration of the required monitoring period, beginning the first year after the commencement of construction of the development authorized herein. Each report shall include copies of all previous reports as appendices. Each report shall also include a "Performance Evaluation" section where information and results from the monitoring program are used to evaluate the bluff drainage conditions in relation to the performance standards. Each report must address all of the monitoring data collected since the monitoring program was initiated.
- B.** If any of the annual reports indicate that bluff retreat, erosion, or sloughing is occurring or has occurred faster than anticipated by the geotechnical reports prepared for the development, the applicant shall submit a detailed remediation plan that specifies the remedial actions to be taken. The remediation plan, if necessary, shall be processed as an amendment to this coastal development permit.
- C.** The permittee shall monitor and maintain bluff drainage conditions in accordance with the approved program. Any proposed changes to the approved program shall be reported to the Executive Director. If the Executive Director determines that a

proposed change is significant, such proposed changes shall not occur unless approved by the Coastal Commission through an amendment to this coastal development permit.

7. Design Restrictions

All exterior siding and visible exterior components of the structures authorized pursuant to Coastal Development Permit A-1-MEN-99-081 shall be of natural or natural-appearing materials of dark earthtone colors, only, and the roof of any structure shall also be of dark earthtone color and shall be of natural-appearing material. In addition, all exterior materials, including the roofing materials and windows, shall be non-reflective to minimize glare. Finally, all exterior lights, including lights attached to the outside of any structures, shall be low-wattage, non-reflective and have a directional cast downward.

8. Wetland Protection

- A. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT,** the applicant shall submit, for the Executive Director's review and approval, final site plans reflecting (i) the repositioning of the 100-foot-long earthen berm outside of the 50-foot-wide environmentally sensitive habitat area buffer; and (ii) all of the recommendations and mitigation measures contained in the Jurisdictional Wetland Delineation report prepared by Wetland Research Associates, dated September 1997, and the supplemental correspondence from Wetland Research Associates, dated August 24, 1999.
- B. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved 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.
- C. **PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES,** the applicant shall install a solid barrier (fence) around the perimeter of the wetland area. No disturbance to the wetland shall occur and the barrier fence shall be capable of preventing workers, building materials, and waste material from entering the wetland area. The barrier shall remain in place until construction activities are complete and the site has been stabilized.

9. Area of Archaeological Significance

- A. If an area of cultural deposits is discovered during the course of the project:
- (i) All construction shall cease and shall not recommence except as provided in subsection (b) hereof; and

- (ii) Within 90 days after the date of discovery of such deposits, the applicant shall submit for the review and approval of the Executive Director, an Archaeological Plan, prepared by a qualified professional, that describes the extent of such resources present and the actions necessary to protect any onsite Archaeological resources.
- (iii) If the Executive Director approves the Archaeological Plan and determines that the Archaeological Plan's recommended changes to the proposed development or mitigation measures are de minimis in nature and scope, construction may recommence after the Executive Director receives evidence of recordation of the deed restriction required below
- (iv) If the Executive Director approves the Supplementary Archaeological Plan but determines that the changes therein are not de minimis, construction may not recommence until after an amendment to this permit is approved by the Commission and the Executive Director receives evidence of recordation of the deed restriction required below.
- (v) Within 90 days after the date of discovery of such deposits, the applicant shall provide evidence to the Executive Director of an execution and recordation of a deed restriction, in a form and content acceptable to the Executive Director, stating that, in order to protect archaeological resources, development can only be undertaken consistent with the provisions of the Archaeological Plan approved by the Executive Director.

The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Commission amendment to this coastal development permit approved by the Coastal Commission.

IV. FINDINGS AND DECLARATIONS

1. Project and Site Description:

As discussed in Finding C of the Substantial Issue portion of this report, the proposed development consists of a 17.3-foot-high, 2,642-square-foot single-family residence, with an attached garage, septic system, stormwater collection and distribution system, earthen berm, generator pad, and propane tank.

Finding C of the Substantial Issue portion of this report is hereby incorporated by reference.

2. Planning and Locating New Development

Policy 3.9-1 of the Mendocino County Land Use Plan states that new development shall be located within or near existing developed areas able to accommodate it or in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. The intent of this policy is to channel development toward more urbanized areas where services are provided and potential impacts to resources are minimized.

Policy 3.8-1 states that Highway 1 capacity, availability of water and sewage disposal system and other know planning factors shall be considered when considering applications for development permits.

The subject property is zoned in the County's LCP as Rural Residential-5 acre minimum [Rural Residential-2 acre minimum conditional with proof of water] (RR:L-5 [RR-2]), meaning that there may be one parcel for every five acres, or one parcel for every 2 acres with proof of water. The subject parcel, which is approximately one acre in size, is a legal, non-conforming lot. Single family residences are a principally permitted use in the Rural Residential zoning district. Setbacks for the subject parcel are 20 feet to the front and rear yards, and 6 feet on the side yards, pursuant to Sections 20.376.030 and 20.376.0350 of the Mendocino County Zoning Code. However, as proposed, a portion of the residence encroaches into the 20-foot rear yard setback. To ensure that the proposed development conforms to the required setbacks, the Commission attaches Special Condition No. 4, which requires the applicant to submit, for review and approval of the Executive Director, revised site plans, floor plans, and building elevations reflecting the elimination of the portion of the development within the rear yard setback. Special Condition No. 4 also requires the applicant to construct the development in accordance to the final revised plans.

The subject parcel will be served by an off-site municipal water supply system. Sewage will be processed by a proposed septic system that has been approved by the Mendocino Department of Environmental Health.

The Commission finds, therefore, that the proposed development, as conditioned, is consistent with LUP Policies 3.8-1 and 3.9-1, and with Zoning Code Sections 20.376.030 and 20.376.0350, because Special Condition No. 4 of this permit will ensure that development will conform to the required setbacks, and because there will be adequate services on the site to serve the proposed development.

3. Geologic Hazards and Drainage:

LUP Policy 3.4-9 states that:

Any development landward of the blufftop setback shall be constructed so as to ensure that surface and subsurface drainage does not contribute to the erosion of the bluff face or to the instability of the bluff itself.

Zoning Code Section 20.500.020(B)(3) states that:

Construction landward of the setback shall not contribute to erosion of the bluff face or to instability of the bluff.

The proposed development includes the construction of a 100-foot-long, 18-inch-high earthen berm in an approximate east to west alignment across the subject parcel. Apparently the berm is intended to protect the residence from potential flooding from a small seasonal wetland area located inland of the proposed residence. The earthen berm will intercept surface water runoff and direct it to the southeastern portion of the blufftop, potentially exacerbating bluff erosion.

After reviewing all of the evidence pertaining to drainage and geologic hazards contained in the local record, the Commission finds that, as conditioned, the project will not contribute to the erosion of the bluff face or to the instability of the bluff itself.

The proposed 100-foot-long earthen berm and the other site grading and drainage features were evaluated in a supplemental geotechnical review prepared by BACE geotechnical, dated September 1, 1999. BACE Geotechnical concluded that the proposed drainage improvements (including the berm) will have minimal adverse impact on the bluff stability. The report bases this conclusion on the site conditions, the geologist's observations, and the relatively low bluff retreat rate on the site. The supplemental geotechnical review goes on to state that monitoring of the bluff drainage conditions will be necessary once the project is complete, and that maintenance of bluff edge vegetation, especially when augmented with drip irrigation, is probably the best erosion control method at the site.

Given the assurances of the geotechnical evaluation that the proposed drainage improvements will have minimal adverse impact on the bluff stability, the Commission finds that development of the berm and the resulting rerouting of the drainage from the parcel is consistent with the provisions of LUP Policy 3.4-9 and Zoning Code Section 20.500.020(B)(3) that proposed development shall be constructed so as to ensure that surface and subsurface drainage does not contribute to the erosion of the bluff face or to instability of the bluff. However, as recommended by the applicant's geologist and to reduce the potential impacts of the proposed development on geologic hazards associated with concentrated surface water flows, the Commission attaches Special Condition No. 6, which requires the applicant to submit for review and approval of the Executive Director,

a monitoring and maintenance program providing for annual monitoring of bluff drainage conditions and bluff edge vegetation. Special Condition No. 6, also requires the applicant to submit a contingency plan that specifies the remedial actions to be taken, should bluff monitoring indicate that bluff erosion is occurring faster than anticipated by the geotechnical reports prepared for the development. The condition provides that the Executive Director shall determine whether any such remediation measures would require an amendment to the permit.

The Commission finds that the proposed development, as conditioned, is consistent with LUP Policy 3.4-9, and with Zoning Code Section 20.500.020(B)(3), because Special Condition No. 6 of this permit will ensure that development will not create a geologic hazard associated the site drainage modifications.

4. Geologic Hazards and Seawalls:

LUP Policy 3.4-7 states that:

The County shall require that new structures be set back a sufficient distance from the edges of bluffs to ensure their safety from bluff erosion and cliff retreat during their economic life spans (75 years). Setbacks shall be of sufficient distance to eliminate the need for shoreline protective works. Adequate setback distances will be determined from information derived from the required geologic investigation and from the following setback formula:

$$\text{Setback (meters)} = \text{Structure life (years)} \times \text{Retreat rate (meters/year)}$$

The retreat rate shall be determined from historical observation (e.g., aerial photographs) and/or from a complete geotechnical investigation.

All grading specifications and techniques will follow the recommendations cited in the Uniform Building Code or the engineering geologist's report.

This language is reiterated in Zoning Code Section 20.500.020(B).

LUP Section 3.4-8 states that:

Property owners should maintain drought-tolerant vegetation within the required blufftop setback. The County shall permit grading necessary to establish proper drainage or to install landscaping and minor improvements in the blufftop setback.

LUP 3.4-9 states that:

Any development landward of the blufftop setback shall be constructed so as to ensure that surface and subsurface drainage does not contribute to the erosion of the bluff face or to the instability of the bluff itself.

Zoning Code Section 20.500.010 states that development shall:

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

Zoning Code Section 20.500.020(B) states that

Construction landward of the setback shall not contribute to erosion of the bluff face or to instability of the bluff.

LCP Policy 3.4-12 and Zoning Code Section 20.500.020(E)(1) state that

Seawalls, breakwaters, revetments, groins, harbor channels and other structures altering natural shoreline processes or retaining walls shall not be permitted unless judged necessary for the protection of existing development, public beaches or coastal dependent uses.

The geotechnical investigation report initially prepared and submitted for the project by Field Engineering Associates, dated June 9, 1986, concludes that the structure could be placed as close as 25 feet from the bluff edge, provided that it is constructed in conformance with the report recommendations. An update of the original geotechnical investigation performed by BACE Geotechnical, dated August 22, 1994, concluded that the site was still suitable for a single-family-residence with a relatively safe bluff setback of 25 feet (in conjunction with a drilled pier foundation). The geotechnical report goes on to state that the 25-foot setback would be based on a more than worst case erosion rate of 1 inch per year for 75 years, multiplied by a safety factor of four.

The proposed development is sited 25 feet from the bluff edge, the minimum distance recommended by the geotechnical reports. The Commission notes that it would not be practical to provide an appreciably larger setback from the bluff edge for the particular size and design of the house proposed given the need to accommodate a septic system and to protect the wetland on the property. As discussed in Finding 6 below, any

proposed development on the parcel must be located at least 50 feet away from the edge of the wetland to meet LCP requirements. The only site on the parcel outside of the required buffer area large enough to accommodate a house is the location where the applicant proposes to build. The area is further constrained by the need to maintain a 20-foot rear yard setback from the parcel boundary adjoining the parcel to the northwest. As shown in Exhibit 3, the proposed house and septic system occupies all the available space at this site.

To ensure that the project will not create any geologic hazards, the Commission has attached to the permit several Special Conditions. Special Condition No. 5 requires submittal of final foundation and site drainage plans that incorporate all recommendations of the geotechnical reports and addendum, intended to avoid creating a geologic hazard. Special Condition No. 5 also requires development to proceed consistent with the certified plans. This condition reiterates a similar County condition. Special Condition No. 1 requires recordation of a deed restriction stating that all future development on the subject parcel that might otherwise be exempt from coastal permit requirements requires an amendment or coastal development permit. This condition will allow future development to be reviewed to ensure that the project will not be sited where it might result in a geologic hazard.

The Commission also attaches Special Condition No. 2, which requires recordation of a deed restriction stating that no shoreline protective device shall be constructed on the parcel and that the landowner shall provide a geotechnical investigation and remove the house and its foundation when bluff retreat reaches the point where the structure is threatened, and that the applicant accepts sole responsibility for the removal of any structural debris resulting from landslides, slope failures, or erosion of the site. Additionally, the Commission attaches Special Condition No. 3, which requires recordation of a deed restriction whereby the landowner assumes the risks of extraordinary erosion and geologic hazards of the property and waives any claim of liability on the part of the Commission.

These deed restriction requirements are consistent with LUP policy 3.4-7 and Section 20.500.010 of the Mendocino County Coastal Zoning Ordinance, which states that new development shall minimize risk to life and property in areas of high geologic, flood, and fire hazard, assure structural integrity and stability, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding areas, nor in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs. The Commission finds that the proposed development could not be approved as being consistent with Zoning Code Section 20.500.010 if projected bluff retreat would affect the proposed house and necessitate construction of a seawall to protect it.

In addition, LUP Policy 3.4-12 and Zoning Code Section 20.500.020(E)(1) allow the construction of shoreline protective devices only for the protection of existing development. The construction of a shoreline protective device to protect new residential

development is not permitted by the LCP. In addition, as discussed further below, the construction of a protective device to protect new residential development would also conflict with the visual policies of the certified LCP.

The applicant is proposing to construct a new house. The new development can only be found consistent with the above-referenced provisions if a protective device will not be needed in the future. The applicant has submitted information from a geologist which states that the proposed development will not require any devices to protect the proposed development during its economic life. If not for the information provided by the applicant that the site is safe for development, the Commission could conclude that the site is safe for development without the need for the construction of protective devices.

However, it has been the experience of the Commission that in some instances, even when a thorough professional geotechnical analysis of a site has concluded that a proposed development will be safe from bluff retreat hazards, unexpected bluff retreat episodes that threaten development during the life of the structure sometimes still do occur. Examples of this situation include:

- The Kavich Home at 176 Roundhouse Creek Road in the Big Lagoon Area north of Trinidad (Humboldt County). In 1989 the Commission approved the construction of a new house on a vacant blufftop parcel (Permit 1-87-230). Based on the geotechnical report prepared for the project it was estimated that bluff retreat would jeopardize the approved structure in about 40 to 50 years. In 1999 the owners applied for a coastal development permit to move the approved house from the blufftop parcel to a landward parcel because the house was threatened by 40 to 60 feet of unexpected bluff retreat that occurred during a 1998 El Nino storm event. The Executive Director issued a waiver of coastal development permit (1-99-066-W) to authorize moving the house in September of 1999.
- The Denver/Canter home at 164/172 Neptune Avenue in Encinitas (San Diego County). In 1984 the Commission approved construction of new house on a vacant blufftop lot (Permit 6-84-461) based on a positive geotechnical report. In 1993, the owners applied for a seawall to protect the home (Permit Application 6-93-135). The Commission denied the request. In 1996 (Permit Application 6-96-138), and again in 1997 (Permit Application 6-97-90) the owners again applied for a seawall to protect the home. The Commission denied the requests. In 1998, the owners again requested a seawall (Permit Application 6-98-39) and submitted a geotechnical report that documented the extent of the threat to the home. The Commission approved the request on November 5, 1998.
- The Bennett home at 265 Pacific Avenue, Solana Beach (San Diego County). In 1995, the Commission approved a request to construct a substantial addition to an existing blufftop home (Permit 6-95-23). The minimum setback for the area is normally 40 feet. However, the applicants agreed to waive future rights to shore/bluff

protection if they were allowed to construct 25 feet from bluff edge based on a favorable geotechnical report. The Commission approved the request on May 11, 1995. In 1998, a substantial bluff failure occurred, and an emergency permit was issued for a seawall. The follow-up regular permit (#6-99-56) was approved by Commission on May 12, 1999. On August 18, 1999, the Commission approved additional seawall and upper bluff work on this and several other properties (Permit #6-99-100).

- The McAllister duplex at 574 Neptune Avenue, Encinitas (San Diego County). In 1988, the Commission approved a request to construct a duplex on a vacant blufftop lot (Permit #6-88-515) based on a favorable geotechnical report. By October 1999, failure of the bluff on the adjoining property to the south had spread to the bluff fronting 574 Neptune. An application is pending for upper bluff protection (Permit #6-99-114-G).
- The Arnold project at 3820 Vista Blanca in San Clemente (Orange County). Coastal development permit (Permit # 5-88-177) for a blufftop project required protection from bluff top erosion, despite geotechnical information submitted with the permit application that suggested no such protection would be required if the project conformed to 25-foot blufftop setback. An emergency coastal development permit (Permit #5-93-254-G) was later issued to authorize blufftop protective works.

It is not totally clear how the 25-foot setback or the worst case erosion rate of 1-inch per year was determined, in either of the geotechnical reports. Both the original and updated geotechnical reports indicate that as much as 3 feet of sloughing occurred on the southeasterly portion of the bluff between 1971 and 1985. This would indicate a blufftop erosion rate of up to about 2.5 inches per year between 1971 and 1985. A supplemental geotechnical report prepared by BACE, indicates that the 1-inch per year erosion rate was based on the review of aerial photographs taken between 1963 and 1981 and on a comparison of file photographs and current site conditions. However, none of the geotechnical reports actually state how much bluff retreat has occurred between any given time period or explicitly state how the bluff retreat rate was determined. The BACE geotechnical report goes on to state that their geological and engineering services and review of the proposed development was performed in accordance with the usual and current standards of the profession, as they relate to this and similar localities. *"No other warranty, expressed or implied, is provided as to the conclusions and professional advice presented in the report."*

In the Commission's experience, geologists have no way of absolutely predicting if or when bluff erosion on a particular site will take place, and cannot predict if or when a house or property may become endangered. Geologic hazards are episodic, and bluffs that may seem stable now may not be so in the future. Therefore, the Commission finds that the subject lot is an inherently hazardous piece of property, that the bluffs are clearly eroding, and that the proposed new development may result in a geologic hazard or may someday require a bluff or shoreline protective device, inconsistent with Zoning Code

Section 20.500.010. The Commission further finds that due to the inherently hazardous nature of this lot, the fact that no geology report can conclude with any degree of certainty that a geologic hazard does not exist, and because new development shall not engender the need for shoreline protective devices, it is necessary to attach Special Condition No. 2 requiring a deed restriction prohibiting the construction of seawalls and Special Condition No. 3 requiring a deed restriction waiving liability.

As noted above, some risks of an unforeseen natural disaster, such as an unexpected landslide, massive slope failure, erosion, etc. could result in destruction or partial destruction of the house or other development approved by the Commission. When such an event takes place, public funds are often sought for the clean up of structural debris that winds up on the beach or on an adjacent property. As a precaution, in case such an unexpected event occurs on the subject property, the Commission attaches Special Condition No. 2(A)(2), which requires the landowner to accept sole responsibility for the removal of any structural debris resulting from landslides, slope failures, or erosion on the site, and agree to remove the house should the bluff retreat reach the point where the structure is threatened.

The Commission finds that Special Condition No. 2 and Special Condition No. 3 are required to ensure that the proposed development is consistent with the LCP and that recordation of the deed restriction will provide notice of potential hazards of the property and help eliminate false expectations on the part of potential buyers of the property, lending institutions, and insurance agencies that the property is safe for an indefinite period of time and for further development indefinitely into the future, or that a seawall could be constructed to protect the development. Only as conditioned is the proposed development consistent with the LCP policies on geologic hazards.

The Commission thus finds that the proposed development, as conditioned, is consistent with the policies of the certified LCP regarding geologic hazards, including LUP Policies 3.4-7, 3.4-8, 3.4-9, 3.4-12, and Zoning Code Sections 20.500.010 and 20.500.020, as the proposed development will not result in the creation of any geologic hazards, will not have adverse impacts on the stability of the coastal bluff or on erosion, and the Commission will be able to review any future additions to ensure that development will not be located where it might result in the creation of a geologic hazard.

5. Visual Resources:

LUP Policy 3.5-1 and Zoning Code Section 20.504.010 state that the scenic and visual qualities of Mendocino County coastal areas shall be considered and protected as a resource of public importance, and that permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas and, where feasible, to restore and enhance visual quality in visually degraded areas.

Zoning Code Section 20.376.045 requires a maximum height of 28 feet above natural grade for Rural Residential parcels in Non-Highly Scenic Areas. Zoning Code Section 20.504.035(A)(2) states that where possible, all lights shall be shielded or positioned in a manner that will not shine light or allow glare to exceed the boundaries of the parcel on which it is placed.

The subject parcel is located on a small peninsula west of Highway One and is located south of the town of Point Arena. The proposed development includes a 17.3-foot-high, 2,642-square-foot single-family residence, with an attached garage, and other appurtenances. The site is not located within a designated "Highly Scenic Area", but is located in an area designated for tree removal. The surrounding area has a rural residential character and most views from Highway One are of existing homes and vacant well-vegetated lots. Additionally, views to the coast from Highway One in the vicinity of the subject site are for the most part blocked by existing onsite vegetation that consists primarily of Monterey Pines and densely dispersed mature shrubbery.

The proposed development will not adversely affect views to or along the coast, as the proposed development has been sited towards the rear of the lot and intervening vegetation will reduce the appearance of the residence as viewed from Highway One. The portions of the development that are visible from highway will be visually compatible with its surroundings, which consist of similar development to the north and south.

To ensure that the colors of the exterior surfaces of the proposed house will be compatible with the character of the area, the Commission attaches Special Condition No. 7, this condition imposes design restrictions, including a requirement that all exterior siding and roofing of the proposed structure shall be of natural or natural-appearing materials of dark earthtone colors only; that all exterior materials, including the roof and the windows, shall be non-reflective to minimize glare; and that all exterior lights, including any lights attached to the outside of the house, shall be low-wattage, non-reflective, and have a directional cast downward. These requirements are consistent with the provisions of Zoning Code Sections 20.504.010 and 20.504.035(A)(2).

The Commission also attaches Special Condition No. 1, which requires recordation of a deed restriction stating that all future development on the subject parcel that might otherwise be exempt from coastal permit requirements requires an amendment or coastal development permit. This condition will allow future development to be reviewed to ensure that the project will not be sited where it might have significant adverse impacts on visual and scenic resources.

Finally, the Commission attaches Special Condition No. 2, which requires recordation of a deed restriction stating that the landowner shall not construct any bluff or shoreline protective devices to protect the residence, garage, septic system, or other improvements in the event that these structures are subject to damage, or other natural hazards in the

future. This condition will ensure that in the future, no seawall will be constructed that would have significant adverse impacts on visual resources.

In conclusion, the visual impacts of the development have been minimized by requiring dark earthtone colors for the structure, and requiring lighting restrictions. Additionally, Special Condition No. 2 will ensure that a seawall that would dominate the appearance of the bluff will not be constructed in the future. The Commission thus finds that the proposed development, as conditioned, is consistent with LUP Policies 3.5-1, and with Zoning Code Sections 20.376.045, 20.504.010, and 20.504.635, as the project has been sited and designed to minimize visual impacts, will be visually compatible with the character of surrounding areas, and will provide for the protection of coastal views.

6. Environmentally Sensitive Habitat Areas:

LUP Policy 3.1-2 states in applicable part:

Development proposals in environmentally sensitive habitat areas such as wetlands, riparian zones on streams or sensitive plant or wildlife habitats (all exclusive of buffer zones) including, but not limited to those shown on the Land Use Maps, shall be subject to special review to determine the current extent of the sensitive resource. Where representatives of the County Planning Department, the California Department of Fish and Game, the California Coastal Commission, and the applicant are uncertain about the extent of sensitive habitat on any parcel such disagreements shall be investigated by an on-site inspection by the landowner and/or agents, County Planning Department staff member, a representative of California Department of Fish and Game, a representative of the California Coastal Commission. The on-site inspection shall be coordinated by the County Planning Department and will take place within 3 weeks, weather and site conditions permitting, of the receipt of a written request from the landowner/agent for clarification of sensitive habitat areas.

If all of the members of this group agree that the boundaries of the resource in question should be adjusted following the site inspection, such development should be approved only if specific findings are made which are based upon substantial evidence that the resource as identified will not be significantly degraded by the proposed development. If such findings cannot be made, the development shall be denied. Criteria used for determining the extent of wetlands and other wet environmentally sensitive habitat areas are found in Appendix 8 and shall be used when determining the extent of wetlands.

LUP Policy 3.1-7 states in applicable part:

A buffer area shall be established adjacent to all environmentally sensitive habitat areas. The purpose of this buffer area shall be to provide for a sufficient area to

protect the environmentally sensitive habitat from significant degradation resulting from future developments. The width of the buffer area shall be a minimum of 100 feet, unless an applicant can demonstrate, after consultation and agreement with the California Department of Fish and Game, and County Planning Staff, that 100 feet is not necessary to protect the resources of that particular habitat area from possible significant disruption caused by the proposed development. The buffer area shall be measured from the outside edge of the environmentally sensitive areas and shall not be less than 50 feet in width...Developments permitted within a buffer area shall generally be the same as those permitted in the adjacent environmentally sensitive habitat area...

LUP Policy 3.1-10 states in applicable part:

As required by the Coastal Act, development within wetland areas shall be limited to:

5. *Incidental public services purposes, including, but not limited to, burying cables and pipes...*

The Coastal Zoning Code reiterates and implements the policies pertaining to environmental sensitive habitat areas that are contained in the Land Use Plan.

As mentioned in the Substantial Issue portion of this report, the subject site contains a small 0.07-acre seasonal wetland. No disturbance to the wetland is proposed.

The proposed development would place structures within 100 feet of the environmentally sensitive habitat area. However, the development could still maintain a 50-foot-wide buffer. The Mendocino County Certified LCP allows for a reduction in the width of environmentally sensitive habitat area buffers from 100 feet to a minimum of 50 feet, when it can be determined that a decrease in buffer width will not affect the habitat in question. A supplemental correspondence from Wetland Research Associates, dated August 24, 1999, concludes that the project as proposed will protect the values of the wetland and the wetland buffer as long as the project is constructed in accordance with the recommend mitigation measures.

An existing gravel driveway already encroaches within 50 feet of the wetland. With respect to the proposed development the applicant proposes to place a portion of the 100-foot-long earthen berm, utility lines, and multiple sprinkler heads (for stormwater dissipation) within the 50-foot-wide environmentally sensitive habitat area buffer. The Mendocino County LUP Policy 3.1-10 only allows for developments within the reduced 50-foot-wide buffer, that are generally the same as those developments allowed in the environmentally sensitive habitat area itself. The sprinkler heads and utility lines can be allowed within the 50-foot-wide buffer, because they would be allowed in the wetland itself pursuant to LUP policy 3.1-10 (5), which specifically allows the placement of buried pipes within a wetland. However, the placement of the earthen berm within the

buffer is inconsistent with the LCP because these developments would not be allowed in the wetland itself.

Therefore, to find the project to be consistent with Mendocino County LUP Policy 3.1-7 and 3.1-10, the Commission attaches Special Condition No. 8, which requires the applicant to submit, for the Executive Director's review and approval, final site plans reflecting the repositioning of the propane tank and the 100-foot-long earthen berm outside of the 50-foot-wide environmentally sensitive habitat area buffer.

To further protect the wetland from significant degradation consistent with LUP Policy 3.1-7, the Commission also attaches Special Condition No. 8. This condition requires the applicant to construct the development in accordance with the approved final plans and with all of the recommendations and mitigation measures contained in the Jurisdictional Wetland Delineation report prepared by Wetland Research Associates, dated September 1997, and the supplemental correspondence from Wetland Research Associates, dated August 24, 1999. These mitigation measures include (1) aligning the utility trenches to be parallel to the driveway; (2) only excavating soil for trenches during dry conditions; (3) salvaging, irrigating and replanting all shrubs that are in the alignment of any trenches; (4) replacing any shrubs that can not be salvaged or that do not survive transplanting, with new shrubs; (5) storing soil on fabric matting or on the existing driveway to protect existing vegetation; (6) stockpiling soil for a maximum of 30 days; and (7) backfilling trenches to the level (or slightly mounded to allow for settling) of the surrounding undisturbed soil. Additionally, Special Condition No. 8 requires the applicant to install a temporary solid barrier (fence) around the perimeter of the wetland area prior to the commencement of construction activities, to prevent any construction related impacts to the environmentally sensitive habitat area. The temporary wetland protection fencing was included as part of similar special condition originally imposed by the County.

The Commission also attaches Special Condition No. 1, which requires recordation of a deed restriction stating that all future development on the subject parcel that might otherwise be exempt from coastal permit requirements requires an amendment or coastal development permit. This condition will allow future development to be reviewed to ensure that the project will not be sited where it might have significant adverse impacts on environmentally sensitive habitat areas.

Therefore, the Commission finds that the proposed development, as conditioned, is consistent with LUP policies 3.1-2, 3.1-7, and 3.1-10, no development is proposed within the environmentally sensitive habitat itself, and because Special Condition No. 1 and Special Condition No. 8 will ensure that an adequate buffer will be maintained that will not be developed with any development other than buried pipes and utility lines which are allowed under LUP Policy 3.1-7.

6. Archaeological Resources

LUP Chapter 3.5 states in applicable part:

Coastal archaeological sites and areas subject to archaeological surveys have been mapped by the California Archaeological Sites Survey, and the data is kept in the Cultural Resources Facility, Sonoma State University. ... At present, residential development, public access and timber harvesting appear to be the principle sources of destruction of archaeological sites.

LUP policy 3.5-10 states:

The County shall review all development permits to ensure that proposed projects will not adversely affect existing archaeological and paleontological resources. Prior to approval of any proposed development within an area of known or probable archaeological or paleontological significance, a limited field survey by a qualified professional shall be required at the applicant's expense to determine the extent of the resource. Results of the field survey shall be transmitted to the State Historical Preservation Officer and Cultural Resource Facility at Sonoma State University for comment. The County shall review all coastal development permits to ensure that proposed projects incorporate reasonable mitigation measures so the development will not adversely affect existing archaeological/paleontological resources. Development in these areas are subject to any additional requirements of the Mendocino County Archaeological Ordinance.

The staff report prepared by Mendocino County (Exhibit 8) for the proposed development indicates that project was referred to the Northwest Information Center of the California Archaeological Inventory at Sonoma State University. The Archaeological Inventory Center found that based on the review of scientific information, the project area has the possibility of containing archaeological resources. The Mendocino County Archaeological Commission reviewed the referral from the Archaeological Inventory Center and determined that an archaeological survey was not necessary. However, the Mendocino County Archaeological Commission acknowledged that although its unlikely, archeological resources could be present on the subject site.

To address this concern, the Commission attaches Special Condition No. 9, which requires the applicant to suspend construction of the development if cultural resources are in fact discovered during construction. Special Condition No. 9 also requires the applicant to prepare an archaeological plan for review and approval of the Executive Director prior to re-starting construction on the development after cultural resources have been discovered. Any changes to the development necessary to mitigate the archaeological impacts of the development that are not de minimus in nature would require an amendment to the permit. Finally, Special Condition No. 9 requires the applicant to record a deed restriction, within 90 days following discovery of the cultural

deposits, stating that all future development will be conducted in accordance with the recommendations contained in the archaeological plan prepared for the development. Special Condition No. 9 reiterates a similar condition imposed by the County.

Therefore, the Commission finds that the proposed development, as conditioned, is consistent with LUP policy 3.5-10, as Special Condition No. 9 will ensure that archaeological resources will be protected.

8. Public Access:

Projects located within the coastal development permit jurisdiction of a local government are subject to the coastal access policies of both the Coastal Act and the LCP. Coastal Act Sections 30210, 30211, and 30212 require the provision of maximum public access opportunities, with limited exceptions. Section 30210 states that maximum access and recreational opportunities shall be provided consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse. Section 30211 states that development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation. Section 30212 states that public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources, adequate access exists nearby, or agriculture would be adversely affected.

The Mendocino County LUP includes a number of policies regarding standards for providing and maintaining public access. Policy 3.6-9 states that offers to dedicate an easement shall be required in connection with new development for all areas designated on the land use plan maps. Policy 3.6-28 states that new development on parcels containing the accessways identified on the land use maps shall include an irrevocable offer to dedicate an easement.

LUP Policy 3.6-27 states that:

No development shall be approved on a site which will conflict with easements acquired by the public at large by court decree. Where evidence of historic public use indicates the potential for the existence of prescriptive rights, but such rights have not been judicially determined, the County shall apply research methods described in the Attorney General's "Manual on Implied Dedication and Prescriptive Rights." Where such research indicates the potential existence of prescriptive rights, an access easement shall be required as a condition of permit approval.

This language is reiterated in Zoning Code Section 20.528.030.

In its application of these policies, the Commission is 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 offset a project's adverse impact on existing or potential public access.

The subject site is located west of the first public road and sits atop a steep coastal bluff. The County's land use maps do not designate the subject parcel for public access, and there does not appear to be any safe vertical access to the rocky shore down the steep bluffs. According to the County, there is no evidence of public prescriptive use of the subject site, and so the County did not instigate a prescriptive rights survey. Since the proposed development will not increase significantly the demand for public access to the shoreline and will have no other impacts on existing or potential public access, the Commission finds that the proposed project, which does not include provision of public access, is consistent with the public access policies of the Coastal Act and the County's LCP.

9. California Environmental Quality Act:

Section 13096 of the Commission's administrative regulations requires Commission approval of a coastal development permit application to be supported by findings showing that the application, as modified by any conditions of approval, is consistent with any applicable requirement 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 the proposed development may have on the environment. As discussed above, the proposed project has been conditioned to be found consistent with the Mendocino County LCP and the public access and recreation policies of the Coastal Act. Mitigation measures which will minimize all adverse environmental impacts have been required.

As conditioned, there are no feasible alternatives or feasible mitigation measures available, beyond those required, 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 to be consistent with the requirements of the Coastal Act to conform to CEQA.

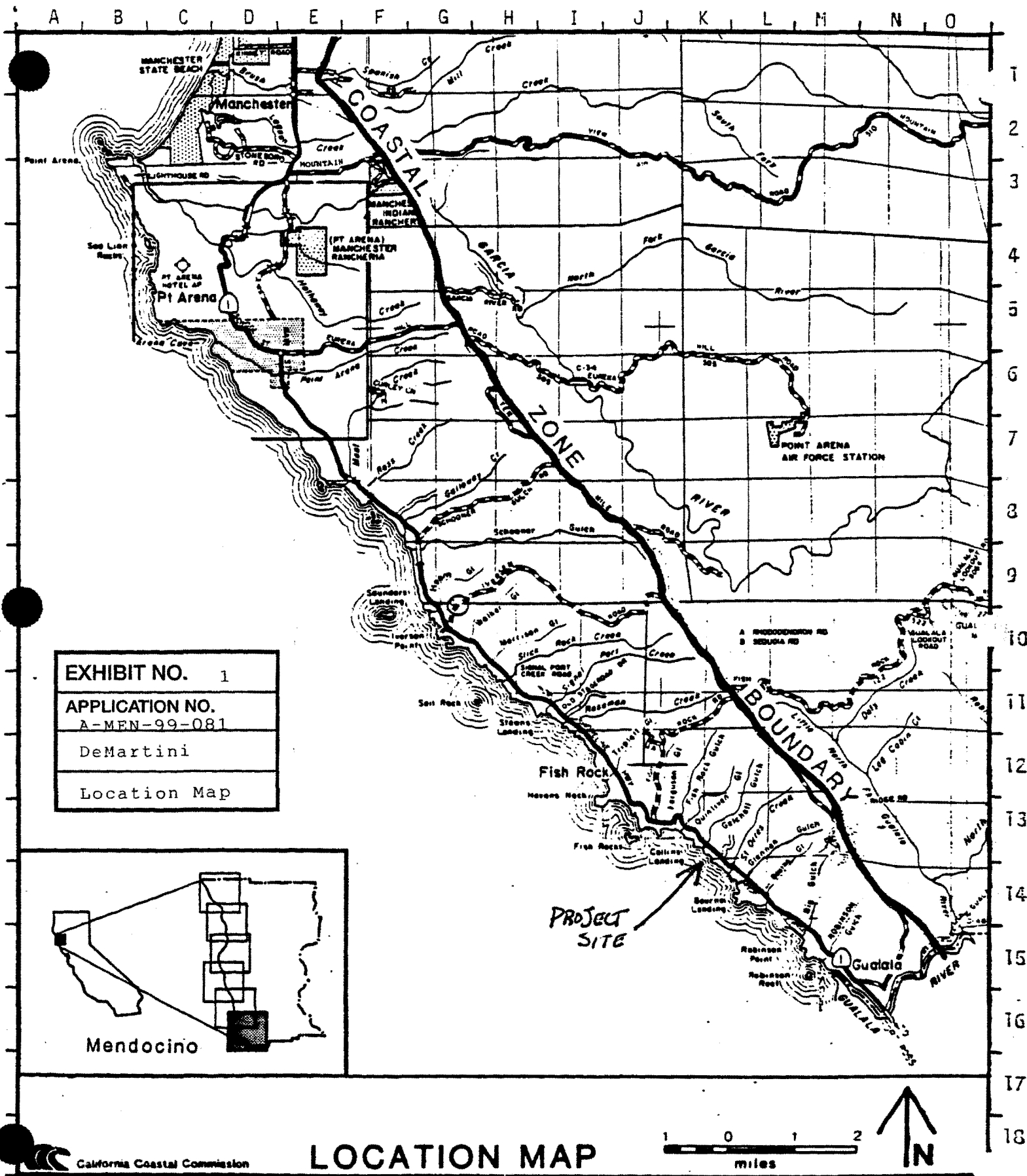
Exhibits

1. Location Map
2. Vicinity Map
3. Site Plans
4. Elevations
5. Notice of Final Action and Conditions of Approval, December 16, 1999
6. Appeal to Commission, December 23, 1999
7. Appeal to Commission, December 30, 1999
8. Appeal reference: County Staff Report
9. Wetland Delineation Report (21 pages)
10. Wetland Correspondence (4 pages)
11. Geotechnical Report (29 pages)
12. Geotechnical Supplemental Review (2 pages)
13. Drainage Report
14. Staff Comments to County
15. Correspondence

ATTACHMENT A

Standard Conditions

1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. Expiration. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
3. Compliance. 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. Interpretation. Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.
5. Inspections. The Commission staff shall be allowed to inspect the site and the development during construction, subject to 24-hour advance notice.
6. 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.
7. 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.



CDP #102-98/CDV #17-98

May 27, 1999

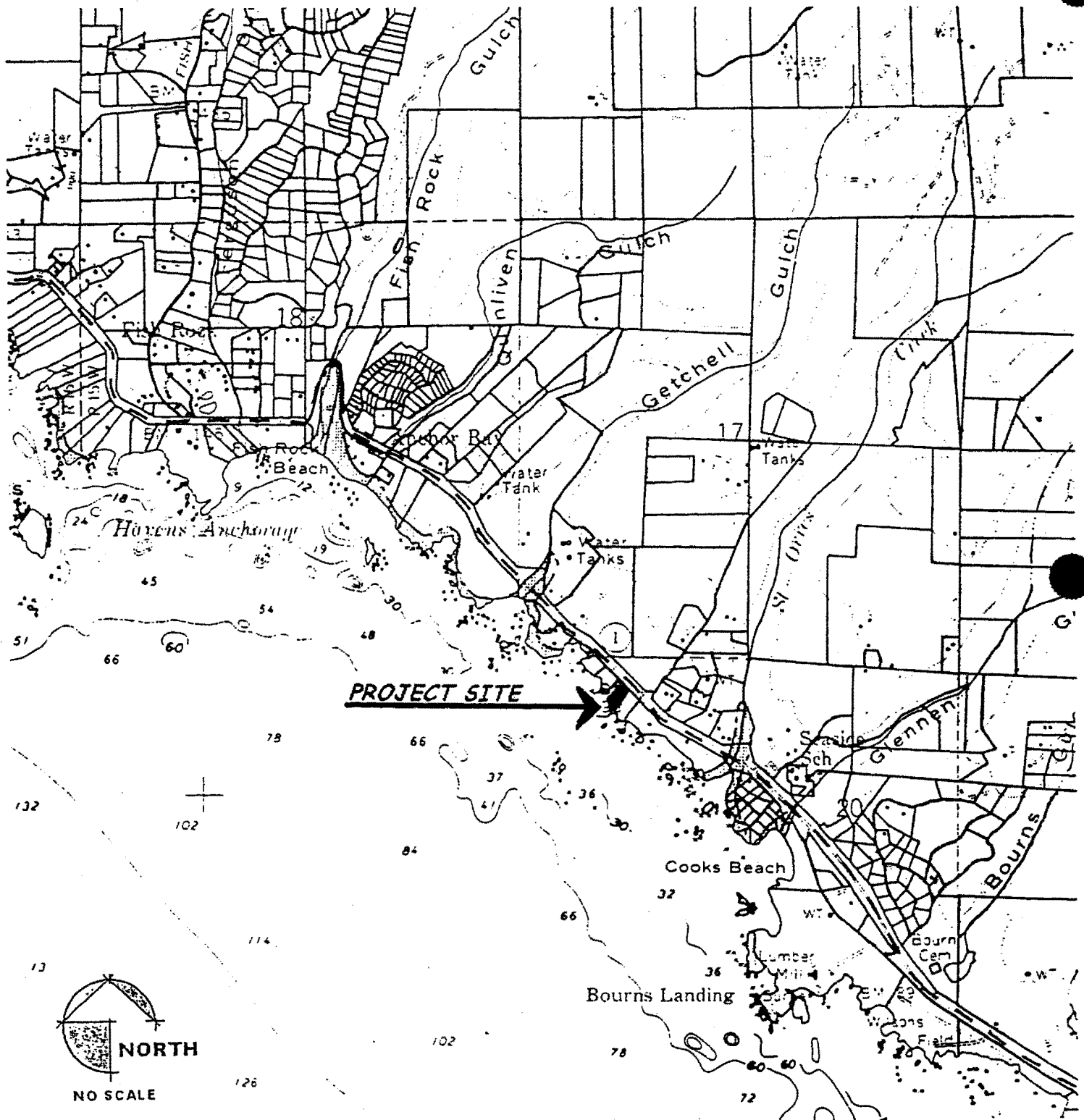


EXHIBIT A

EXHIBIT NO. 2

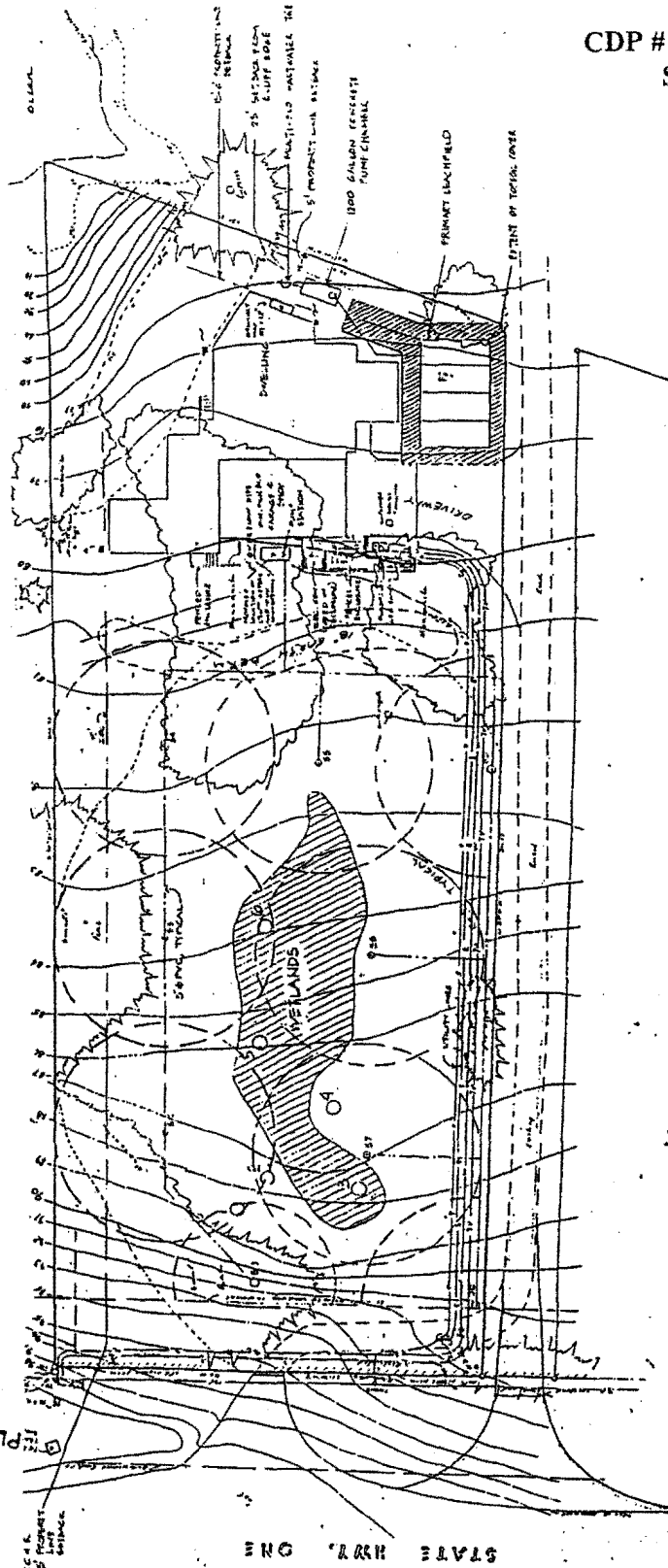
APPLICATION NO.
A-1-MEN-99-081

DeMartini

Vicinity Map

LOCATION MAP

September 23, 1999

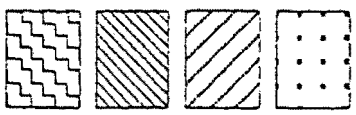


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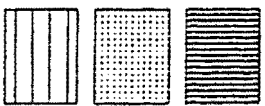
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Site Plans

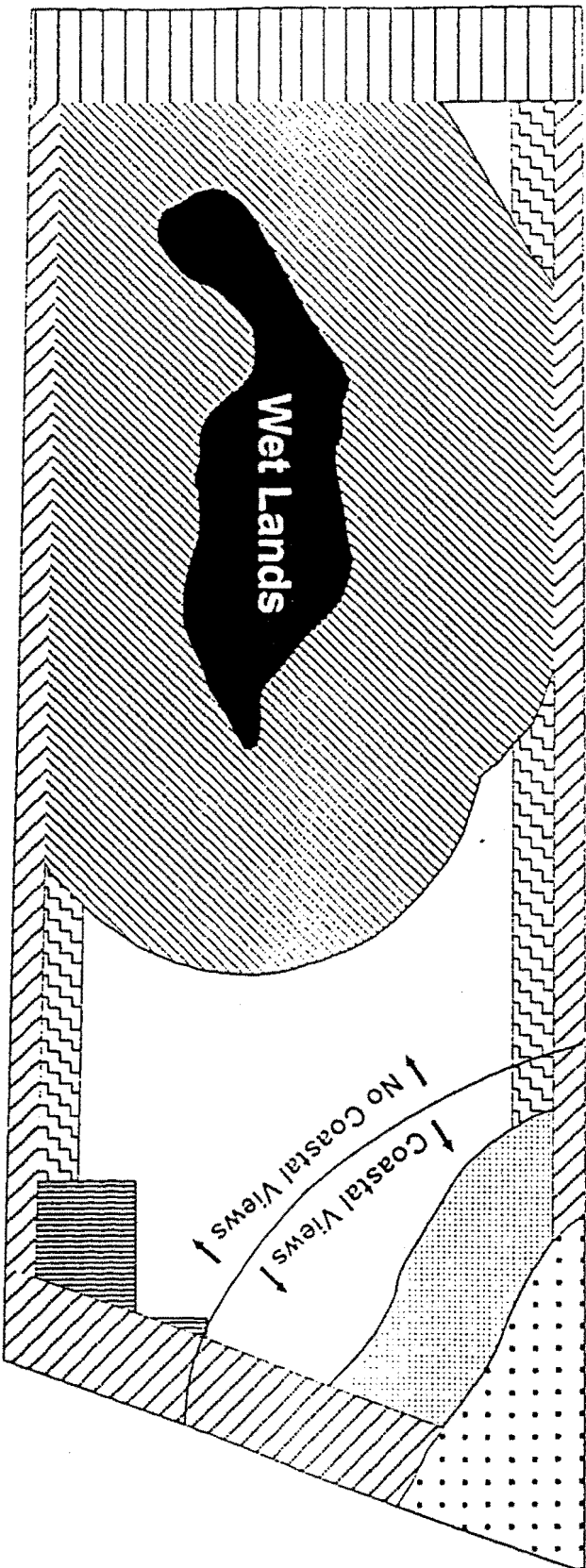
SITE PLAN



Bluff and Pacific Ocean
Zoning Setbacks
50' Minimum Setback from Wetlands
CC&R 15' Setback



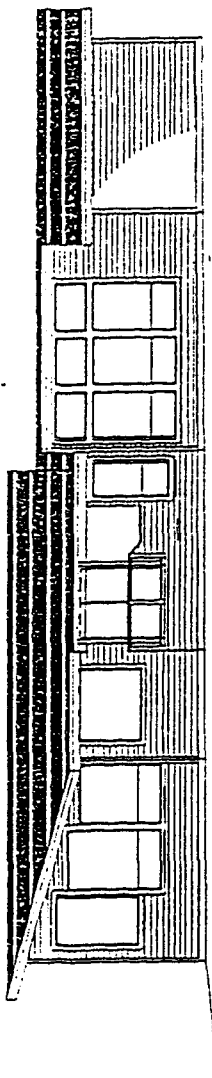
Primary Leach Field
25' Minimum Setback from Bluff Edge
20' Easement for Access



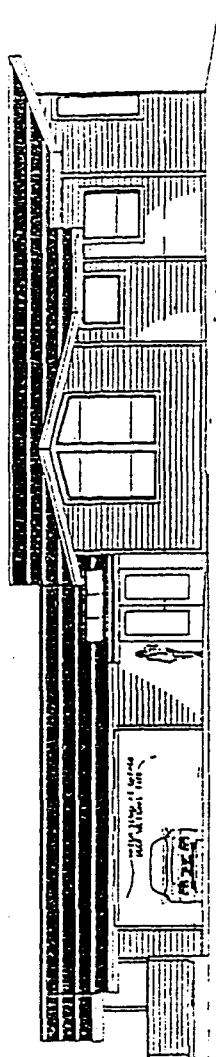
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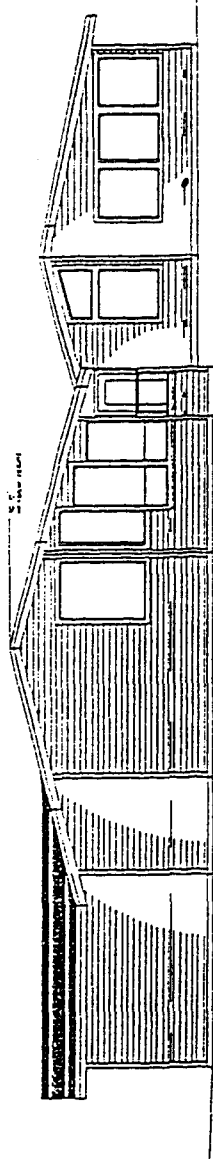
CDP#102-98/CDV #17-98
May 27, 1999



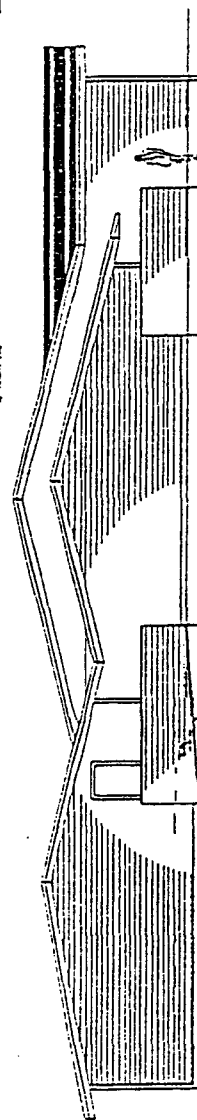
southeast elevation



northwest elevation



southwest elevation



northeast elevation

ELEVATIONS

EXHIBIT NO. 4

APPLICATION NO.
A-1-MEN-99-081

DeMartini
Elevations



RAYMOND HALL
DIRECTOR

TELEPHONE
(707) 964-6379

COUNTY OF MENDOCINO
DEPARTMENT OF PLANNING AND BUILDING SERVICES

MAILING ADDRESS:
790 SO. FRANKLIN
FORT BRAGG, CA 95437

December 16, 1999

NOTICE OF FINAL ACTION

Action has been completed by the County of Mendocino on the below described project located within the Coastal Zone.

CASE#: CDP #102-98/CDV #17-98
OWNER: David DeMartini
AGENT: Ed McKinley
REQUEST: Construction of a 2,642± square foot single family residence with an attached 786 square foot± garage/workshop. Maximum building height to be 17.3 feet. Construction of a pump station/sprinkler system with a 1200 gallon underground tank to distribute storm water. Sprinkler system requires approximately 310 square feet of surface area to be excavated during construction. Construction of 100' long, 18" high earthen berm. Installation of a generator pad, a septic system, propane tank and a 25-foot tall flag pole. Underground extension of all utilities along the north property line.
LOCATION: W side of Highway 1, approximately ½ mile S of Getchell Gulch at 36350 South Highway 1 (APN 144-130-28).
PROJECT COORDINATOR: Doug Zanini

HEARING DATE: December 13, 1999

APPROVING AUTHORITY: Board of Supervisors

ACTION: CDP #102-98 approved, with Special Condition #7 eliminated ; CDV 17-98 denied.

See staff report for the findings and conditions in support of this decision.

The project was appealed at the local level.

The project is appealable to the Coastal Commission pursuant to Public Resources Code, Section 30603. An aggrieved person may appeal this decision to the Coastal Commission within 10 working days following Coastal Commission receipt of this notice. Appeals must be in writing to the appropriate Coastal Commission district office.

EXHIBIT NO. 5
APPLICATION NO. A-1-MEN-99-081
DeMartini
Notice of Final Action

CDP #102-98/CDV #17-98 Demartini**Corrected Special Conditions of approval adopted by the Coastal Permit Administrator on September 24, 1999.**

1. Prior to issuance of the coastal development permit, the applicant shall submit for the review and approval of the Coastal Permit Administrator, color samples of all exterior finishes of the residence.
2. Prior to issuance of the coastal development permit, the applicant shall submit for the review and approval of the Coastal Permit Administrator, revised site plans, floor plans and building elevations reflecting the elimination of the portion of the house within the rear yard setback.
3. All recommendations within the geotechnical investigations by Field Engineering Associates, Inc. (1986) and BACE Geotechnical, (August 22, 1994, and September 1, 1999) shall be incorporated into the design and construction of the residence. Prior to issuance of the coastal development permit, the applicant shall submit a monitoring program for the bluff drainage conditions after the project is completed. A maintenance plan of bluff edge vegetation with drip irrigation during summer months shall be submitted for the review and approval of the Coastal Permit Administrator, prior to issuance of the coastal development permit.
4. Prior to any site development activities, temporary fencing shall be installed at the perimeter of the wetland area. Construction activities including vegetation removal, excavation, materials or equipment storage shall not be permitted the wetland area. All recommendations for development within the ESHA and buffer area by Wetland Research Associates, Inc. report dated August 24, 1999 shall be incorporated into the development of the property. All construction personnel shall be informed of the sensitivity to the ESHA and shall be required to follow procedures to minimize the disturbance within the ESHA buffer area.
5. After construction of the drainage system, there shall be no mowing, ornamental landscaping or other disturbance within 50 feet of the ESHA.
6. Development shall conform with the site plan dated August 18, 1999. All exterior building materials and finishes shall match those specified in the coastal development permit application. Windows shall be made of non-reflective glass.
7. Prior to the issuance of the Coastal Development Permit, the applicant as landowner shall execute and record a deed restriction, in a form and content acceptable to the Coastal Permit Administrator which shall provide that:
 - The landowner understands that the site may be subject to extraordinary geologic and erosion hazards and landowner assumes the risk from such hazards;
 - The landowner agrees to indemnify and hold harmless the County of Mendocino, it successors in interest, advisors, officers, agents and employees

CDP #102-98/CDV #17-98

December 13, 1999

Page 2

against any and all claims, demands, damages, costs, and expenses of liability (including without limitation attorneys' fees and costs of the suit) arising out of the design, construction, operation, maintenance, existence or failure of the permitted project. Including, without limitation, all claims made by any individual or entity or arising out of any work performed in connection with the permitted project;

- The landowner agrees that any adverse impacts to the property caused by the permitted project shall be fully the responsibility of the applicant;
- The landowner shall not construct any bluff or shoreline protective devices to protect the subject single-family residence, garage, septic system, or other improvements in the event that these structures are subject to damage, or other erosional hazards in the future;
- The landowner shall remove the house and its foundation when bluff retreat reaches the point where the structure is threatened. In the event that portions of the house, garage, foundations, leach field, septic tank, or other improvements associated with the residence fall to the beach before they can be removed from the blufftop, the landowner shall remove all recoverable debris associated with these structures from the beach and ocean and lawfully dispose of the material in an approved disposal site. The landowners shall bear all costs associated with such removal;
- The document shall run with the land, bind all successors and assigns, and shall be recorded free of all prior liens and encumbrances, except for tax liens.

CALIFORNIA COASTAL COMMISSION

45 FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105-2219
VOICE AND TDD (415) 904-5200
(415) 904-5400

APPEAL FROM COASTAL PERMIT
DECISION OF LOCAL GOVERNMENT

Please Review Attached Appeal Information Sheet Prior To Completing
This Form.

SECTION I. Appellant(s)

Name, mailing address and telephone number of appellant(s):

Friends of Schooner Gulch

Box 4

Point Arena CA 95468 (707) 882-2001

Zip

Area Code

Phone No.

SECTION II. Decision Being Appealed

1. Name of local/port

government: Mendocino County

2. Brief description of development being

appealed: Home and Garage on Sea Cliff.

3. Development's location (street address, assessor's parcel
no., cross street, etc.): 36350 S. HWY ONE, 1/2 MILE

S. OF GATHELL GULCH, APN 141-130-28

4. Description of decision being appealed:

a. Approval; no special conditions: _____

b. Approval with special conditions: ✓

c. Denial: _____

Note: For jurisdictions with a total LCP, denial
decisions by a local government cannot be appealed unless
the development is a major energy or public works project.
Denial decisions by port governments are not appealable.

TO BE COMPLETED BY COMMISSION:

APPEAL NO: _____

DATE FILED: _____

DISTRICT: _____

H5: 4/88

EXHIBIT NO. 6

APPLICATION NO.
A-1-MEN-99-081

DeMartini

Appeal to Comm.
December 23, 1999

APPEAL FROM COASTAL PERMIT DECISION OF LOCAL GOVERNMENT (Page 2)

5. Decision being appealed was made by (check one):

- a. ☐ Planning Director/Zoning Administrator c. ☐ Planning Commission
b. ☒ City Council/Board of Supervisors d. ☐ Other _____

6. Date of local government's decision: December 13, 1999

7. Local government's file number (if any): CDP 102-98

SECTION III. Identification of Other Interested Persons

Give the names and addresses of the following parties. (Use additional paper as necessary.)

a. Name and mailing address of permit applicant:

David DeMartini
c/o Agent: Ed McKinley
237 MORROW ST FT BRAGG CA 95437

b. Names and mailing addresses as available of those who testified (either verbally or in writing) at the city/county/port hearing(s). Include other parties which you know to be interested and should receive notice of this appeal.

- (1) COAST ACTION GROUP
BOX 425
POINT ARENA CA 95468
- (2) SUPERVISOR DAVID COLFAY
COURTHOUSE
UKIAH CA 95482
- (3) SUPERVISOR PATTY CAMPBELL
COURTHOUSE
UKIAH CA 95482
- (4) REDWOOD COAST LAND CONSERVANCY
BILL WIEMMEYER, PRESIDENT
BOX 1511, GUADALUPE CA 95445

(5) See Additional, Attached

SECTION IV. Reasons Supporting This Appeal

Note: Appeals of local government coastal permit decisions are limited by a variety of factors and requirements of the Coastal Act. Please review the appeal information sheet for assistance in completing this section, which continues on the next page.

APPEAL FROM COASTAL PERMIT DECISION OF LOCAL GOVERNMENT (Page 3)

State briefly your reasons for this appeal. Include a summary description of Local Coastal Program, Land Use Plan, or Port Master Plan policies and requirements in which you believe the project is inconsistent and the reasons the decision warrants a new hearing. (Use additional paper as necessary.)

The BOS reversed the ruling of the
Coastal Permit Administrator to prohibit
future sea walls on the property. (LUP
Policies 3.4-7, 9, 10, 12; 3.5-1, and Zoning
Code Sections 20.500.010-.015-.020.


Letter to follow.

Note: The above description need not be a complete or exhaustive statement of your reasons of appeal; however, there must be sufficient discussion for staff to determine that the appeal is allowed by law. The appellant, subsequent to filing the appeal, may submit additional information to the staff and/or Commission to support the appeal request.

SECTION V. Certification

The information and facts stated above are correct to the best of my/our knowledge.

ADDITIONAL APPELLANTS :
See Attached


Signature of Appellant(s) or
Authorized Agent

Date 12/21/99

NOTE: If signed by agent, appellant(s)
must also sign below.

Section VI. Agent Authorization

I/We hereby authorize _____ to act as my/our
representative and to bind me/us in all matters concerning this
appeal.

Signature of Appellant(s)

Date _____

Friends of Schooner Gulch

A Watershed Organization

P. O. Box 4, Point Arena, California 95468

(707) 882-2001, Fax (707) 882-2011

ATTACHMENT:

Executive Committee:

Sarah Flowers
Charles Peterson
Peter Reimuller

ADDITIONAL APPELLANTS:

(1) REDWOOD CHAPTER SIERRA CLUB
c/o JULIE VERRAN
BOX 382, GUALALA CA 95445
(707) 884-3740

(2) LAKE AND MENDOCINO GROUP
SIERRA CLUB
c/o MENDOCINO COASTWATCH
ROANNE WITTERS
BOX 198
FORT BRAGG CA 95437

Schooner Gulch Farm, Inc.

Post Office Box Four, 45,500 Schooner Gulch Road,
Point Arena, California 95468

Peter Reimuller, President

(707) 882-2001

ADDITIONAL INTERESTED PARTIES:

- (5) MOUNT CREEK MANAGING AGENCY
BOX 425
POINT ARENA, CA 95468
- (6) TOM PIPER, CHAIRMAN
MENDOCINO COUNTY PLANNING COMMISSION
501 LOW GAP ROAD, ROOM 1440
UKIAH CA 95482
- (7) NANCY BARTH, COMMITTEE MEMBER
MENDOCINO COUNTY PLANNING COMMISSION
501 LOW GAP ROAD, ROOM 1440
UKIAH CA 95482
- (8) DIANE HERRING, COMMITTEE MEMBER
MENDOCINO COUNTY PLANNING COMMISSION
501 LOW GAP ROAD, ROOM 1440
UKIAH CA 95482
- (9) MR RAY HALL, DIRECTOR
DEPARTMENT OF PLANNING & BUILDING
MENDOCINO COUNTY
501 LOW GAP RD, ROOM 1440
UKIAH CA 95482
- (10) MR DOUG ZANINI
PLANNING DEPARTMENT
790 S, FRANKLIN ST,
FT. BRAGG CA 95437

APPEAL FROM COASTAL PERMIT
DECISION OF LOCAL GOVERNMENT

Please Review Attached Appeal Information Sheet Prior To Completing This Form

Section I. Appellant(s)

Name, mailing address and telephone number of appellant(s):

Commissioners Sara Wan and Mike Reilly

(See attached)

()

Zip

Area Code

Phone No.

Section II. Decision Being Appealed

1. Name of local/port

Government: County of Mendocino

2. Brief description of development being

appealed: Construction of a 17.3-foot-tall 2,642-square-foot single family residence, 786-square-foot garage/workshop, a pump station/sprinkler storm water distribution system, a 100-foot-long 18-inch-high earthen berm, and other appurtenances on a 0.93-acre blufftop parcel in Mendocino County.

3. Development's Location (street address assessor's parcel no., cross street etc):

On the west side of Highway One, approximately 1/2 mile south of Getchell Gulch at 6350 South Highway One, Mendocino County, APN No. 144-130-28

4. Description of decision being appealed:

a. Approval: no special conditions: _____

b. Approval with special conditions: CDP#102-98

c. Denial: _____

Note: For jurisdictions with a total LCP, denial decisions by a local government cannot be appealed unless the development is a major energy or public works project. Denial decisions by port governments are not appealable.

TO BE COMPLETED BY COMMISSION:

APPEAL NO: A-1-MEN-99-81

DATE FILED: 12/30/99

DISTRICT: NORTH COAST

EXHIBIT NO.	7
APPLICATION NO.	A-1-MEN-99-081
DeMartini	
Appeal to Comm.	December 30, 1999

APPEAL FROM COASTAL PERMIT DECISION OF LOCAL GOVERNMENT (Page 2)

5. Decision being appealed was made by (check one):

a. ☐ Planning Director/Zoning
Administrator

c. ☐ Planning Commission

b. ☒ City Council/Board of
Supervisors

d. ☐ Other _____

6. Date of local government's decision: December 13, 1999

7. Local government's file number (if any): CDP#102-98

SECTION III. Identification of other interested parties.

Give the names and addresses of the following parties (use additional paper as necessary.)

a. Name and mailing address of permit applicant:

David DeMartini
11714 Sprigs Way
Houston, TX 77024

b. Names and addresses as available of those who testified (either verbally or in writing) at the city/county/port hearing(s). Include other parties which you know to be interested and should receive notice.

(1) (See attached)

(2) _____

(3) _____

(4) _____

SECTION IV. Reasons Supporting This Appeal

Note: Appeals of local government coastal permit decisions are limited by a variety of factors and requirements of the Coastal Act. Please review the appeal information sheet for assistance in completing this section, which continues on the next page.

APPEAL FROM COASTAL PERMIT DECISION OF LOCAL GOVERNMENT (Page 3)

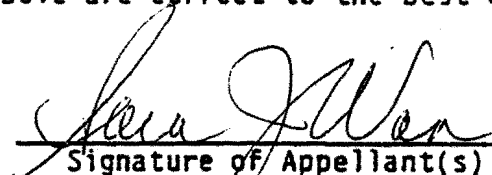
State briefly your reasons for this appeal. Include a summary description of Local Coastal Program, Land Use Plan, or Port Master Plan policies and requirements in which you believe the project is inconsistent and the reasons the decision warrants a new hearing. (Use additional paper as necessary.)

(See attached)

Note: The above description need not be a complete or exhaustive statement of your reasons of appeal; however, there must be sufficient discussion for staff to determine that the appeal is allowed by law. The appellant, subsequent to filing the appeal, may submit additional information to the staff and/or Commission to support the appeal request.

SECTION V. Certification

The information and facts stated above are correct to the best of my/our knowledge.



Signature of Appellant(s) or
Authorized Agent

Date 12/29/99

NOTE: If signed by agent, appellant(s)
must also sign below.

Section VI. Agent Authorization

I/We hereby authorize _____ to act as my/our representative and to bind me/us in all matters concerning this appeal.

Signature of Appellant(s)

Date _____

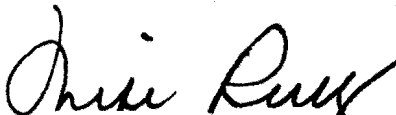
State briefly your reasons for this appeal. Include a summary description of Local Coastal Program, Land Use Plan, or Port Master Plan policies and requirements in which you believe the project is inconsistent and the reasons the decision warrants a new hearing. (Use additional paper as necessary.)

(See attached)

Note: The above description need not be a complete or exhaustive statement of your reasons of appeal; however, there must be sufficient discussion for staff to determine that the appeal is allowed by law. The appellant, subsequent to filing the appeal, may submit additional information to the staff and/or Commission to support the appeal request.

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The information and facts stated above are correct to the best of my/our knowledge.



Signature of Appellant(s) or
Authorized Agent

Date 12/29/99

NOTE: If signed by agent, appellant(s)
must also sign below.

Section VI. Agent Authorization

I/We hereby authorize _____ to act as my/our representative and to bind me/us in all matters concerning this appeal.

Signature of Appellant(s)

Date _____

Background:

On December 16th, 1999 the Mendocino County Department of Planning and Building Services issued a Notice of Final Action approving Coastal Development Permit No.102-98 (DeMartini) and denying Coastal Development Variance No. 17-98. The approved development includes (1) construction of a 2,642-square-foot single family residence with a maximum height of 17.3 feet and an attached 786-square-foot garage, (2) construction of a pump station/sprinkler system with a 1200 gallon underground tank to distribute stormwater, (3) construction of a 100-foot-long, 18-inch-high earthen berm, (4) installation of a generator pad, (5) a septic system, (6) a propane tank, and (7) a 25-foot-tall flagpole. The subject site is a 0.93-acre blufftop parcel located about ½ mile south of Getchell Gulch in Mendocino County.

The Mendocino County Coastal Permit Administrator originally approved the DeMartini coastal development permit on September 24th, 1999. The Originally approved permit, as recommend by County staff, contained seven special conditions. Special Condition #7 was a modified version of a special condition that the Commission imposed on a similar project in the area (Klute Permit No. A-1-MEN-99-26). Special Condition # 7 required, in part, that the landowner record a deed restriction stating that he assume the inherent and extraordinary risk of erosion and geologic hazard associated with the developing the blufftop and that no future seawall or shoreline protective devices can ever be constructed to protect the approved development. In the case of Klute (Permit No. A-1-MEN-99-26) the Commission found that a similar special condition was needed to ensure that the development was consistent with the geologic hazard policies contained in the County's certified LCP. However, the permit applicant appealed the approved coastal development permit to the County Board of Supervisors, in part, because he opposed Special Condition #7 that was adopted with the permit.

On December 13th, 1999, Commission staff faxed a letter to the Board of Supervisors requesting that they uphold the County Coastal Permit Administrator's decision and include Special Condition #7 in the coastal development permit. However, later that day on December 13th, 1999, the County Board of Supervisors approved the coastal development permit without Special Condition # 7.

Reasons For Appeal:

The DeMartini coastal development permit as approved is inconsistent with a number of LCP policies pertaining to geologic hazards, including LUP Policies 3.4-7, 3.4-8, 3.4-9, and 3.4-12 and Zoning Code Sections 20.500.010, and 20.500.020 [specifically 20.500.020(b) and 20.500.020(e)(1)]. The approved development could result in the creation of a geologic hazard and/or necessitate the future construction of a seawall to protect the approved development.

Section 3.4-7 of the LUP and Zoning Code Section 20.500.020(b) state that blufftop setbacks shall be of sufficient distance to eliminate the need for shoreline protective works. Section 20.500.010 of the Mendocino County Coastal Zoning Ordinance states that new development shall minimize risk to life and property in areas of high geologic, flood, and fire hazard, assure structural integrity and stability, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding areas, nor in any way require the construction of protective devices that

would substantially alter natural landforms along bluffs and cliffs. A geologic report prepared for the project indicates that bluff retreat is not anticipated to affect the proposed development during the 75-year life of the project. However, bluff retreat is a complex process that involves the dynamic interaction of many variables and consequently, the rate of bluff retreat can not be absolutely predicted. It has been the experience of the Commission that in some instances, even when a thorough professional geotechnical analysis of a site has concluded that a proposed development will be safe from bluff retreat hazards, unexpected bluff retreat episodes that threaten development during the life of the structure sometimes still do occur. In many such instances the developers have later applied for coastal permits to build seawalls to protect the previously approved development from unanticipated bluff retreat that did, in fact, occur. The project as approved is inconsistent with Section 3.4-7 of the LUP and Zoning Code Sections 20.500.020(b) and 20.500.010 because there is no mechanism in place to ensure that shoreline protective devices won't be constructed in the future should unexpected bluff retreat occur.

LUP Section 3.4-9 and Zoning Code Section 20.500.020(b) state that any development landward of the blufftop setback shall be constructed so as to ensure that surface and subsurface drainage does not contribute to the erosion of the bluff face or to the instability of the bluff itself. However, the approved project includes the construction of a 100-foot-long, 18-inch-high earthen berm in an approximate east to west alignment across the subject parcel. Apparently the berm is intended to protect the residence from potential flooding from a small wetland area located inland of the approved residence. However, it appears that berm will channelize surface water runoff and direct it toward the bluff edge or toward the adjacent property. The approved project is inconsistent with LUP Section 3.4-9 and Zoning Code Section 20.500.020(B) since concentrating surface water flows and directing them toward the bluff could cause headcutting of the bluff edge and eventually lead to erosion of the bluff face or to the instability of the bluff itself.

Therefore, for the reasons stated above we hereby appeal this decision of the County of Mendocino on the grounds that the approved development (CDP # 102-98) does not conform to the standards and policies set forth in the County's certified LCP.

ATTACHMENT
APPELLANTS' ADDRESSES

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Commissioner Mike Reilly
Supervisor
County of Sonoma
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E501 Low Gap Road, Room 1440
Ukiah, CA 95482

Nancy Barth, Committee Member
Mendocino County Planning Commission
501 Low Gap Road, Room 1440
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Diane Herring, Committee Member
Mendocino County Planning Commission
501 Low Gap Road, Room 1440
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Ray Hall
Mendocino County Planning & Building
501 Low Gap Road, Room 1440
Ukiah, CA 95482

COASTAL PERMIT ADMINISTRATOR ACTION SHEET

CASE#: CDP #102-98/CDV #17-98 HEARING DATE: 9/23/99*

OWNER: DeMartini

ENVIRONMENTAL CONSIDERATIONS:

☒ Categorically Exempt
☐ Negative Declaration
☐ EIR

EXHIBIT NO.	8
APPLICATION NO.	A-1-MEN-99-081
DeMartini	
County Staff	Report

FINDINGS:

☒ Per staff report
☐ Modifications and/or additions

ACTION:

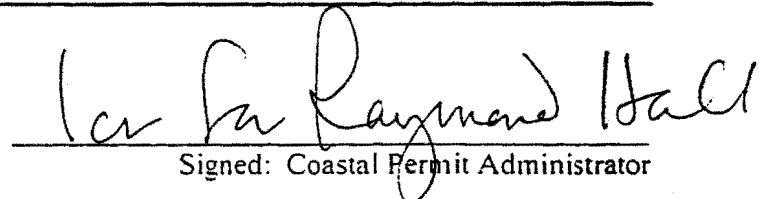
☒ Approved CDP #102-98
☒ Denied CDV #17-98 - The variance was denied because this finding could not be made: "That such variance is necessary for the preservation and enjoyment of privileges possessed by other property in the same vicinity and zone and denied to the property in question...." Evidence had not been provided to show that the floor plan could not be moved 5+ feet to the east; therefore, approving the variance would have provided to the applicant an ability to build within the setbacks, a privilege not available or utilized by other property in the area.

CONDITIONS:

☒ Per staff report
☒ Modifications and/or additions:

Add the special conditions contained within the memo dated 9/7/99 from Doug Zanini and the blufftop protection measure contained within the memo dated 9/23/99 from Doug Zanini.

*This action was taken 9/24/99.


Signed: Coastal Permit Administrator

COASTAL PERMIT ADMINISTRATOR ACTION SHEET

CASE#: CDP #102-98/CDV #17-98

HEARING DATE: 7/22/99

OWNER: DeMartini

ENVIRONMENTAL CONSIDERATIONS:

☐ Categorically Exempt 3(a)

☐ Negative Declaration

☐ EIR

FINDINGS:

☐ Per staff report

☐ Modifications and/or additions

ACTION:

☐ Approved

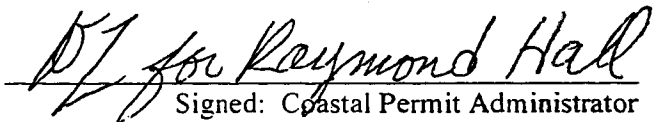
☐ Denied

☒ Continued to August 26, 1999

CONDITIONS:

☐ Per staff report

☐ Modifications and/or additions


Signed: Coastal Permit Administrator

COASTAL PERMIT ADMINISTRATOR ACTION SHEET

CASE#: CDP #102-98/CDV #17-98

HEARING DATE: 5/27/99

OWNER: DeMartini

ENVIRONMENTAL CONSIDERATIONS:

☒ Categorically Exempt 3(a)

☐ Negative Declaration

☐ EIR

FINDINGS:

☐ Per staff report

☐ Modifications and/or additions

ACTION:

☐ Approved

☐ Denied

☒ Continued to July 22, 1999

CONDITIONS:

☐ Per staff report

☐ Modifications and/or additions

lcr for Ray Hall

STAFF REPORT FOR
STANDARD COASTAL DEVELOPMENT PERMIT &
COASTAL DEVELOPMENT VARIANCE

CDP#102-98/CDV#17-98
May 27, 1999
CPA-1

OWNER: David Demartini
11714 Spriggs Way
Houston, TX 77024

AGENT: Ed McKinley
237 Morrow Street
Fort Bragg, CA 95437

REQUEST: Construction of a 2,749± square foot single family residence with an attached 792 square foot± garage/workshop. Maximum building height to be 16 feet. Installation of nine 14"x34" leaching chambers totaling 257 linear feet for storm water runoff. Construction of 100' long, 18" high earthen berm. Excavation of drainage ditch along north property line. Installation of a generator pad, two pumping chambers, a septic system, propane tank and a 25-foot tall flag pole.

Variance to reduce the rear yard setback from 20 feet to 15 feet.

LOCATION: On the west side of Highway One, approximately ½ mile south of Getchell Gulch at 36350 South Highway One (APN 144-130-28).

APPEALABLE AREA: Yes (bluff top parcel)

PERMIT TYPE: Standard

TOTAL ACREAGE: 0.93 acres

ZONING: RR:L-5 [RR:L-2]

GENERAL PLAN: RR-5 [RR-2]

EXISTING USES: Vacant

SUPERVISORIAL DISTRICT: 5

GOV'T CODE 65950 DATE: July 28, 1999

ENVIRONMENTAL DETERMINATION: Categorical Exemption. Class 3(a)

OTHER RELATED APPLICATIONS: Septic permit 9447-F

PROJECT DESCRIPTION: The applicant proposes to construct a 2,749 square foot single family residence with an attached 792 square foot garage/workshop. The residence is to be one-story and the maximum building height is to be 16 feet. The project includes installation of drainage improvements to accommodate storm water runoff. The proposed drainage system includes a 1000 gallon pump chamber, nine 14"x34" leaching chambers totaling 257 linear feet and construction of a drainage ditch along the existing driveway easement. The project includes the installation of a generator pad, a septic system, a propane tank and a 25-foot tall flag pole. The flag pole and propane tank, as proposed, are located approximately 55 feet from the western edge of pavement of Highway One on the southeastern portion of the parcel.

A variance has been requested to reduce the rear yard setback from 20 feet to 15 feet along the westerly property line. The applicants state that the variance is necessary for a residence to be developed on the site that is similar in size to surrounding residences and has similar coastal views.

The project site is adjacent to the coastal bluff and contains wetlands in the central portion of the parcel. The proposed storm drainage system is designed to convey runoff from the residence away from the bluff, to the eastern portion of the site. The runoff would be collected from the residence and associated impervious surfaces and from a drainage ditch which would be constructed along the north property boundary. It would be pumped to a series of leaching chambers on the eastern portion of the site, located on the north and south side of the wetland area. The applicants also propose to construct a 100' long, 18" high earthen berm to the east of the proposed residence. The berm is proposed to protect the residence from potential flooding caused by the wetland area and the redirected storm drainage.

The primary septic leachfield is proposed northwest of the residence. The replacement leachfield is located to the southeast of the residence partially under the proposed earth berm. Telephone, water, and gas lines are proposed to be located underground adjacent to the southern boundary line. Access to the site is via a shared driveway located parallel to the north property line in an easement on the adjacent parcel.

LOCAL COASTAL PROGRAM CONSISTENCY RECOMMENDATION FOR CDP #102-98/CDV #17-98: As proposed, the project is inconsistent with the applicable goals and policies of the Local Coastal Program relating to Environmentally Sensitive Habitat Areas, as described below.

Land Use. Single family residences are a principal permitted use in the Rural Residential zoning district. Setbacks for this parcel are 20 feet for front and rear yards and six feet on the sides. The applicant has requested a variance to reduce the rear yard setback from 20 feet to 15 feet. Staff recommends denial of the variance request, as explained under the discussion of CDV#17-98, below.

Special Condition #3 is recommended as a condition of Coastal Development Permit approval, requiring submittal of new site plans, floor plans and elevations which eliminate the portions of the house located within the 20-foot rear yard setback. This is required, rather than relocating the residence, because of the constraints of the septic system, drainage improvements and environmentally sensitive habitat areas.

The maximum building height in "non-highly scenic" areas west of Highway One is 28 feet above finished grade. The maximum height of the proposed residence as measured from finished grade is 16

STAFF REPORT FOR
STANDARD COASTAL DEVELOPMENT PERMIT &
COASTAL DEVELOPMENT VARIANCE

CDP#102-98/CDV#17-98
May 27, 1999
CPA-3

feet which is consistent with the maximum height prescribed by the CC&R's for the Collins Landing subdivision.

Public Access. The project site is a blufftop lot and is not designated for coastal access in the LCP. There is no evidence of prescriptive public access trails on the property. Public coastal access is available ¼ mile north of the site at Getchell Cove (Serenisea) and 1± mile north of the site at Fish Rock Beach (Anchor Bay Campground). The project would not adversely affect coastal access and no further mitigations are necessary.

Hazards. The site is located on a coastal bluff and is subject to potential hazards associated with coastal erosion. The following policies of the Mendocino County LCP apply to this project:

Coastal Element Policy 3.4-9 states:

"Any new development landward of the blufftop setback shall be constructed so as to ensure that surface and subsurface drainage does not contribute to the erosion of the bluff face or to the instability of the bluff itself."

Section 20.500.020 (B)(1) of the Mendocino County Coastal Zoning Code states:

"New structures shall be setback a sufficient distance from the edges of bluffs to ensure their safety from bluff erosion and cliff retreat during their economic life spans (75 years). New development shall be setback from the edge of bluffs a distance determined from information derived from the required geological investigation..."

An update of Field Engineering Associates, Inc. Geotechnical Investigation (1986) was performed by BACE Geotechnical on August 22, 1994. The update concludes:

"...the site remains suitable for a single-family dwelling. A relatively safe bluff setback of 25 feet (in conjunction with a drilled pier foundation) would be based upon a more than worst case erosion rate of one inch per year for 75 years. (The considered economic lifespan of a house) multiplied by a safety factor of four. This agrees with FEA's recommended setback."

"...drain water should be conducted to a discharge point(s) along the east side of the residence. Care should be taken so that runoff water from the discharge point(s) does not flow toward the primary leach bed."

The residence maintains a 25-foot setback from the top of the bluff and therefore complies with the recommendation of the geotechnical study.

The drainage system would divert water from the area which is proposed for the primary leach field, however, it may raise groundwater levels in the vicinity of the proposed replacement leach field. Jim Ehlers, Department of Environmental Health, commented on the project as follows:

"The final plot plan submitted to this office, copy enclosed, satisfies this office and our concerns re: septic layout and changes to the dwelling. I do have concerns with the drain water deposition system; however, my concerns are more general than specific. My concern is that pumping water

STAFF REPORT FOR
STANDARD COASTAL DEVELOPMENT PERMIT &
COASTAL DEVELOPMENT VARIANCE

CDP#102-98/CDV#17-98
May 27, 1999
CPA-4

back up to the wetlands area will artificially raise groundwater levels and may invalidate the replacement leach field area. I do not know of a way to measure this potential problem, and include it in my comments as a potential problem only."

A special condition is recommended which requires the applicant to obtain approval of the septic system from the Environmental Health Department prior to issuance of the coastal permit. Further discussion of the proposed drainage system is included under "Natural Resources," below.

Visual Resources. The project is not located in a designated "highly scenic area," but is located within an area which is designated for tree removal. Policy 3.5.1 of the Mendocino County Coastal Element applies to all parcels within the coastal zone and states:

"Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas ..."

The building site is located approximately 250 feet west of Highway One and views of the site from the highway will be partially screened by intervening vegetation. The proposed residence is one-story in height and would be clad with 1"x 6" horizontal re-sawn redwood siding. Roofing is to be "Heather Brown" fiberglass shingles. The plans show all exterior colors to be natural brown or gray. The materials are earth-toned, would blend in hue and brightness with the setting, and would be visually compatible with the character of surrounding area. Special Condition #1 requires approval of the actual colors by the Coastal Permit Administrator prior to issuance of the coastal development permit.

Section 20.504.025 of the Coastal Zoning Code states:

Other areas of visual significance include special treatment areas shown on the Land Use Map and a 200 foot minimum designated scenic corridor along both sides of Highway 1 from Ten Mile River to the Sonoma County line not shown on the Land Use Map. The designated width of this corridor is a minimum of two hundred (200) feet running parallel to Highway One...measured from the shoulder of the road."

The applicant has stated that placement of the propane tank with the scenic corridor is necessary for efficient servicing. Special Condition #2 recommends that the propane tank be screened and that it be relocated in such a way that it can be serviced from the existing driveway entry, rather than requiring development of a new service pad and driveway encroachment off of Highway 1. Special Condition #2 also requires that the flag pole be eliminated or relocated outside of the 200-foot scenic corridor to a location near the residence.

Section 20.504.035 (A) (2) of the Coastal Zoning Code states:

"Where possible, all lights, whether installed for security, safety or landscape design purposes, shall be shielded or shall be positioned in a manner that will not shine light or allow light glare to exceed the boundaries of the parcel on which it is placed."

STAFF REPORT FOR
STANDARD COASTAL DEVELOPMENT PERMIT &
COASTAL DEVELOPMENT VARIANCE

CDP#102-98/CDV#17-98

May 27, 1999

CPA-5

The plan indicates that shielded light fixtures would be located at all exits. The applicant has submitted fixture details which will ensure that lighting is downcast. Therefore, the project is consistent with this requirement.

Natural Resources. Wetlands Research Associates, Inc. (WRA) prepared a Jurisdictional Wetlands Delineation in September, 1997. The delineation resulted in the identification of approximately 0.07 acres of wetlands within the depression in the central portion of the parcel. According to the report, this area has the potential to be classified as jurisdictional wetlands under the criteria of the Corps of Engineers and Coastal Commission and meets the definition of an Environmentally Sensitive Habitat Area (ESHA) as defined in the Coastal Zoning Code. This area is delineated on the constraints map (See Exhibit E). Chapter 20.496 and Section 20.532.060, et. seq. of the Coastal Zoning Code contain specific requirements for protection of ESHA's and development within the buffer area of an ESHA. A sufficient buffer area is required to be established and maintained to protect ESHA's from disturbances related to proposed development. Section 20.496.020 requires that:

The width of the buffer area shall be a minimum of one hundred (100) feet, unless an applicant can demonstrate, after consultation and agreement with the California Department of Fish and Game, and County Planning staff, that one hundred (100) feet is not necessary to protect the resources of that particular habitat area from possible significant disruption caused by the proposed development. The buffer area shall be measured from the outside edge of the Environmentally Sensitive Habitat Areas and shall not be less than fifty (50) feet in width.

The wetlands investigation delineated a boundary for the wetlands and established a 50' buffer area. While the residence would be situated beyond the boundaries of the buffer area, the driveway, utilities, earthen berm, drainage ditch, drainage leaching chambers, and septic replacement area are all situated within the required ESHA buffer.

Development within ESHA buffer areas is permitted only in accordance with the following standards:

- (a) *Development shall be compatible with the continuance of the adjacent habitat area by maintaining the functional capacity, their ability to be self-sustaining and maintain natural species diversity.*
- (b) *Structures will be allowed within the buffer area only if there is no other feasible site available on the parcel.*
- (c) *Development shall be sited and designed to prevent impacts which would degrade adjacent habitat areas. The determination of the best site shall include consideration of drainage, access, soil type, vegetation, hydrological characteristics, elevation, topography, and distance from natural stream channels. The term "best site" shall be defined as the site having the least impact on the maintenance of the biological and physical integrity of the buffer strip or critical habitat protection area and on the maintenance of the hydrologic capacity of these areas to pass a one hundred (100) year flood without increased damage to the coastal zone natural environment or human systems.*
- (d) *Development shall be compatible with the continuance of such habitat areas by maintaining their functional capacity and their ability to be self-sustaining and to maintain natural species diversity.*

STAFF REPORT FOR
STANDARD COASTAL DEVELOPMENT PERMIT &
COASTAL DEVELOPMENT VARIANCE

CDP#102-98/CDV#17-98
May 27, 1999
CPA-6

- (e) *Structures will be allowed within the buffer area only if there is no other feasible site available on the parcel. Mitigation measures, such as planting riparian vegetation, shall be required to replace the protective values of the buffer area on the parcel, at a minimum ratio of 1:1, which are lost as a result of development under this solution.*
- (f) *Development shall minimize the following: impervious surfaces, removal of vegetation, amount of bare soil, noise, dust, artificial light, nutrient runoff, air pollution, and human intrusion into the wetland and minimize alteration of natural land forms.*

Development is not permitted in an ESHA unless the following findings can be made:

1. *The resource as identified will not be significantly degraded by the proposed development.*
2. *There is no feasible less environmentally damaging alternative.*
3. *All feasible mitigation measures capable of reducing or eliminating project related impacts have been adopted.*

Staff does not believe that sufficient documentation has been submitted by the applicant to substantiate these required findings. It is possible that the size and configuration of the existing wetland will be affected by this project due to (a) the amount of site work proposed within the buffer area, (b) the additional runoff that will be conveyed via the drainage system into the area surrounding the wetland and the natural flow of surface water will be blocked by the placement of the berm east of the residence and any overflow will be concentrated and directed around the north and south of the berm. No analyses have been submitted by the wetland consultant and the drainage engineer to address the impacts of these improvements within the 50-foot buffer area.

Possible less environmentally damaging alternatives which could minimize the impacts and the development within the ESHA buffer include the following:

- a) Reduce the size of the residence thereby reducing the amount of storm water disposal adjacent to the wetlands.
- b) Redesign the drainage system to reduce the amount of leaching chamber area needed.
- c) Relocate or concentrate the proposed leaching chambers in one area rather than on both sides of the ESHA.
- d) Install a larger holding tank and/or pump chamber to reduce the length of leaching chambers needed.
- e) Eliminate the earth berm and raise the residence on piers to allow for the natural sheet flow of drainage.

State Planning law no longer allows discretionary permits to be approved with conditions for future subjective studies to resolve outstanding issues. As such, prior to taking action on this project, staff recommends that the Coastal Permit Administrator require the applicant to submit the following information:

- (1) An additional report from the engineer which identifies alternative ways of addressing site drainage issues. Specifically, the engineer should attempt to design a system which minimizes disturbance

STAFF REPORT FOR
STANDARD COASTAL DEVELOPMENT PERMIT &
COASTAL DEVELOPMENT VARIANCE

CDP#102-98/CDV#17-98
May 27, 1999
CPA-7

within the ESHA buffer area. The engineer should also address requirements for long-term maintenance of the drainage improvements, and in conjunction with the wetlands biologist, assess the potential for failure of the system should the wetlands area be enlarged due to increased groundwater.

- (2) An additional report from the wetlands biologist that identifies potential impacts within the ESHA and ESHA buffer area. A restoration plan shall be prepared which identifies mitigation measures to replace the protective values of the buffer area, at a minimum ratio of 1:1.

In addition to the above, Special Condition #2 reduces the intrusion of development within the ESHA buffer by requiring that the proposed underground utility lines be relocated to the north side of the property, where ground disturbance associated with the proposed drainage improvements is also proposed.

Archaeological/Cultural Resources. This project was referred to the Northwest Information Center of the California Historical Resources Inventory at Sonoma State University (SSU) for an archaeological records search. SSU responded that the proposed project area has the possibility of containing unrecorded archaeological sites and further study was recommended. The Mendocino County Archeological Commission determined that no survey is required. The applicant is advised by Standard Condition #8 of the County's "discovery clause" which establishes procedures to follow should archaeological materials be unearthed during project construction.

Groundwater Resources. The site is located within an area mapped as Critical Water Resources. The proposed residence would be served by the North Gualala Water Company, a community water system. The applicant has submitted a drainage plan prepared by David Paoli, P.E. The plan proposes to collect the storm runoff from the residence and the easterly portions of the property and to pump it into nine leaching chambers on the eastern portion of the property surrounding the wetland area. Under this design, it is anticipated that the amount of groundwater will increase on this parcel. As discussed above, additional information regarding the proposed drainage improvements, and possible alternative designs, is necessary prior to action on this coastal permit.

Transportation/Circulation. The project would contribute incrementally to the cumulative increase in traffic volumes on Highway One and local roadways. Traffic impacts were considered when the property was designated for residential use in the Mendocino County General Plan. The project would utilize an existing driveway encroachment onto Highway One. Caltrans commented that an all-weather service pad would need to be constructed for servicing the proposed propane tank. Relocation of the propane tank to an area adjacent to the existing driveway would eliminate the need for this additional encroachment and site disturbance. Special Condition # 2 requires that the propane tank be relocated closer to the driveway.

Zoning Requirements. Until the impacts to the wetlands are fully addressed and alternatives to the proposed storm drainage system are considered, the findings of consistency with the zoning requirements cannot be made.

RECOMMENDED ACTION FOR CDP #102-98: Staff recommends that the Coastal Permit Administrator CONTINUE THE HEARING on CDP #102-98 to allow the applicant an opportunity to address the outstanding issues regarding the drainage system and the wetland impacts. The following

STAFF REPORT FOR
STANDARD COASTAL DEVELOPMENT PERMIT &
COASTAL DEVELOPMENT VARIANCE

CDP#102-98/CDV#17-98
May 27, 1999
CPA-8

information is necessary to analyze the project's impacts on the wetland area resulting from the drainage design:

- (1) An additional report from the engineer which identifies alternative ways of addressing site drainage issues. Specifically, the engineer should attempt to design a system which minimizes disturbance within the ESHA buffer area. The engineer should also address requirements for long-term maintenance of the drainage improvements, and in conjunction with the wetlands biologist, assess the potential for malfunction or failure of the leaching chamber system should the wetlands area be enlarged due to increased groundwater.
- (2) An additional report from the wetlands biologist that identifies potential impacts within the ESHA and ESHA buffer area pursuant to requirements established in Chapter 20.496 of the Coastal Zoning Code. A restoration plan shall be prepared which identifies mitigation measures to replace the protective values of the buffer area, at a minimum ratio of 1:1.
- (3) The design changes indicated in recommended Special Conditions #2 and #3 shall be incorporated into the site plans prior to the supplemental drainage and wetland analyses.

VARIANCE TO REQUIRED SETBACKS - CDV #17-98.

The applicant has requested a variance to reduce the rear (westerly) lot line from 20 feet to 15 feet along the westerly property line. The applicants maintain that the variance is necessary in order for a residence to be developed on the site that is similar in size to surrounding residences and has similar coastal views. As stated in the application:

"Even with this variance, the applicant will be able to view the coast and near-coast ocean from only approximately 55% of the enclosed space of the proposed structure (50% without the variance)."

Section 20.540.020 of the Coastal Zoning Code requires that the approving authority make all of the following findings prior to granting variances within the Coastal Zone:

- A. That there are special circumstances applicable to the property involved, including size shape, topography, location or surroundings.*

The project site is less than one acre in size and is constrained by several factors including: the presence of wetlands and the required ESHA buffer area; high groundwater levels affecting septic locations; required coastal bluff setback; prescribed front, rear and side yard setbacks; and the 16' height limit prescribed by the CC&R's.

However, the residence and garage/workshop have a combined footprint of approximately 3,541 square feet. The structures could be reduced in size to meet the setback requirements of the zoning district. Therefore, this finding cannot be made.

STAFF REPORT FOR
STANDARD COASTAL DEVELOPMENT PERMIT &
COASTAL DEVELOPMENT VARIANCE

CDP#102-98/CDV#17-98

May 27, 1999

CPA-9

B. That such special circumstances or conditions are not due to any action of the applicant subsequent to the application of the zoning regulations contained in the Division and applicable policies of the Coastal Element.

The setback requirements were in place before the proposed residence was designed. Therefore, this finding cannot be made.

That such variance is necessary for the preservation and enjoyment of privileges possessed by other property in the same vicinity and zone and denied to the property in question because of special circumstances identified in Subsection (A).

A scenic view is not a privilege as referenced in this finding but is a qualitative, site-specific amenity. Every property is afforded different levels of ocean views based on the property's location and constraints. Some parcels have spectacular ocean views and some have minimal or no ocean views. Maximizing scenic views for a particular parcel does not override setback requirements of the Zoning Code and is irrelevant to the basic "privilege" of developing the parcel with a residence meeting the required setbacks as was required for the surrounding properties. Nevertheless, a residence could be designed that meets the setback requirements and still provide for ocean views from inside the house. Therefore, this finding cannot be made.

D. That the granting of such variance will not be materially detrimental to the public welfare or injurious to the property in the same vicinity and zone in which the property is located.

The property owner to the northwest has expressed concern that by granting the variance, the proposed residence will encroach upon the root system of an existing cypress tree near the bluff on the neighboring property and weaken the cohesion of the soil thereby increasing the potential for increase bluff erosion. The relocation of the residence to meet the required setback could alleviate some of the potential impact on the root system of the cypress. However, according to the geotechnical reports for this project and the site containing the tree, the recommended setbacks included a safety factor of four and five times the minimum required by County ordinance. As such, the retention or removal of the tree would not significantly threaten the proposed structure or the structures on the neighboring parcel. Therefore, this finding can be made.

E. That the variance does not authorize a use or activity that is not otherwise expressly authorized by the zoning provisions governing the parcel.

Since this is a simple setback variance, it does not authorize a use or activity that is prohibited by the zoning provisions of the Rural Residential district. Therefore, this finding can be made.

F. That the granting of such variance is in conformity with all other provisions of this Division and the Mendocino Coastal Element and applicable plans and policies of the Coastal Act.

Staff did not identify any other provisions of the County Coastal Zoning Code, Coastal Element or the Coastal Act which conflict with the requested variance. Therefore, this finding can be made.

RECOMMENDED ACTION FOR CDV #17-98: Staff recommends that the Coastal Permit Administrator DENY the proposed coastal development variance request. The required findings for approval of a variance cannot be substantiated.

FINDINGS FOR DENIAL OF THE VARIANCE:

1. There are no special circumstances applicable to the property involved, including size shape, topography, location or surroundings; and
2. Such special circumstances or conditions are due to action of the applicant subsequent to the application of the zoning regulations contained in the Division and applicable policies of the Coastal Element; and
3. Such variance is not necessary for the preservation and enjoyment of privileges possessed by other property in the same vicinity and zone and denied to the property in question because of special circumstances identified in Subsection (A).

FINDINGS FOR APPROVAL OF COASTAL DEVELOPMENT PERMIT:

Although staff is not recommending approval of the project at this time, the following findings will have to be made before the project is approved:

1. The proposed development is in conformity with the certified Local Coastal Program; and
2. The proposed development will be provided with adequate utilities, access roads, drainage and other necessary facilities; and
3. The proposed development is consistent with the purpose and intent of the applicable zoning district, as well as all other provisions of Division II, and preserves the integrity of the zoning district; and
4. The proposed development, if constructed in compliance with the conditions of approval, will not have any significant adverse impacts on the environment within the meaning of the California Environmental Quality Act; and
5. The proposed development will not have any adverse impacts on any known archaeological or paleontological resource; and
6. Other public services, including but not limited to, solid waste and public roadway capacity have been considered and are adequate to serve the proposed development; and
7. The proposed development is in conformity with the public access and public recreation policies of Chapter 3 of the California Coastal Act and Coastal Element of the General Plan.

STAFF REPORT FOR
STANDARD COASTAL DEVELOPMENT PERMIT &
COASTAL DEVELOPMENT VARIANCE

CDP#102-98/CDV#17-98
May 27, 1999
CPA-11

8. The resource as identified will not be significantly degraded by the proposed development.
9. There is no feasible less environmentally damaging alternative.
10. All feasible mitigation measures capable of reducing or eliminating project related impacts have been adopted.

RECOMMENDED CONDITIONS FOR APPROVAL OF THE COASTAL DEVELOPMENT PERMIT:

The following conditions of approval are provided for informational purposes only. These are the anticipated conditions that would be applicable upon resolution of the drainage and environmentally sensitive habitat area issues. Ultimately, the final recommended conditions will depend on the solution to the drainage and environmentally sensitive habitat area issues.

STANDARD CONDITIONS:

1. This action shall become final on the 11th day following the decision unless an appeal is filed pursuant to Section 20.544.015 of the Mendocino County Code. The permit shall become effective after the ten (10) working day appeal period to the Coastal Commission has expired and no appeal has been filed with the Coastal Commission. The permit shall expire and become null and void at the expiration of two years after the effective date except where construction and use of the property in reliance on such permit has been initiated prior to its expiration.

To remain valid, progress towards completion of the project must be continuous. The applicant has sole responsibility for renewing this application before the expiration date. The County will not provide a notice prior to the expiration date.

2. The use and occupancy of the premises shall be established and maintained in conformance with the provisions of Division II of Title 20 of the Mendocino County Code.
3. The application, along with supplemental exhibits and related material, shall be considered elements of this permit, and that compliance therewith is mandatory, unless an amendment has been approved by the Coastal Permit Administrator.
4. That this permit be subject to the securing of all necessary permits for the proposed development from County, State and Federal agencies having jurisdiction.
5. The applicant shall secure all required building permits for the proposed project as required by the Building Inspection Division of the Department of Planning and Building Services.

STAFF REPORT FOR
STANDARD COASTAL DEVELOPMENT PERMIT &
COASTAL DEVELOPMENT VARIANCE

CDP#102-98/CDV#17-98
May 27, 1999
CPA-12

6. This permit shall be subject to revocation or modification upon a finding of any one (1) or more of the following:
 - a. That such permit was obtained or extended by fraud.
 - b. That one or more of the conditions upon which such permit was granted have been violated.
 - c. That the use for which the permit was granted is so conducted as to be detrimental to the public health, welfare or safety or as to be a nuisance.
 - d. A final judgment of a court of competent jurisdiction has declared one (1) or more conditions to be void or ineffective, or has enjoined or otherwise prohibited the enforcement or operation of one (1) or more such conditions.
7. This permit is issued without a legal determination having been made upon the number, size or shape of parcels encompassed within the permit described boundaries. Should, at any time, a legal determination be made that the number, size or shape of parcels within the permit described boundaries are different than that which is legally required by this permit, this permit shall become null and void.
8. If any archaeological sites or artifacts are discovered during site excavation or construction activities, the applicant shall cease and desist from all further excavation and disturbances within one hundred (100) feet of the discovery, and make notification of the discovery to the Director of the Department of Planning and Building Services. The Director will coordinate further actions for the protection of the archaeological resources in accordance with Section 22.12.090 of the Mendocino County Code.

SPECIAL CONDITIONS:

1. Prior to issuance of the coastal development permit, the applicant shall submit for the review and approval of the Coastal Permit Administrator, color samples of all exterior finishes of the residence.
2. Prior to issuance of the coastal development permit, the applicant shall submit for the review and approval of the Coastal Permit Administrator, a revised site plan which:
 - Relocates the utility lines adjacent to the northern property boundary.
 - Relocates the propane tank closer to the driveway so that it can be serviced from the driveway.
 - Eliminates the portion of the house within the 20 foot rear yard setback,
 - Eliminates or relocates the flag pole away from Highway One outside the 200-foot scenic corridor, measured from the western edge of the highway.
 - Provides visual screening surrounding the propane tank.

STAFF REPORT FOR
STANDARD COASTAL DEVELOPMENT PERMIT &
COASTAL DEVELOPMENT VARIANCE

CDP#102-98/CDV#17-98

May 27, 1999

CPA-13

3. Prior to issuance of the coastal development permit, the applicant shall submit for the review and approval of the Coastal Permit Administrator, revised site plans, floor plans and building elevations reflecting the elimination of the portion of the house within the rear yard setback.
4. All recommendations within the geotechnical investigations by Field Engineering Associates, Inc. (1986) and BACE Geotechnical, (August 22, 1994), shall be incorporated into the design and construction of the residence.
5. Prior to any site development activities, temporary fencing shall be installed at the perimeter of the wetland area. Construction activities including vegetation removal, excavation, materials or equipment storage shall not be permitted the wetland area.
6. All exterior building materials and finishes shall match those specified in the coastal development permit application. Windows shall be made of non-reflective glass.

Staff Report Prepared By:

5/21/99
Date

Doug Zanini
Doug Zanini
Coastal Planner

Attachments: Exhibit A- Location Map
Exhibit B- Site Plan
Exhibit C- Floor Plans
Exhibit D- Elevations
Exhibit E- Site Constraints Map

Appeal Period: 10 days

Appeal Fee: \$555

CDP #102-98/CDV #17-98

May 27, 1999

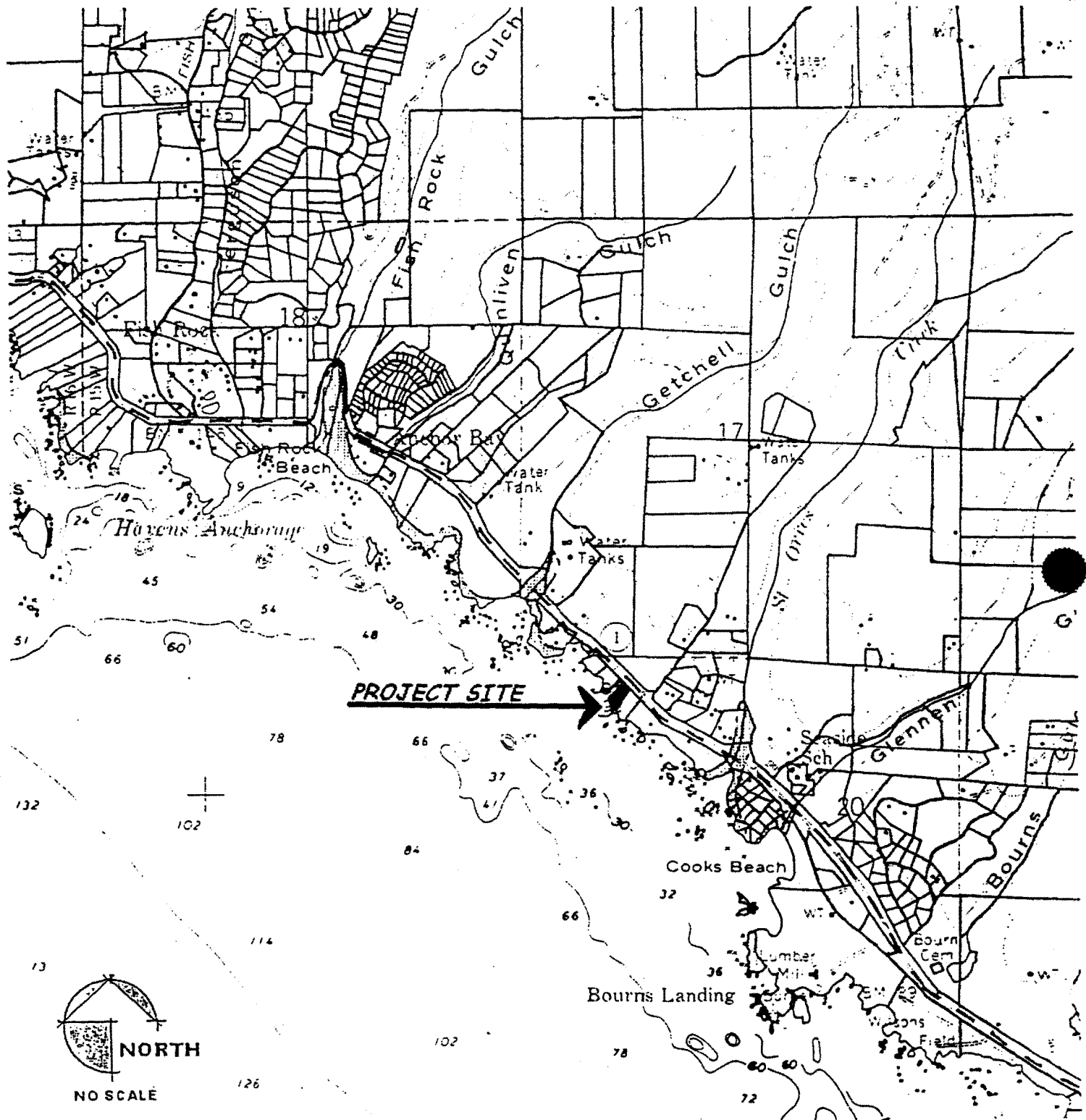
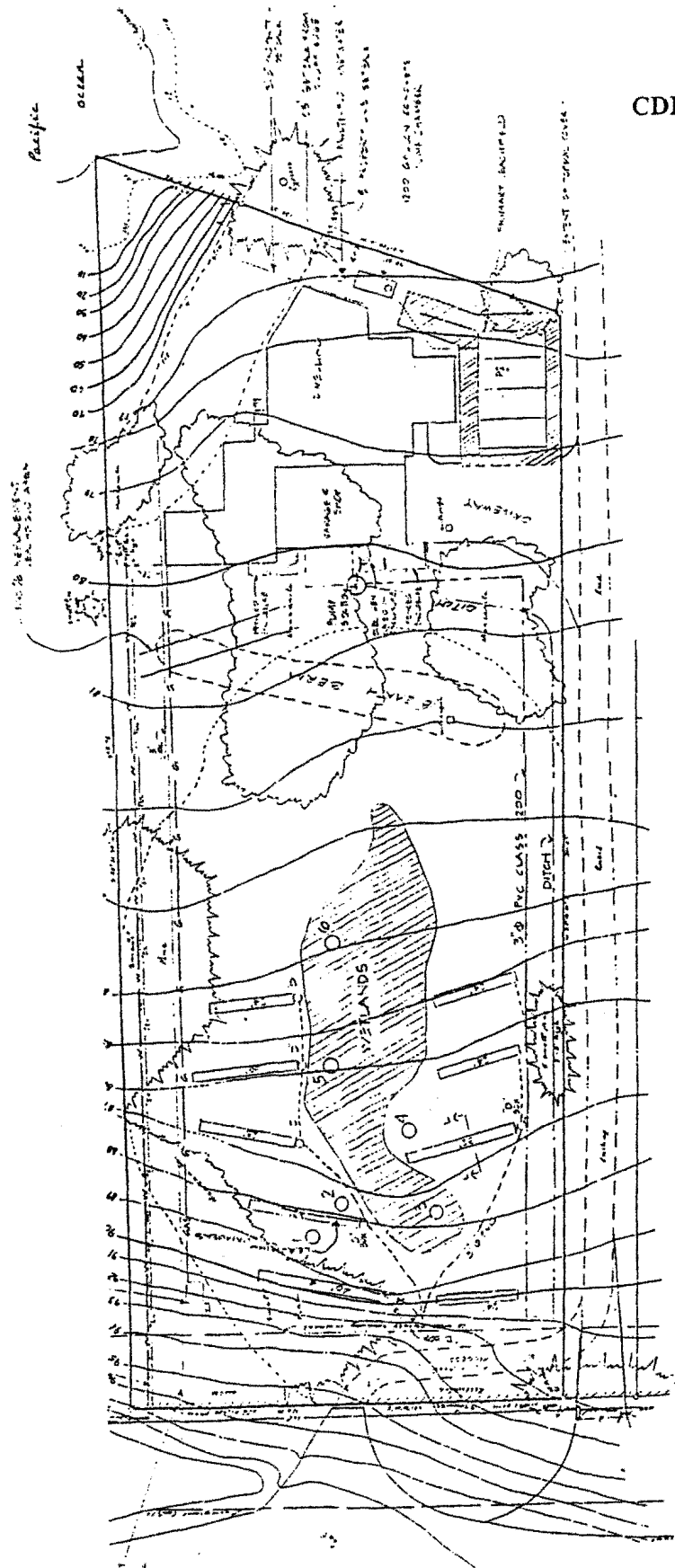


EXHIBIT A

LOCATION MAP



SITE PLAN

CDP #102-98/CDV #17-98
May 27, 1999

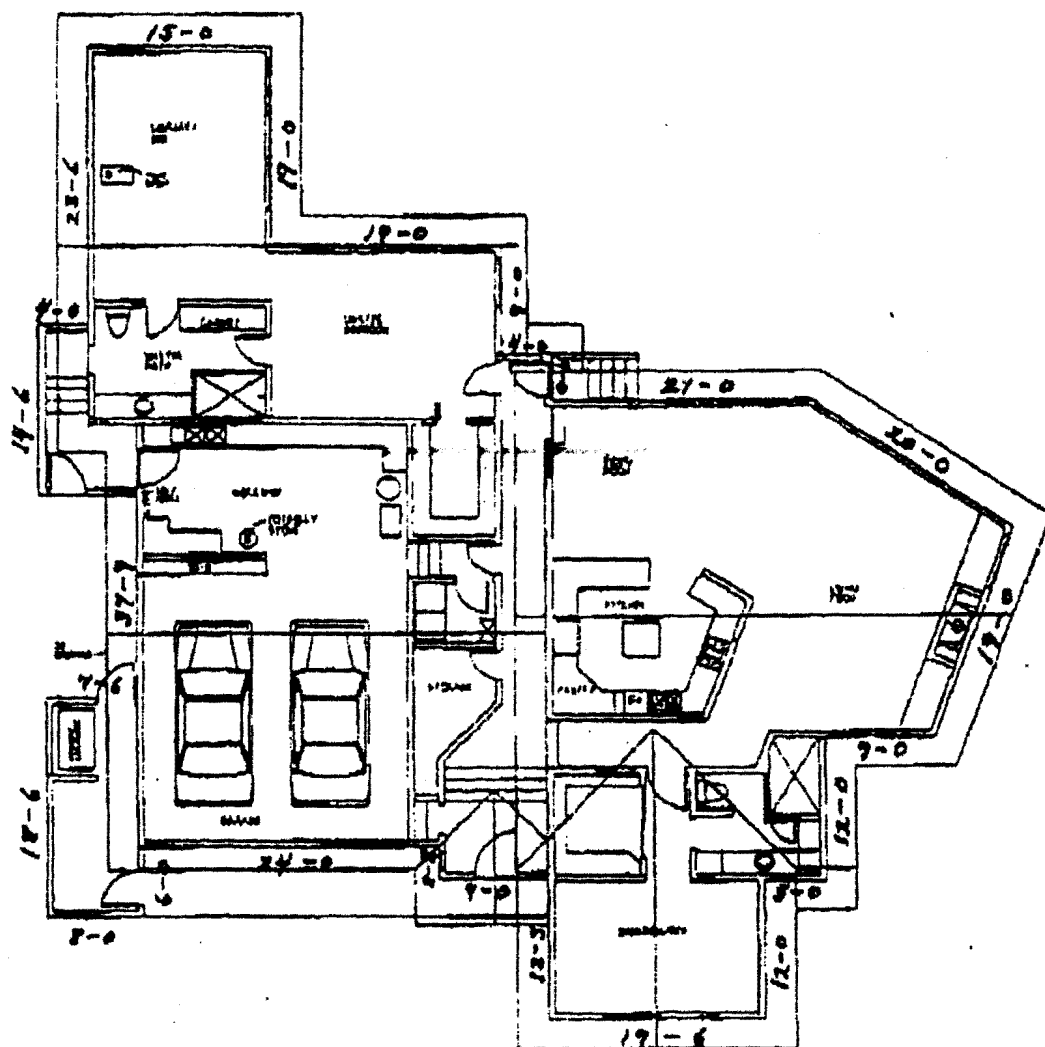
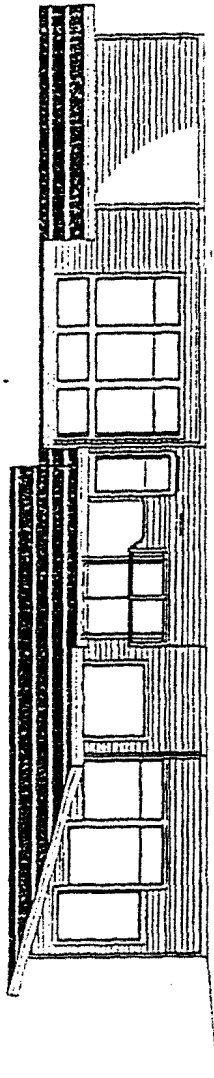
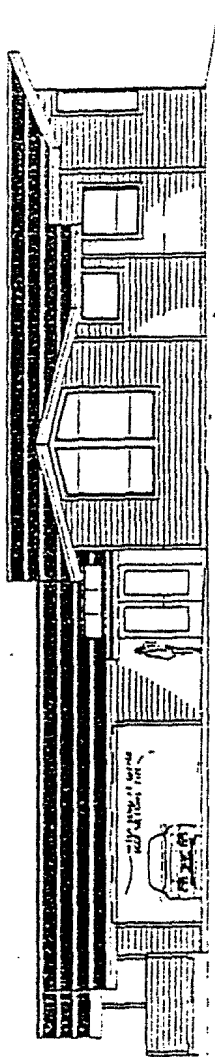


EXHIBIT C

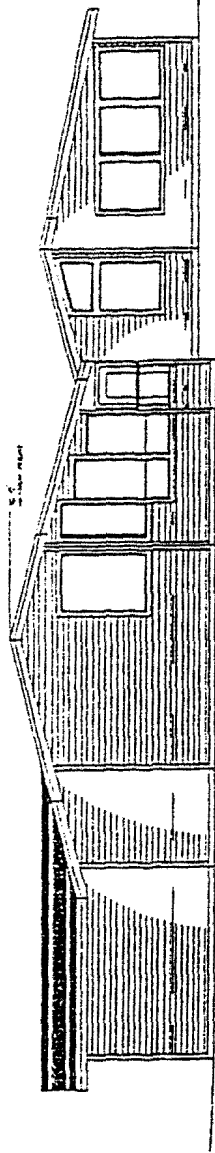
FLOOR PLAN



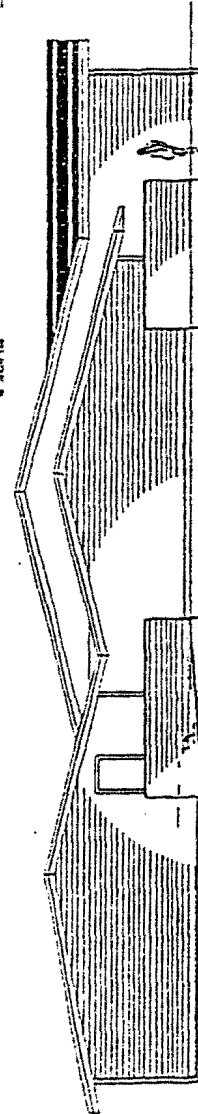
southeast elevation



northwest elevation

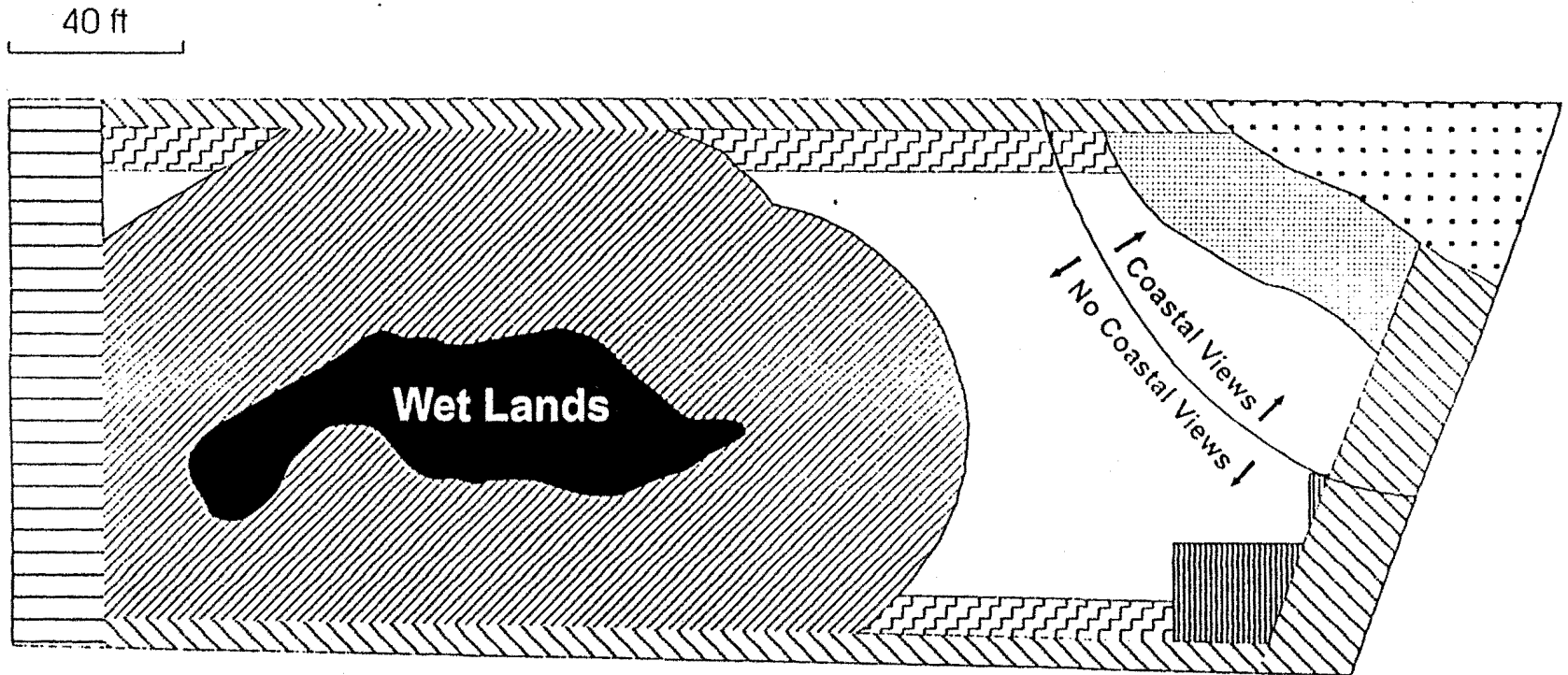


southwest elevation

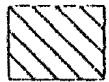


northeast elevation

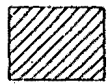
CDP#102-98/CDV #17-98
May 27, 1999



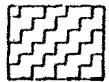
Bluff and Pacific Ocean



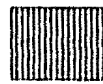
Zoning Setbacks



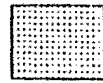
50' Minimum Setback from Wetlands



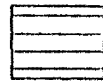
CC&R 15' Setback



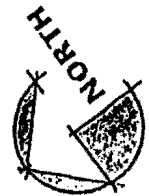
Primary Leach Field



25' Minimum Setback from Bluff Edge



20' Easement for Access



CDP #102-98/CDV #17-98
May 27, 1999

Planning & Building Services
790 South Franklin Street
Fort Bragg, CA 95437
707 964-5379 (tel)
707 961-2427 (fax)

Mendocino County MEMORANDUM

TO: Raymond Hall, Coastal Permit Administrator
FROM: Doug Zanini, Project Coordinator *DZ*
DATE: September 7, 1999
SUBJECT: CDP #102-98/CDV #17-98 DeMartini

This project was continued from the May 27, 1999 CPA hearing to allow the applicant to address issues regarding the treatment of the wetland area as defined by Wetlands Research Associates, Inc. and the storm drainage design. With regard to the small wetland in the middle of the site, the concern was that there was too much disturbance within the buffer area which had the potential to significantly alter the wetland. The concept of the leaching chambers raised several issues with regard to its impact on the wetland area and its functioning when the ground is saturated.

Based on the revised plans the new project description is as follows:

Construction of a 2,642± square foot single family residence with an attached 786 square foot± garage/workshop. Maximum building height to be 17.3 feet. Construction of a pump station/sprinkler system with a 1200 gallon underground tank to distribute storm water. Sprinkler system requires approximately 310 square feet of surface area to be excavated during construction. Construction of 100' long, 18" high earthen berm. Installation of a generator pad, a septic system, propane tank and a 25-foot tall flag pole. Underground extension of all utilities along the north property line.

The staff report lists three actions that were required to fully address the potential environmental impacts of the project. These are:

- (1) An additional report from the engineer which identifies alternative ways of addressing site drainage issues. Specifically, the engineer should attempt to design a system which minimizes disturbance within the ESHA buffer area. The engineer should also address requirements for long-term maintenance of the drainage improvements, and in conjunction with the wetlands biologist, assess the potential for malfunction or failure of the leaching chamber system should the wetlands area be enlarged due to increased groundwater.
- (2) An additional report from the wetlands biologist that identifies potential impacts within the ESHA and ESHA buffer area pursuant to requirements established in Chapter 20.496 of the Coastal Zoning Code. A restoration plan shall be prepared which identifies mitigation measures to replace the protective values of the buffer area, at a minimum ratio of 1:1.

- (3) The design changes indicated in recommended Special Conditions #2 and #3 shall be incorporated into the site plans prior to the supplemental drainage and wetland analyses.

Special Condition #2 states:

Prior to issuance of the coastal development permit, the applicant shall submit for the review and approval of the Coastal Permit Administrator, a revised site plan which:

- *Relocates the utility lines adjacent to the northern property boundary,*
- *Relocates the propane tank closer to the driveway so that it can be serviced from the driveway,*
- *Eliminates the portion of the house within the 20 foot rear yard setback,*
- *Eliminates or relocates the flag pole away from Highway One outside the 200-foot scenic corridor, measured from the western edge of the highway.*
- *Provides visual screening surrounding the propane tank.*

Special Condition #3 states:

Prior to issuance of the coastal development permit, the applicant shall submit for the review and approval of the Coastal Permit Administrator, revised site plans, floor plans and building elevations reflecting the elimination of the portion of the house within the rear yard setback.

All the bulleted items listed in Special Condition #2 have been complied with except for the requirement that the portion of the house within the rear yard setback be eliminated. Special Condition #3 has not been satisfied. Staff continues to recommend denial of the variance request based on the previously stated analysis that the required findings cannot be made.

The applicant has chosen to move forward with the application without the changes required in Special Condition #3. As such, the discussion within the staff report regarding the variance and the recommendation for denial still stands. A relatively minor modification to the floor plan will allow the project to comply with the required setbacks while allowing for full residential use of the property. Granting a variance for the sole purpose of maximizing personal views sets a precedent which carries county-wide implications in disregarding setback requirements rather than designing a structure which fits within the constraints of a site.

The applicant has submitted a Review of Grading and Drainage Issues by BACE Geotechnical prepared on September 1, 1999. An analysis of wetland issues was prepared by Wetlands Research Associates on August 24, 1999. A report regarding the grading and drainage issues was prepared by Paoli Engineering and Surveying on August 19, 1999. In addition a new site plan dated August 18, 1999 was prepared which includes the proposed changes in the project design.

The project engineer has prepared additional options to reduce the disturbance within the ESHA buffer by the following methods:

- Decreasing runoff to the pump station by eliminating the proposed ditch along the existing rocked access road. Roof runoff on the west and south side of the house is proposed to be

discharged to splash blocks on the west and south side of the house. According to the engineer's calculations this can decrease the roof runoff into the pump station to 2,340 square feet of area.

- Increasing pump station holding capacity to 1200 gallons would increase the holding capacity in the event of a severe downpour.
- Minimizing disturbance within the ESHA buffer area by installing a pump station/sprinkler system which would collect the runoff and pump it to a series of high-volume sprinkler heads and by placing underground utilities along the north property line.

Wetlands Research Associates, Inc. has provided further analysis of the revised project's impacts on the wetlands. The report states: "Operation of the sprinkler system will have no adverse affect on the wetland, buffer area, or adjacent areas. "...because the water is sprayed over such a wide area, there may be no measurable difference in water levels from existing conditions." "Underground utility lines will have no adverse affect on the ESHA or buffer area because they are underground." The report establishes a process of excavation, transplanting, soil protection, and berm construction which have been incorporated into the special conditions of approval for this project.

Recommendation:

Staff recommends denial of CDV #17-98 based on the findings and discussions herein and within the staff report.

It appears that the revised drainage plan minimizes the impact to the ESHA as compared with the leaching chamber plan. Qualified experts have stated that the revised project as designed will not significantly impact the wetland area. Provisions are recommended for the reestablishment of the natural vegetative community within the buffer area. Provisions have been included for the ongoing monitoring and maintenance of the edge of the bluff and for the drainage system. As long as the recommendations within the submitted reports are adhered to, the project would comply with the required findings for approval for CDP #102-98. Therefore, staff recommends approval of CDP #102-98 subject to the standard conditions within the staff report and the Special Conditions listed below.

SPECIAL CONDITIONS:

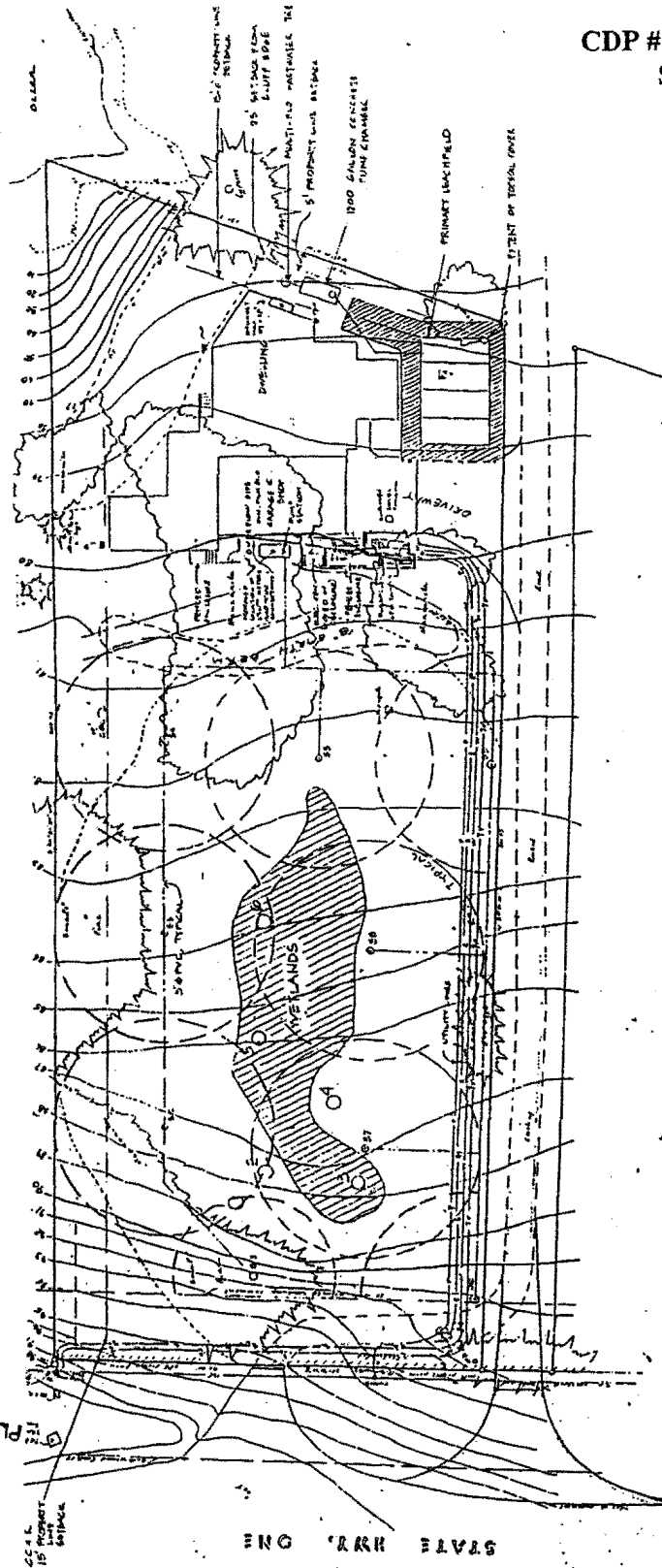
1. Prior to issuance of the coastal development permit, the applicant shall submit for the review and approval of the Coastal Permit Administrator, color samples of all exterior finishes of the residence.
2. Prior to issuance of the coastal development permit, the applicant shall submit for the review and approval of the Coastal Permit Administrator, revised site plans, floor plans and building elevations reflecting the elimination of the portion of the house within the rear yard setback.
3. All recommendations within the geotechnical investigations by Field Engineering Associates, Inc. (1986) and BACE Geotechnical, (August 22, 1994, and September 1, 1999) shall be incorporated into the design and construction of the residence.

Prior to issuance of the coastal development permit, the applicant shall submit a monitoring program for the bluff drainage conditions after the project is completed. A maintenance plan of bluff edge vegetation with drip irrigation during summer months shall be submitted for the review and approval of the Coastal Permit Administrator, prior to issuance of the coastal development permit.

4. Prior to any site development activities, temporary fencing shall be installed at the perimeter of the wetland area. Construction activities including vegetation removal, excavation, materials or equipment storage shall not be permitted the wetland area. All recommendations for development within the ESHA and buffer area by Wetland Research Associates, Inc. report dated August 24, 1999 shall be incorporated into the development of the property. All construction personnel shall be informed of the sensitivity to the ESHA and shall be required to follow procedures to minimize the disturbance within the ESHA buffer area.
5. After construction of the drainage system, there shall be no mowing, ornamental landscaping or other disturbance within 50 feet of the ESHA.
6. Development shall conform with the site plan dated August 18, 1999. All exterior building materials and finishes shall match those specified in the coastal development permit application. Windows shall be made of non-reflective glass.

CDP #102-98/CDP #17-98
September 23, 1999

RECEIVED
SEP 10 1999
PLANNING & BUILDING SERV.
FORT BRAGG, CA



JURISDICTIONAL WETLANDS DELINEATION

DeMARTINI PROPERTY
OLD COLLINS LANDING
GUALALA, CA

PREPARED FOR:

David DeMartini
11714 Spriggs Way
Houston, Texas 77024

PREPARED BY:

Wetlands Research Associates, Inc.
2169 East Francisco Blvd. Suite G
San Rafael, CA 94901

September 1997

EXHIBIT NO.	9
APPLICATION NO.	A-1-MEN-99-081
DeMartini	
Wetland Delineation Report (21 pages)	

1.0 INTRODUCTION

Wetlands Research Associates, Inc. was requested by David DeMartini, to determine whether any areas on a 0.93 acre Study Area (Lot 3; 36350 Highway One) at Old Collins Landing subdivision are wetlands (Figure 1). The Study Area is located north of Gualala, CA (one mile south of Anchor Bay) and is bounded on the northeast by State Route 1 and on the north, south and west by other subdivision lots. The southern corner of the site is at a bluff that overlooks the Pacific Ocean.

The lot is relatively level, but gradually slopes to the west. The lot is currently vacant, however, homes have been constructed on lots to the north and south. The site is vegetated with grasses, shrubs, and trees planted along portions of the south, east, and north boundary. There is a single depression in the eastern portion that was the primary focus for study as a potential wetland.

Federal jurisdiction

The Corps of Engineers has defined wetlands in the regulations it issued under Section 404 of the Clean Water Act as:

Those areas that are inundated or saturated by surface or ground waters at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

This report describes the field studies and office evaluation conducted by Wetlands Research Associates, Inc. to determine the presence or absence of wetland indicators used by the Corps of Engineers in making a determination whether any areas on this parcel are wetlands as defined by the Corps of Engineers. The three criteria used to delineate wetlands, which are stated in the *Corps of Engineers Wetlands Delineation Manual* (1987), are the presence of (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. According to the manual:

...[E]vidence of a minimum of one positive wetland indicator from each parameter (hydrology, soil and vegetation) must be found in order to make a positive wetland determination.

State jurisdiction

The California Coastal Act defines wetlands as:

"Wetland" means land within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens."

Generally, the Coastal Commission has utilized the same definition of wetlands adopted by the Department of Fish and Game. The Department's definition is the same as that used by the US Fish and Wildlife Service and requires the presence of wetland hydrology and one of three other attributes: wetland vegetation, undrained wetland (hydric) soils, or in the case of non-soils, saturated and covered with water. The Coastal Commission's definition, therefore, includes many non-vegetated areas such as mudflats, playas, and shallow water areas.

Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this classification wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes, (2) the substrate is predominantly undrained hydric soil, and (3) the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of each year.

In the Coastal Commission's discussion of technical criteria for identifying and mapping wetlands (Appendix D of the *Statewide Interpretive Guideline for Wetlands and Other Wet Environmentally Sensitive Habitat Areas*, it states that:

"...the single feature that most wetlands share is soil or substrate that is at least periodically saturated with or covered by water, and this is the feature used to describe wetlands in the Coastal Act. The water creates severe physiological problems for all plants and animals except those that are adapted for life in water or in saturated soil, and therefore only plants adapted to these wet conditions (hydrophytes) could thrive in these wet (hydric) soils. Thus, the presence or absence of hydrophytes and hydric soils make excellent physical parameters upon which to judge the existence of wetland habitat areas for the purposes of the Coastal Act, but they are not the sole criteria. In some cases, proper identification of wetlands will require the skills of a qualified professional."

The Department of Fish and Game does not have a manual for the delineation of wetlands and relies instead on the USFWS wetland system for identifying wetlands contained in Cowardin et al (1979). This study identified any additional areas that might qualify as wetlands using the USFWS definition based on observations of wetland hydrology and any of the other criteria used by the USFWS.

2.0 METHODS

2.1 Methodology

Prior to conducting field studies, available reference materials were reviewed. These included a preliminary report prepared by Mary Rhyne, Botanical Surveyor (letter dated June 7, 1997), soil profile information by Carl Rittiman (1993), and a geotechnical report by Field Engineering Associates, Inc. (1986).

Studies of soils, hydrology, and vegetation required for a wetland delineation were conducted on an August 4, 1997 site visit. Soil, hydrology, and vegetation were examined and the results recorded for use in a jurisdictional determination by the Corps of Engineers or the County of Mendocino based on the Coastal Commission criteria. Six sampling locations were established to determine the wetland-upland boundary. Data collected for each sampling site is given in Appendix A.

Once the wetland-upland boundary was determined, measurements of length and width of the area determined to be wetlands were taken. Distances were measured from three established property corner markers. These measurements were used to correctly position the wetland area on the topographic map through triangulation. The size of the wetland area was then determined by measuring the area on the topographic map using an electronic planimeter.

2.2 Soil criteria

An area exhibits a hydric soil characteristic if it is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions that favor growth and regeneration of hydrophytic vegetation. Soils formed over long periods of time under wetland (anaerobic) conditions sometimes possess certain characteristics which identify them as hydric soils. In the field, a shovel was used to collect soil samples below the A horizon (approximately 10 inches deep). Soils were examined for hydric characteristics, such as low chroma or indicators of long term inundation or saturation. Low chroma was determined from soil color notation using a Munsell soil color chart (Kollmorgen Corporation 1990).

2.3 Hydrology criteria

An area exhibits wetland hydrology characteristics if it is inundated or if the soil was saturated at a sufficient frequency and duration to support wetland vegetation during the growing season under normal circumstances. Evidence of wetland hydrology can include visible inundation or saturation, or indirect indicators such as oxidized root channels, algal mats, surface sediment deposits, drift lines, and others.

2.4 Vegetation criteria

Plant species identified were assigned a wetland status according to the U.S. Fish and Wildlife Service (Reed 1988) list of plant species that occur in wetlands. This wetland classification system is based on the expected frequency of occurrence of these plants in wetlands as follows:

OBL	Obligate, always found in wetlands	> 99% frequency
FACW	Facultative wetland, usually found in wetlands	67-99%
FAC	Facultative, equal in wetland or non-wetlands	34-66%
FACU	Facultative upland, usually found in non-wetlands	1-33%
UPL	Upland, not found in local wetlands	< 1%
NL	Not listed, considered upland	

Plants with OBL, FACW, and FAC classifications are considered wetland plants. In using the routine wetland delineation method described in the 1987 *Corps Manual*, the dominant plants in the area are listed. If the list consists of 50 percent or more of wetland classified plants, the wetland vegetation criterion is satisfied.

3.0 RESULTS

Three parameters are required in the determination of wetlands as defined by the Corps of Engineers. These parameters are the presence of hydric soils, wetland hydrology, and hydrophytic vegetation. Each must be present for the site to be considered a wetland (exceptions are made for recently disturbed areas in which certain parameters may be absent). For the Mendocino County (California Coastal Commission) jurisdiction, both wetland hydrology (as a prerequisite) and one of the following attributes are required: wetland vegetation or undrained wetland soils.

Soils. Soil on this parcel was, in general, a sandy loam with low chroma (2 and 1). Since coastal terrace soils often have low chroma due to their historic origin, the soils were examined for additional indicators in determining hydric soils, primarily those that indicate long term inundation or saturation. Soils determined to be in wetlands had low chroma and strong indicators of long and frequent inundation and/or saturation, such as strong redoximorphic features (oxidized channels and many distinct mottles) in the soil profile. Soils in areas determined to be uplands had redoximorphic features that were nonexistent, few and faint, or were found only deep in the soil profile (below the A horizon).

Hydrology. None of the site was inundated or saturated during the field study. However, the area determined to be wetlands was a topographic low area that had indirect indicators of wetland hydrology. Indicators of wetland hydrology observed in areas determined to be wetlands included oxidized channels in the soil profile and surface indicators of inundation, such as sediment deposits.

Vegetation. Dominant vegetation in areas with positive hydrologic indicators was wetland classified plants, such as panic grass (*Panicum accuminatum*) and slender hairgrass (*Deschampsia elongata*), both FACW classified plants. Dominant plant species in areas lacking positive hydrologic indicators were predominantly non-wetland classified plants or plants with less wetland affinity, such as sweet vernal grass (*Anthoxanthum odoratum*), a FACU classified plant, tall fescue (*Festuca arundinacea*), a FAC- classified plant, and Douglas' iris (*Iris douglasiana*) and cat' ear (*Hypochaeris radicata*), both not listed plants.

4.0 POTENTIAL JURISDICTION OF CORPS OF ENGINEERS AND MENDOCINO COUNTY

4.1 Potential Jurisdictional Wetlands

The potential jurisdictional wetland area, shown on the attached topographic map, was determined from positive indicators of hydric soil and wetland hydrology and the presence of wetland vegetation. This determination is based on the criteria of both the Corps of Engineers and Mendocino County. The position of the wetland area was determined by triangulation from established property corner markers. The estimated size of the wetland area by measurement using an electronic planimeter is 0.07 acres.

REFERENCES

- Department of the Army. 1987. Corps of Engineers Wetlands Delineation Manual. Department of the Army, Waterways Experiment Station, Vicksburg, MS 39180-0631.
- Kollmorgen Instrument Corporation. 1990. Munsell Soil Color Charts. Baltimore, MD. 17pp.
- Reed, P.B., 1988. National list of plant species that occur in wetlands: California (Region 0). U.S. Fish and Wildl. Serv. Biol. Rep. 88(26.10). 135 pp.

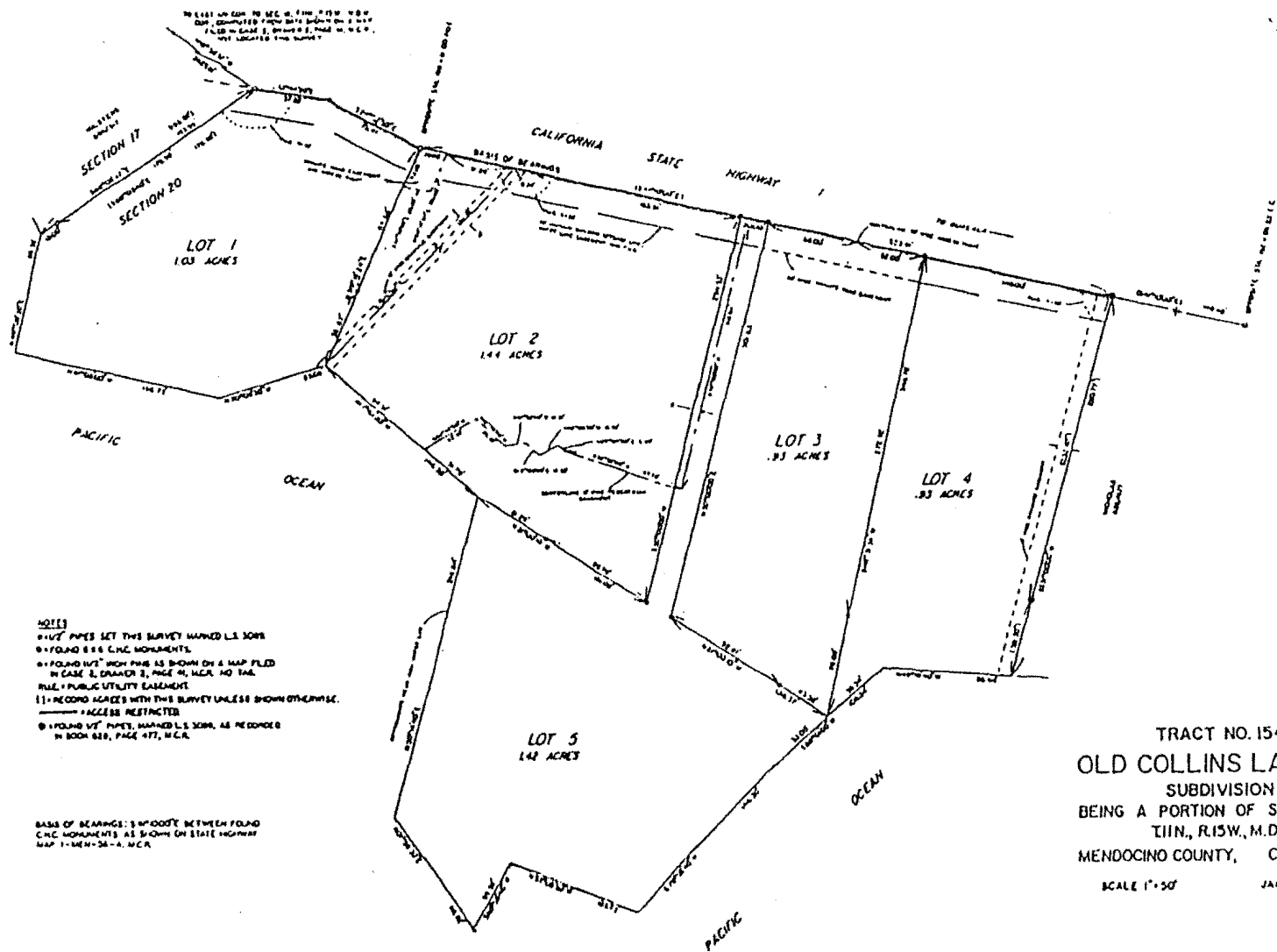


Figure 1. Location of DeMartini property (Lot 3) at Old Collins Landing, Mendocino County, CA.



Wetlands Research Associates, Inc.

APPENDIX A - SAMPLE LOCATIONS DATA FORMS

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Lot 3, Old Collins Landing</u> Applicant/Owner: <u>David DeMartini</u> Investigator: <u>Doug Spicher</u>	Date: <u>8/4/97</u> County: <u>Mendocino</u> State: <u>CA</u>
Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the area a potential Problem Area? <input checked="" type="radio"/> Yes <input type="radio"/> No (If needed, explain on reverse.) <u>Seasonal Wetland</u>	Community ID: <u>Upland</u> Transect ID: _____ Plot ID: <u>1</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. <u>Arthrocnemum ordatum</u>		<u>FACU</u>
2. <u>Trifolium douglasiana</u>		<u>NL</u>
3. _____		
4. _____		
5. _____		
6. _____		
7. _____		
8. _____		

Dominant Plant Species	Stratum	Indicator
9. _____		
10. _____		
11. _____		
12. _____		
13. _____		
14. _____		
15. _____		
16. _____		

Percent of Dominant Species that are OBL, FACW and/or FAC: (excluding FAC-): 0%

Remarks: also present: Holcus lanatus, Festuca arundinacea, Prunella vulgaris

HYDROLOGY

Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	
Remarks: <u>No hydrology indicators observed.</u>	

SOILS

Map Unit Name (Series and Phase): <u>Undetermined</u>		Drainage Class: _____	
Taxonomy (Subgroup): _____		Field Observations Confirm Mapped Type? Yes No	

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
<u>6</u>	<u>A</u>	<u>10YR 3/2</u>	<u>—</u>	<u>—</u>	<u>Sandy loam</u>
<u>12+</u>	<u>—</u>	<u>10YR 3/2</u>	<u>7.5YR 5/8</u>	<u>common/distinct</u>	<u>Sandy loam</u>

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks: _____

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes <u>No</u> (Circle)	(Circle) Is this Sampling Point Within a Wetland? Yes <u>No</u>
Wetland Hydrology Present? Yes <u>No</u>	
Hydric Soils Present? Yes <u>No</u>	

Remarks: Wetland criteria not met.

Approved by HOUACE 3/92

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Lot 3, Old Collins Landing</u> Applicant/Owner: <u>David DeMartini</u> Investigator: <u>Doug Spitzer</u>	Date: <u>8/4/97</u> County: <u>Mendocino</u> State: <u>CA</u>
Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input checked="" type="radio"/> Yes <input type="radio"/> No (If needed, explain on reverse.) <u>Seasonal Wetland</u>	Community ID: <u>Upland</u> Transect ID: _____ Plot ID: <u>2</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. <u>Hypochaeris radicata</u>		<u>NL</u>
2. <u>Tris daphsiana</u>		<u>NL</u>
3. _____		
4. _____		
5. _____		
6. _____		
7. _____		
8. _____		

Dominant Plant Species	Stratum	Indicator
9. _____		
10. _____		
11. _____		
12. _____		
13. _____		
14. _____		
15. _____		
16. _____		

Percent of Dominant Species that are OSL, FACW and/or FAC: 0%
(excluding FAC-):

Remarks: also present: Anthoxanthum odoratum, Prunella vulgaris, Deschampsia elongata

HYDROLOGY

_____ Recorded Data (Describe in Remarks): _____ Stream, Lake, or Tide Gauge _____ Aerial Photographs _____ Other _____ No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: _____ Inundated _____ Saturated in Upper 12 Inches _____ Water Marks _____ Drift Lines _____ Sediment Deposits _____ Drainage Patterns in Wetlands Secondary Indicators (2 or more required): X <u>Oxidized Root Channels in Upper 12 Inches</u> _____ Water-Stained Leaves _____ Local Soil Survey Data _____ FAC-Neutral Test _____ Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	
Remarks: <u>No hydrology indicators observed at the surface</u>	

SOILS

Map Unit Name

(Series and Phase): Undetermined

Drainage Class: _____

Field Observations

Taxonomy (Subgroup): _____

Confirm Mapped Type? Yes No

Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
12		10 YR ³ / ₁	7.5 YR ⁵ / ₈	Common/detect	Sandy loam

Hydric Soil Indicators:

- | | |
|---|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: Soils show signs of hydric condition near the surface

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes <input checked="" type="radio"/> (Circle)	(Circle)
Wetland Hydrology Present?	Yes <input checked="" type="radio"/>	
Hydric Soils Present?	Yes <input checked="" type="radio"/>	Is this Sampling Point Within a Wetland? Yes <input checked="" type="radio"/>
Remarks: Soils show signs of hydric condition; however, lack of hydrology and dominance by upland plants makes this location a non-wetland.		

Approved by HOUSACE 3/92

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Lot 3, Old Collins Landing</u> Applicant/Owner: <u>David DeMartini</u> Investigator: <u>Doug Spilner</u>	Date: <u>8/4/97</u> County: <u>Mendocino</u> State: <u>CA</u>
Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input checked="" type="radio"/> Yes <input type="radio"/> No (If needed, explain on reverse.) <u>Seasonal Wetland</u>	Community ID: <u>Wetland</u> Transect ID: _____ Plot ID: <u>3</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Panicum acuminatum</u>		<u>FACW</u>	9. _____		
2. <u>Deschampsia elongata</u>		<u>FACW</u>	10. _____		
3. <u>Hypochaeris radicata</u>		<u>NL</u>	11. _____		
4. _____			12. _____		
5. _____			13. _____		
6. _____			14. _____		
7. _____			15. _____		
8. _____			16. _____		

Percent of Dominant Species that are OSL, FACW and/or FAC: 66%
(excluding FAC-):

Remarks: also present: Prunella vulgaris, Rubus sp., Anthoxanthum odoratum

HYDROLOGY

_____ Recorded Data (Describe in Remarks): _____ Stream, Lake, or Tide Gauge _____ Aerial Photographs _____ Other _____ No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: _____ Inundated _____ Saturated in Upper 12 Inches _____ Water Marks _____ Drift Lines <input checked="" type="checkbox"/> Sediment Deposits _____ Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 Inches _____ Water-Stained Leaves _____ Local Soil Survey Data _____ FAC-Neutral Test _____ Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	Remarks: <u>Oxidized root channels extend to the surface</u>

SOILS

Map Unit Name (Series and Phase): <u>Undetermined</u>		Drainage Class: _____	
Taxonomy (Subgroup): _____		Field Observations Confirm Mapped Type? Yes No	

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
3	A	10YR 7/1; 4/1	10YR 5/8	Common/distinct	clayey sandy loam
4+		10YR 7/1	10YR 5/8	Common/distinct	clayey sandy loam

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks: Redoxomorphic features throughout profile and evidence of long-term hydrology

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes No (Circle)	(Circle) Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes No
Wetland Hydrology Present? <input checked="" type="radio"/> Yes No	
Hydric Soils Present? <input checked="" type="radio"/> Yes No	

Remarks: Wetland criteria all met.

Approved by HOSACE 3/92

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Lot 3, Old Collins Landing</u> Applicant/Owner: <u>David DeMartini</u> Investigator: <u>Doug Spicker</u>	Date: <u>8/4/97</u> County: <u>Mendocino</u> State: <u>CA</u>
Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input checked="" type="radio"/> Yes <input type="radio"/> No (If needed, explain on reverse.) <u>Seasonal Wetland</u>	Community ID: <u>upland</u> Transect ID: _____ Plot ID: <u>4</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. <u>Arthrocnemum subterminatum</u>		<u>FACU</u>
2. <u>Prunella vulgaris</u>		<u>FAC</u>
3. <u>Holcus lanatus</u>		<u>FAC</u>
4. _____		
5. _____		
6. _____		
7. _____		
8. _____		

Dominant Plant Species	Stratum	Indicator
9. _____		
10. _____		
11. _____		
12. _____		
13. _____		
14. _____		
15. _____		
16. _____		

Percent of Dominant Species that are OSL, FACU and/or FAC: 106%
(excluding FAC-):

Remarks: also present: Iris douglasiana, Plantago sp.

HYDROLOGY

_____ Recorded Data (Describe in Remarks): _____ Stream, Lake, or Tide Gauge _____ Aerial Photographs _____ Other _____ No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: _____ Inundated _____ Saturated in Upper 12 Inches _____ Water Marks _____ Drift Lines _____ Sediment Deposits _____ Drainage Patterns in Wetlands Secondary Indicators (2 or more required): _____ Oxidized Root Channels in Upper 12 Inches _____ Water-Stained Leaves _____ Local Soil Survey Data _____ FAC-Neutral Test _____ Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	
Remarks: <u>No hydrologic indicators observed</u>	

SOILS

Map Unit Name (Series and Phase): <u>Undetermined</u>		Drainage Class: _____	
Taxonomy (Subgroup): _____		Field Observations Confirm Mapped Type? - Yes No	

Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
12+		10YR 3/1	10YR 5/0	common/distinct	Sandy loam

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks: Redoximorphic features begin at 4" below the surface

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <u>Yes</u> No (Circle)	(Circle) Is this Sampling Point Within a Wetland? Yes <u>No</u>
Wetland Hydrology Present? Yes <u>No</u>	
Hydric Soils Present? Yes <u>No</u>	

Remarks: all wetland criteria not met.

Approved by HQUACE 3/92

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Lot 3, Old Collins Landing</u> Applicant/owner: <u>David DeMartini</u> Investigator: <u>Doug Spicker</u>	Date: <u>8/4/97</u> County: <u>Mendocino</u> State: <u>CA</u>
Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input checked="" type="radio"/> Yes <input type="radio"/> No (If needed, explain on reverse.) <u>Seasonal Wetland</u>	Community ID: <u>wetland</u> Transect ID: _____ Plot ID: <u>5</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. <u>Deschampsia elongata</u>		<u>FACW</u>
2. <u>Panicum acuminatum</u>		<u>FACW</u>
3. <u>Hypochaeris radicata</u>		<u>NL</u>
4. _____		
5. _____		
6. _____		
7. _____		
8. _____		

Dominant Plant Species	Stratum	Indicator
9. _____		
10. _____		
11. _____		
12. _____		
13. _____		
14. _____		
15. _____		
16. _____		

Percent of Dominant Species that are OSL, FACW and/or FAC: 66%
(excluding FAC-):

Remarks: also Present: Proserella ulgaris, Anthoxanthum odoratum

HYDROLOGY

Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	
Remarks: <u>Oxidized root channels extend to the surface</u>	

SOILS

Map Unit Name (Series and Phase): <u>Undetermined</u>		Drainage Class: _____	
Taxonomy (Subgroup): _____		Field Observations Confirm Mapped Type? Yes No	

Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
12+		10YR 3/1	10YR 5/8	common/distinct	clayey sandy loam

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks: Redoximorphic features throughout the profile and evidence of long term inundation/saturation

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <u>Yes</u> No (Circle)	(Circle) Is this Sampling Point Within a Wetland? <u>Yes</u> No
Wetland Hydrology Present? <u>Yes</u> No	
Hydric Soils Present? <u>Yes</u> No	

Remarks: all wetland criteria met

Approved by HQUSACE 3/92

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Lot 3, Old Collins Landing</u> Applicant/Owner: <u>David DeMartini</u> Investigator: <u>Doug Spicker</u>	Date: <u>8/4/97</u> County: <u>Mendocino</u> State: <u>CA</u>
Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input checked="" type="radio"/> Yes <input type="radio"/> No (If needed, explain on reverse.) <u>Seasonal Wetland</u>	Community ID: <u>Wetland</u> Transect ID: _____ Plot ID: <u>6</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Distichlis spicata</u>		<u>FACW</u>	9. _____		
2. <u>Juncus sp</u>		<u>FACW</u>	10. _____		
3. _____			11. _____		
4. _____			12. _____		
5. _____			13. _____		
6. _____			14. _____		
7. _____			15. _____		
8. _____			16. _____		

Percent of Dominant Species that are OBL, FACW and/or FAC: (excluding FAC-): 100%

Remarks: also present: Holcus lanatus, Rubus sp.

HYDROLOGY

_____ Recorded Data (Describe in Remarks): _____ Stream, Lake, or Tide Gauge _____ Aerial Photographs _____ Other _____ No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: _____ Inundated _____ Saturated in Upper 12 Inches _____ Water Marks _____ Drift Lines <input checked="" type="checkbox"/> Sediment Deposits _____ Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 Inches _____ Water-Stained Leaves _____ Local Soil Survey Data _____ FAC-Neutral Test _____ Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	Remarks: <u>Oxidized root channels extend to the surface</u>

SOILS

Map Unit Name (Series and Phase): <u>Undetermined</u>		Drainage Class: _____	
Taxonomy (Subgroup): _____		Field Observations Confirm Mapped Type? Yes No	

Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
12+		10YR 3/1	10YR 5/8	common/distinct	Sandy loam

Hydric Soil Indicators:

<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Remarks)
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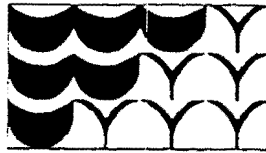
Remarks: Redoximorphic features throughout the profile and evidence of long-term inundation/saturation.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <u>Yes</u> No (Circle) Wetland Hydrology Present? <u>Yes</u> No Hydric Soils Present? <u>Yes</u> No	(Circle) Is this Sampling Point Within a Wetland? <u>Yes</u> No
---	--

Remarks: all wetland criteria met

Approved by HOUACE 3/92

**Wetlands Research Associates, Inc.**

August 24, 1999

David DeMartini
11714 Spriggs Way
Houston, TX 77024

RE: Home Construction - 36350 South Highway One

EXHIBIT NO.	10
APPLICATION NO.	A-1-MEN-99-081
DeMartini	
Wetland Correspondence (4 pages)	

Dear David:

I have reviewed the Mendocino County Staff Report of May 27, 1999 which identifies the concerns Staff have about several elements of your home construction and particularly how these elements may affect the Environmentally Sensitive Habitat Area (ESHA), which is a wetland, located on your property. The purpose of this letter is to discuss the issues related to the ESHA and provide the additional analysis of potential impacts to ESHA that Staff requested.

The concerns Staff identified in the Staff Report are as follows:

1. The amount of work proposed within the buffer area may adversely affect the ESHA
2. The additional drain water piped to the area of the ESHA and the berm placed east of the residence may adversely affect the ESHA

As I understand it, you have agreed to change several elements that may have affected the ESHA based on recommendations that Staff made. These design changes are as follows:

- A. Underground utility lines proposed to be located along the southern side of the property within the ESHA buffer area will now be routed along the northern side of the property, but will still be within the ESHA buffer area.
- B. The propane tank will be located nearer to the driveway so it can be serviced from the driveway, but it will still be within the ESHA buffer area. The propane tank will be screened visually.

ESHA Description

The ESHA is a small (0.07 acre) seasonal wetland located between Highway 1 and an ocean bluff and with existing home sites on each side. The wetland receives water primarily from precipitation and some localized runoff from adjacent areas and is wet only during the winter. The wetland is considered to be a "perched wetland" in that water sits on top of a relatively impermeable

subsurface soil layer. As water collects above this impermeable layer it saturates the soil, produces very shallow ponding, and eventually drains naturally to the south-southeast. Vegetation in the wetland is primarily grasses and shrubs are dominant plants in the buffer area. The wetland and buffer have no special status species of plants and because of its relatively small size, seasonality, and degree of isolation the wetland provides no particular benefit to wildlife.

Proposed Disturbance in ESHA Buffer Area

No construction or disturbance of any kind is proposed within the wetland. Within the 50-foot buffer area around the wetland (a) a sprinkler system to attenuate storm runoff from the proposed residence will be installed, (b) utility lines will be installed underground parallel to the driveway, (c) a propane tank will be located near the driveway, and (d) a low berm will be placed west of the wetland. An analysis of the potential impacts for each of these elements is provided as follows:

Storm Runoff Sprinkler System

The sprinkler system will be used to attenuate storm runoff collected from the residence roof and driveway area. During storms water will be collected in an underground storage tank and pumped through pipes to the sprinkler system installed in the eastern portion of the property. Pipes for the system will be underground in trenches similar to those used for utility lines (for description, see utility lines below). The only visible portion of the system will be the sprinkler heads which will be partially concealed by natural vegetation, including grasses, shrubs, and trees. The area covered by spray from the sprinkler system will be the eastern end of the property, including portions of the existing wetland, buffer areas, and areas outside of the buffer area. No spray will be directed onto adjacent properties or the highway. This method of storm runoff attenuation will take runoff from a relatively small area (approximately 2,900 square feet) at the residence and distribute it over a large area (approximately 21,000 square feet) of natural ground. This represents more than a seven fold increase in the amount of area over which the runoff is distributed.

Installation of the sprinkler system will have no significant effect to the ESHA or the buffer area as the system will be below ground and will require minimum disturbance to the area during installation. The system will be installed during the summer and/or while the ground is dry. No pipes or any portion of the system will be installed within the wetland. During system installation the wetland will be fenced temporarily to prevent any disturbance in the wetland. Any shrubs affected by excavation of trenches will be removed, temporarily potted, and held for transplanting back to their original location following system installation. Shrubs that may be too large or will not survive the transplanting process, may be discarded but will be replaced. Soil excavated from the chamber trenches will be temporarily stockpiled adjacent to the trenches on a fabric mat to protect plants from being buried and for easier cleanup. Soil stockpiling will not last longer than 30 days. Any excess soil will be removed from the buffer area. Following installation the soil surface over the trenches will be at the same level (or slightly mounded to allow for minor settling) as undisturbed soils and will be seeded with grasses found in adjacent areas on the property. Any shrubs removed

prior to excavation will be transplanted and irrigated until winter. Removed shrubs that were discarded or transplanted shrubs that do not survive for at least 90 days following transplanting will be replaced with native shrubs appropriate for the site location.

Operation of the sprinkler system will have no adverse affect on the wetland, buffer area, or adjacent areas. Water collected at the residence and sprayed by the system will only occur during storm events in the winter and spring and will take water from a relatively small surface area (approximately 2,900 square feet) and distribute it over an area of natural ground more than seven times as large (approximately 21,000 square feet). This will occur at the same time that the wetland is already saturated and/or inundated and adjacent natural areas are also wet. Any additional water contributed to the wetland and adjacent areas from the sprinkler system will only be temporary during storms and will not significantly impact these areas. After storms have passed, the water level in the wetland will quickly return to normal levels, and in fact, because the water is sprayed over such a wide area, there may be no measurable difference in water levels from existing conditions. During the summer the wetland and adjacent area will be dry, which is the normal summer condition.

Underground Utility Lines

Underground utility lines will have no adverse affect on the ESHA or the buffer area because they are underground. Utility lines will be placed in a trench running parallel to the driveway. The temporary disturbance to soil and vegetation during installation will have no significant effect on the habitat. To reduce impacts to a minimum, the trench will be excavated when the soil is dry, and any shrubs in the path of the trench will be removed, potted, and held for transplanting. Shrubs that may be too large or will not survive the transplanting process, may be discarded but will be replaced. Soil will be stockpiled along the driveway or on a fabric mat to protect plants from being buried and for easier cleanup. Soil stockpiling will not last longer than 30 days. Any excess soil will be removed from the buffer area. Following installation the soil surface over the trench will be at the same level (or slightly mounded to allow for minor settling) as undisturbed soils and will be seeded with grasses found in adjacent areas on the property. Any shrubs removed prior to excavation will be transplanted and irrigated until winter. Removed shrubs that were discarded or transplanted shrubs that do not survive for at least 90 days following transplanting will be replaced with native shrubs appropriate for the site location.

Propane Tank

The propane tank located near the access road will have no adverse affect on the ESHA or the buffer area. The tank is relatively small and will need only occasional servicing from a hose leading from the propane supply truck parked on the access road. The supply line leading from the tank to the utility line trench (described above) will be underground from the tank and will be installed using the same methods for installing underground utility lines as described above.

Berm Located East of Home (west of wetland)

The proposed berm that will be located west of the ESHA is required to provide additional protection to both the primary and replacement home leachfields. The berm will be low (approximately 18 inches tall), and will extend into the buffer area. This berm will cause no significant adverse effect to the ESHA or the buffer area if constructed as follows:

The material used to construct the berm will be a native material free of contaminants and weed seed. Any shrubs removed for placement of the berm will be removed prior to berm placement, potted, and held for transplanting. Shrubs that may be too large or will not survive the transplanting process, may be discarded but will be replaced. Following placement of the berm, it will be seeded with grasses found in adjacent areas on the property. Any shrubs removed prior to placement of the berm will be transplanted and irrigated until winter. Removed shrubs that were discarded or transplanted shrubs that do not survive for at least 90 days following transplanting will be replaced with native shrubs appropriate for the site location. The density of shrubs on the berm following construction will be equal to or greater than the density prior to its construction.

The natural drainage for the wetland is through a gentle swale off to the south-southwest of this parcel. The proposed protective berm will not block this swale and post-project drainage will remain the same as existing drainage. Therefore, construction of the berm will not affect the natural drainage of the site or the size or shape of the existing wetland.

With the implementation of the mitigation measures described above, the protective values of the buffer zone and the wetland will not be adversely impacted and no additional mitigation measures will be necessary.

If you have any questions or require additional information, please call.

Sincerely,



Douglas Spicher
Certified Professional Wetland Scientist



BACE Geotechnical
A Division Of
Brunsing Associates, Inc.

August 22, 1994

10828.1

Mr. David C. DeMartini
11714 Spriggs Way
Houston, Texas 77024

RE: Report Update, Field Engineering Associates, Inc., Geotechnical
Investigation, 36350 South Highway One, Mendocino County,
California

Dear Mr. DeMartini:

The letter presents an update to the Geotechnical Investigation Report, dated June 9, 1986, for 36350 South Highway One, Mendocino County, California. A copy of the subject report, along with an Addendum letter dated June 17, 1986, both prepared by Field Engineering Associates, Inc., (FEA) are enclosed with this update letter.

The undersigned Engineering Geologist, while a member of FEA, observed the property in 1986 and co-authored the report and addendum. The undersigned returned to the site in July, 1994, to look for any evidence of erosion or other changes at the property over the past eight years.

The property is planned to be developed with a single-family residence in the southwest corner of the property (near the ocean bluff). According to the untitled Site Plan prepared by Carl Rittiman, transmitted to us on August 2, 1994, the primary leach bed will be located in the northwest corner of the property. The replacement bed location will be about 40 feet east of the planned house.

The purpose of our present services was to evaluate the bluff in order to determine the erosion (bluff retreat) rate and to verify the suitability of the FEA report recommendations regarding structure setback, foundation support and site drainage.

EXHIBIT NO. 11
APPLICATION NO. A-1-MEN-99-081
DeMartini
Geotechnical Report (41 pages)

Mr. David C. DeMartini
August 22, 1994
Page 2

Field Reconnaissance

Our Principal Engineering Geologist performed a reconnaissance of the site on July 14, 1994. As part of his reconnaissance he studied aerial photographs taken in 1963 and 1981 that were enlarged to a scale of one inch equals 200 feet. Field notes and measurements (with a 100-foot tape measure) from the FEA file were reviewed and compared with present conditions at the site. The two former backhoe test pits that were excavated and loosely backfilled for the field exploration in 1986 were still visible as ground surface depressions, each about 2 to 6 inches deep. A survey monument (steel stake) set about one foot behind the bluff edge in 1971 (verbal communication, May 1986, with Richard A. Seale, Land Surveyor) was still in the same location during our recent reconnaissance. The recent field measurements between that monument, FEA Test Pit No. 1 and the bluff edge, matched the measurements recorded in 1986.

The FEA report mentions a slough loss of as much as about three feet in the southeasterly portion of the bluff between 1971 and 1985. Comparison of the 1963 and 1981 aerial photograph enlargements does provide an indication that the sloughing occurred during those years. This portion of the bluff presently appears to be about the same as in 1986 (no evidence of sloughing), but the locally dense underbrush denied access for any accurate measurements.

Conclusions and Recommendations

Based upon the results of our field reconnaissance and our comparisons with previous (8 years earlier) file data, we conclude that the site remains suitable for a single-family dwelling. A relatively safe bluff setback of 25 feet (in conjunction with a drilled pier foundation) would be based upon a more than worst case erosion rate of one inch per year for 75 years (the considered economic lifespan of a house) multiplied by a safety factor of four; this agrees with FEA's recommended setback. This setback remains conditioned upon the bluff side house foundations extending into bedrock below a 3/4H:1V line up from the bluff toe, as shown on Plate 3 of the FEA report.

Except as noted below, the foundation design criteria presented in the FEA report and as modified in the FEA report addendum, remain suitable for use in project design.



Mr. David C. DeMartini
August 22, 1994
Page 3

Drilled piers should be a minimum of 12 inches in diameter, and should penetrate at least three feet into suitable weathered bedrock materials. As previously recommended, the piers should also extend below a 3/4H:1V line from the bluff toe.

All piers should be designed as end bearing using a bearing capacity of 6,000 pounds per square foot (psf) for dead plus live loads. A one-third increase can be realized when considering the short term effects of wind and/or seismic loads. Pier spacing should be no closer than three pier diameters, center to center. Lateral pressures in the FEA report are still considered valid.

Pier holes should be cleaned of auger cuttings, the bottoms tamped firm, and dewatered (if necessary) prior to placement of reinforcing steel. A representative of BACE should observe each pier hole for proper penetration into suitable material, cleanliness, and dewatering prior to steel and concrete placement. Such observations should take place during the drilling operations.

The FEA site drainage recommendations can be modified, since little, if any, bluff edge erosion has taken place in the last 8 or more years. The FEA recommended bluff edge subdrain, as well as the uphill foundation line subdrain that the FEA report said would be prudent, but not totally necessary, can both be eliminated from the project design. The ground surface should still be sloped away from the house and any continuous, cross-slope foundation elements and under-slab gravels, should have weep holes for accumulated moisture relief. As a precaution, leach beds should be no closer than 50 feet from the bluff edge.

Instead of discharging collected drain water onto hard rock at the bluff toe as recommended in the FEA report (although that is the most effective erosion control method available, it is not allowed by the County of Mendocino) drain water should be conducted to a discharge point(s) along the east side of the residence. Care should be taken so that runoff water from the discharge point(s) does not flow toward the primary leach bed.

Additional Services

Prior to construction, BACE should review the final grading and building plans (and soil-related specifications) for conformance with the intent of our recommendations.



Mr. David C. DeMartini
August 22, 1994
Page 4

During construction, BACE should be retained to provide periodic observations, together with field and laboratory testing, during site preparation, placement and compaction of fills and backfills, and foundation construction. BACE should field review the staked foundation corners, prior to any excavations, in order to confirm the bluff setback distances. These observations and tests would allow us to verify conformance of the work to project guidelines, determine that soil and rock conditions are as anticipated, and to modify our recommendations, if necessary.

Limitations

These geological and engineering services and review of the proposed development were performed in accordance with the usual and current standards of the profession, as they relate to this and similar localities. No other warranty, expressed or implied, is provided as to the conclusions and professional advice presented in the report. Our conclusions are based upon reasonable geologic and engineering interpretation of available data.

This report is issued with the understanding that it is the responsibility of the Owner, or of his/her representative, to ensure that the information and recommendations contained herein are brought to the attention of all other design professionals for the project, and incorporated into the plans, and that it is ensured that the Contractor and Subcontractors implement such recommendations in the field. The safety of others is the responsibility of the Contractor. The Contractor should notify the Owner and BACE if he considers any of the recommended actions presented herein to be unsafe or otherwise impractical.

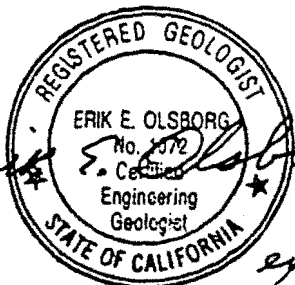
The recommendations contained in this report are based on certain specific project information regarding type of construction and building location which has been made available to us. If any conceptual changes are undertaken during final project design, we should be allowed to review them in light of this report to determine if our recommendations are still applicable.



Mr. David C. DeMartini
August 22, 1994
Page 5

We trust that the above information suits your needs at this time. Please call us if you have any questions.

Respectfully submitted,



Erik E. Olsborg
Erik E. Olsborg
Engineering Geologist - 1072



Arthur H. Graff
Arthur H. Graff
Civil Engineer - 38174

EEO/AHG/mm

cc: Michael Wike, Architect
(Three copies)





FIELD ENGINEERING ASSOCIATES, INC.
GEOTECHNICAL CONSULTANTS

SANTA ROSA
SACRAMENTO
CLEARLAKE

June 17, 1986

3062.01

Dr. Howard Hambrecht
c/o Mr. Obie B. Bowman, AIA
1000 Annapolis Road
The Sea Ranch, California 95497

Gentlemen:

Report Addendum
Geotechnical Investigation
Hambrecht Residence
36350 Highway One
Mendocino, California

This letter presents an addendum to our Geotechnical Investigation report, dated June 9, 1986, for the proposed Hambrecht residence northwest of Gualala. The property is located at 36350 Highway One, Mendocino County, California. As discussed with Obie Bowman, Project Architect, on June 16, 1986, the following items should be noted:

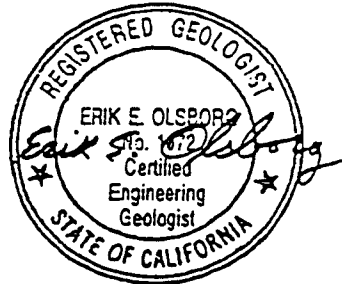
1. All drilled piers should be connected by continuous grade beam ties.
2. Correction, Page 2, second paragraph, second line; Richard A. Sheale should be Richard A. Seale.
3. Plate 8, Note 3; based upon the topographic map, dated November 2, 1985, prepared by Richard A. Seale, the "worst case" scenario (with the house foundations 25 feet back from the steepest portion of the bluff) would require a deepening of the pier by only 1/2 foot beyond the depth recommended in the pier capacity chart. By deepening, by 1/2 foot, any piers within 26 feet of the bluff, Note 3 on Plate 8 can otherwise, be disregarded.

Dr. Howard Hambrecht
June 17, 1986 - Page 2

We trust the above information clarifies any uncertainties.
Please contact us if you have any further questions.

Yours very truly,

FIELD ENGINEERING ASSOCIATES, INC.



Erik E. Olsborg
Engineering Geologist - 1072

EEO/GBY/ms

3 copies submitted

cc: Dr. Howard Hambrecht

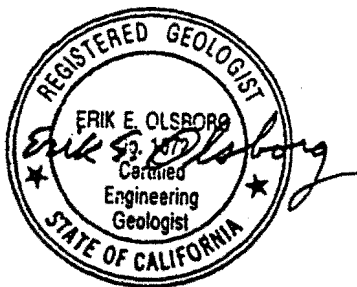
GEOTECHNICAL INVESTIGATION
HAMBRECHT RESIDENCE
LOT 3 OF OLD COLLINS LANDING SUBDIVISION
36350 HIGHWAY ONE
MENDOCINO COUNTY, CALIFORNIA

FEA Project No. 3062.01

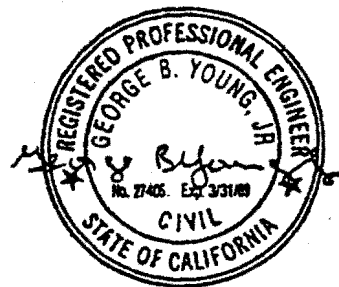
Prepared for

Dr. Howard Hambrecht
c/o Obie B. Bowman, AIA
1000 Annapolis Road
The Sea Ranch, California 95497

By



Erik E. Olsborg
Engineering Geologist - 1072



George B. Young, Jr.
Civil Engineer - 27405

Field Engineering Associates, Inc.
2930 McBride Lane
Santa Rosa, California 95401
(707) 525-9266

June 9, 1986

TABLE OF CONTENTS

LIST OF ILLUSTRATIONS	ii
INTRODUCTION	1
INVESTIGATION	2
RESEARCH	2
FIELD EXPLORATION	3
LABORATORY TESTING	4
SITE CONDITIONS	4
GEOLOGY	6
REGIONAL SETTING	6
SITE GEOLOGY AND SOILS	7
SEISMICITY	8
DISCUSSIONS AND CONCLUSIONS	9
WAVE EROSION	9
CLIFF STABILITY	10
SEISMICITY AND FAULT RUPTURE	10
SETTLEMENT	11
SITE HYDROLOGY	11
CONSTRUCTION IMPACT	12
RECOMMENDATIONS	12
SITE GRADING	12
FOUNDATION SUPPORT	13
Footing Elements	13
Drilled Piers	14
Lateral Loads	15

TABLE OF CONTENTS (CONT'D)

SITE DRAINAGE	15
CONCRETE SLABS-ON-GRADE	16
ADDITIONAL SERVICES	17
LIMITATIONS	17
SELECTED REFERENCES	19
ILLUSTRATIONS	21
DISTRIBUTION	31

LIST OF ILLUSTRATIONS

LOCATION MAP	Plate 1
SITE GEOLOGIC MAP	Plate 2
CROSS SECTION A-A'	Plate 3
TEST PIT LOGS	Plate 4
SOIL CLASSIFICATION CHART	Plate 5
ROCK CHARACTERISTICS CHART	Plate 6
REGIONAL GEOLOGIC MAP	Plate 7
PIER CAPACITY	Plate 8
TYPICAL SUBDRAIN	Plate 9

INTRODUCTION

This report presents the results of our Geotechnical Investigation of the proposed Hambrecht residence site. The approximately one-acre lot is located at 36350 Highway One, about three miles northwest of the town of Gualala, Mendocino County, California. The property location is shown on the Location Map, Plate 1.

Building plans have not been completed as yet; however, we understand the wood-frame, single-family residence will be of one or two stories. A portion of the house will be cantilevered beyond the foundation toward the edge of the bluff, as shown on an undated schematic section prepared by Obie Bowman, project architect. The residence will be served by district water and a private septic tank/leach field disposal system located northeast of the proposed building site.

The purpose of our investigation was to evaluate the soil and rock conditions at the site with respect to the feasibility and siting of the planned development. The scope of our services, as outlined in our Service Agreement, dated February 11, 1986, included a review of published geologic maps and literature, field exploration, laboratory testing, engineering and geologic analyses and the preparation of this report.

INVESTIGATION

RESEARCH

A list of the recent and historic maps, reports and photographs we reviewed for this study is presented in the Selected References, near the end of this report. Two sets of stereo aerial photographs (taken in 1963 and 1981), both with a scale of 1 inch equals approximately 1667 feet, were studied and compared to observe any topographic differences in the Collins Landing vicinity in the last 23 years. Tonal variations and lineaments and various surface features which might be suggestive of erosion, landsliding or faulting were examined in detail to aid in the geologic interpretation of the site. The photos show no gross evidence of recent bluff retreat or other evidence of erosion or instability on the subject property.

An investigation of recorded land surveys was performed by Richard A. Sheale, Land Surveyor. The investigation found (verbal communication, May, 1986) that a survey monument set in 1971, about one foot from the edge of the bluff along the southeasterly property boundary, has been eroded away. Measurements in 1985, compared with those of 1971, indicate that portion of the bluff has retreated about three feet toward the northeast. The pipe set behind the edge of the bluff along the southwesterly property boundary shows there has been no erosion or retreat in this area since 1971.

FIELD EXPLORATION

Our Engineering Geologist performed a geologic reconnaissance of the property in March, 1986. The cliff below the project area was closely examined at low tide (tidal height = -0.3 feet) on March 22, 1986. The ocean/land interface was further observed at high tide (tidal height = +5.0 feet) on March 27, 1986.

Our Engineering Geologist mapped prominent topographic and geologic features at the site and near-vicinity during his reconnaissance. Geologic reconnaissance consisted of examination of bedrock and soils exposed on the cliff face and in nearby road cuts. Geologic mapping consisted primarily of identification of bedrock, terrace deposits, topsoil and fill exposed on the site surface. In general, the abundance of rock exposures provided for relatively good observation of bedrock conditions. Results of the mapping are presented on Plates 2 and 3.

The site subsurface conditions were explored by excavating, logging, and sampling two backhoe test pits, ranging from 11 to 12 feet in depth. Our geologist logged the test pits and obtained relatively intact samples of the soils and weathered rock for visual evaluation and supplemental laboratory testing. The intact samples were recovered from the test pits by hand-driving 2-1/2-inch outside diameter (OD) brass tubes.

The test pit locations are shown on the Site Geologic Map, Plate 2. The test pits are diagrammed on Cross Section A-A', Plate 3. The logs of the test pits showing soil and rock

descriptions and sample depths are presented on Plate 4. The soils are classified using the Unified Soil Classification system illustrated on Plate 5; bedrock materials are described using various physical property criteria shown on Plate 6.

LABORATORY TESTING

We re-examined the samples in our laboratory to confirm their field classifications and to select representative samples for testing. Laboratory testing consisted of moisture content/dry density, and direct shear strength. The moisture/density and strength test results are presented on the logs in the manner given in the Key to Test Data on Plate 6.

SITE CONDITIONS

The coastline of Mendocino County is indented and fragmented with small inlets and peninsulas eroded out of the mainland. The Hambrecht property is located west of State Highway One, three quarters of a mile southeast of the community of Anchor Bay, as shown on Plate 1. The property is situated at the top of a small peninsula that juts southwesterly into the Pacific Ocean. The sides of the peninsula are steep sea cliffs, with slopes ranging from one and one-half feet horizontal to one foot vertical (1-1/2H:1V), to near vertical, with heights up to 80 feet. The cliff slopes in the property vicinity do not have any seacaves or well-developed cavities in the surf zone or elsewhere. Waves

were observed traveling up the beach to the base of the cliff during our visit at high tide, but not during our visit at low tide. Being on the south side of the peninsula, the property is shielded from the northwest; the prevailing direction of the approaching waves.

The gently sloping top of the Collins Landing Peninsula is a portion of an elevated terrace. The terrace was created during the Pleistocene Epoch, when glaciation caused sea level fluctuations which created a series of steps or terraces cut into the coastal bedrock surface by wave erosion. Shallow marine sediments were deposited on the wave cut, bedrock platform while the site was submerged beneath the ocean. These marine deposits have been locally eroded away as the site began to emerge from the ocean approximately fourteen thousand years ago. Present sea levels were achieved about five to seven thousand years ago.

The property is presently vacant; the only "improvement" is a gravelled driveway from State Highway One to the building site. Site vegetation consists of grass and weeds with clusters of small pine trees, manzanitas and one medium size cypress tree near the south corner of the property.

Drainage is by sheet flow across the site to the cliff edge and over to the ocean below. No surface water was observed on the upper terrace portion of the property during our investigation. Free water was encountered at depths of 10 and 4 feet in Test Pits 1 and 2, respectively. Three seasonal water seeps were observed on the lower cliff face below the building

site. A small area of shallow surface erosion was noted on the upper cliff face at the southeasterly property line.

GEOLOGY

REGIONAL SETTING

Mendocino County is within the northern Coast Ranges geomorphic province of California. The basement rocks comprising the hills and ridges of the coastal, westerly half of Mendocino County are associated with the Jurassic-Tertiary age Franciscan Complex Coastal Terrane. The Franciscan Coastal Terrane generally consists of poorly bedded, variably fractured, and partially indurated, sedimentary, igneous and metamorphic rocks.

The coastal region in a portion of southwesterly Mendocino County is composed of rocks of the Point Arena Terrane of the Salinian Block. The Point Arena Terrane extends west of the San Andreas Fault from Point Arena to Fort Ross, as shown on the Regional Geologic Map, Plate 7. The rocks of this terrane consist of a sequence of continental and marine sedimentary rocks from Late Cretaceous to Eocene in Age. The sedimentary rocks (primarily sandstone, shale and conglomerate) are generally well bedded, occasionally fractured and moderately hard to hard. The basement rocks underlying the Point Arena Terrane are comprised of spilitized basalt (altered by low grade metamorphism), representative of oceanic crust.

SITE GEOLOGY AND SOILS

Site bedrock, as exposed in the cliff below the proposed residence, consists of sandstone and shale of the Late Cretaceous Age, Gualala Formation. The lower ± 65 feet of the cliff is composed of light to dark gray sandstone and shale beds that are little fractured, hard to very hard, and little weathered. The hard, gray rock is overlain by a 5 to 6-foot thick, weathered zone of brown to light brown claystone/shale with some sandstone. The moderately to deeply weathered rock is closely fractured and friable to low in hardness. Site bedding orientation, as shown on Plate 2, consists of a westerly trending strike with a gentle dip (24 degrees from horizontal).

Several faults or shear zones were observed within the site bedrock. The past wave erosion of one ± 12 feet wide shear zone has resulted in the minor indentation into the cliff near the southwesterly property line. Seepage waters are exiting the cliff face through some of the fractures in the faults and shear zones. None of the observed faults showed any evidence of recent activity. No published references show any active faults passing through, or trending towards, the property.

No evidence of landsliding, soil creep, or severe, on-going erosion was observed at the site. As mentioned, there has been some minor erosion on the upper bluff near the southeasterly property line.

The Gualala Formation bedrock is overlain by about 5-1/2 feet of poorly-consolidated, Pleistocene Age, Terrace Deposits.

These beach or shallow marine sediments are comprised of silty fine sand with some gravel and clay, along with incorporated rock fragments eroded from the underlying bedrock. The terrace materials were deposited in lenses that are generally flat, with local undulations caused by the variable-energy nature of the depositional environment. The upper 1-1/2 feet of the terrace deposits are porous and loose, with some roots, but appear generally "low in expansion potential" (tendency for volume change with changes in moisture content) per Uniform Building Code (UBC) classification.

SEISMICITY

The Coast Ranges geomorphic province is in a zone of high seismic activity associated with the San Andreas Fault system, which passes through the south Mendocino coast about 2-1/2 miles northeast of the site. The Hopland segment of the Maacama Fault, located about 30 miles northeast of the site, and the Healdsburg Fault, located about 31 miles to the east-southeast, are the nearest members of a roughly parallel, en echelon fault system lying east of the San Andreas.

Future damaging earthquakes could occur on the San Andreas Fault during the lifetime of the proposed structures. The Healdsburg and Maacama Faults are probably too distant from the project site for the development to be affected by anything less than the most severe earthquake those faults are capable of

producing (approximate Richter magnitudes 7.0 and 7.25, respectively). The Regional Geologic Map, Plate 7, shows the proximity of the site to the mentioned, major active faults.

DISCUSSION AND CONCLUSIONS

From a geotechnical engineering standpoint, we judge the site suitable for the proposed residential development. The main geotechnical considerations affecting the project are wave erosion, cliff stability, seismicity and fault rupture, settlement and the site hydrology.

WAVE EROSION

Coastal erosion rates for sites with similar lithologies (moderately to well indurated strata) and physiographic setting (unbenched sea cliff rising steeply from mean sea level with a boulder or sandy beach between the cliff toe and the sea) have been found to be relatively minimal in studies elsewhere along the coast in the San Francisco Bay area. The actual retreat potential is controlled by the geologic structure (bedding inclination, fracturing, etc.) and direction and intensity of wave attack. The present erosion potential appears to be minimal, due to the relatively hard, competent rock at the toe of the cliff, the favorable bedding orientation (striking perpendicular to the wave direction), and the waves being slowed by the boulder or sandy beach. As mentioned previously, the

project site is on the south side of the Collins Landing Peninsula, and is thus shielded from direct wave attack from the prevailing wave direction. Waves from the northwest must round the peninsula, then turn about 90 degrees to reach the cliff on the property. Therefore, the wave energy is greatly dissipated when it reaches the toe of the cliff, further reducing the erosion potential significantly. The hard, resistant rock mass to the west of the property is taking the brunt of the wave attacks, thus inhibiting the further erosion of the mentioned shear zone.

CLIFF STABILITY

No evidence of gross instability, such as landsliding, was observed on the cliff in the property or near the vicinity.

As with all sea cliff or hillside sites in general, some risk of instability exists and must be accepted by the property owner. The current state-of-the-art in geotechnical engineering makes it possible to identify most areas of existing instability, or to make recommendations which lower the risk of instability to levels that are generally acceptable.

SEISMICITY AND FAULT RUPTURE

The site will be subject to strong ground shaking during future, nearby, large magnitude earthquakes. Structures founded in firm soil or rock, and designed in accordance with current local building codes (UBC), are well suited to resist the

detrimental effects of strong ground shaking.

In general, the intensity of ground shaking at the site will depend on the distance to the causative earthquake epicenter, the magnitude of the shock, and the response characteristics of the underlying earth materials.

With firm bedrock near the ground surface, the site should receive less damaging, short period, jarring motions during an earthquake, with no significant ground wave amplifications.

Since the active San Andreas Fault is about 2-1/2 miles away from the site, and no other active faults were observed by us, or are shown on published maps in the site vicinity, we judge the potential for surface fault rupture at this site to be nil.

SETTLEMENT

The near-surface topsoils are weak, porous and moderately compressible. These soils could undergo erratic and detrimental settlement under the planned structure foundation loads. With foundations supported on underlying firm soil or bedrock, differential settlement is expected to be negligible.

SITE HYDROLOGY

The planned structure will be intercepting the natural sheet flow drainage across the site. All concentrated runoff waters (including water from roof gutter downspouts) should be collected into a storm drain system that outlets, via a closed pipe, at the base of the cliff.

The planned leach field site is presently stable and should not be adversely affected by the installation and operation of an approved septic tank/leach field waste disposal system. To reduce the possibility of adverse effects of sewage effluent on the soils exposed on the upper bluff, the leach field should not be located within 55 feet of the edge of the bluff. This would allow for a subdrain, at least 5 feet from the edge of the bluff.

CONSTRUCTION IMPACT

In general, the proposed development, constructed in accordance with our recommendations, should have a beneficial effect upon the cliff stability. The necessary surface (including roofs) and subsurface drainage facilities, emptying directly at the toe of the cliff, should remove or reduce the seepage pressures that could cause sloughing on the upper bluff slopes.

RECOMMENDATIONS

SITE GRADING

All areas to be graded should be cleared and stripped to remove vegetation and topsoil. After stripping, any old fill and soft or porous natural soils should be removed for its full depth. All fill should be free of organic material and rocks greater than four inches. Fill should be placed in thin lifts (normally six to eight inches thick depending on compaction

equipment used), moisture conditioned to near optimum moisture content and compacted to at least 90 percent relative compaction* in accordance with ASTM D1557-78 test method.

In general, cut or fill slopes should be no steeper than 2H:1V. The faces of all slopes should be protected from erosion by providing drainage control measures, such as channels or berms near the crown to prevent surface water from flowing over the slope. All grading operations should be reviewed and approved by a representative of Field Engineering Associates, Inc. (FEA), while the earth moving equipment is working on site.

FOUNDATION SUPPORT

Structures may be supported by continuous, reinforced-concrete footings founded in firm natural subsoils, or engineered fill (placed in accordance with our recommendations), provided the structure is sited back of a 1H:1V line from the toe of the bluff (approximately 45 feet from the top edge of the bluff). The structure can be placed as close as 25 feet from the top edge of the bluff, provided all foundations extend below a 3/4H:1V line from the bluff toe as shown on Plate 3. In this siting, the structure should be founded on reinforced-concrete piers that extend to firm weathered bedrock.

Footing Elements

Structures at least 45 feet from the edge of the bluff can be supported by typical (isolated or continuous), reinforced-

concrete footings established at least 18 inches below the lowest adjacent finished grade and bottomed either in engineered fill (90 percent relative compaction) placed in accordance with our previous recommendations, and/or firm, intact natural soils as identified by FEA. Peripheral footing elements should be continuous; interior elements, isolated or continuous.

Footings established per above may be assigned soil bearing pressures of 2000 pounds per square foot (psf) for dead plus live loads, with a one-third increase allowable for wind and/or seismic forces. Wall and column footings should be no less than 12 and 18 inches wide, respectively, regardless of load.

Drilled Piers

Drilled piers may be utilized for loads of 4 to 16 kips. Plate 8 presents the curves indicating the required depth of 12 and 16-inch diameter piers to satisfy varying load ranges. Similar depth/load combinations are available for other pier diameters, if required. The indicated depths assume no more than 1-1/2 feet of weak materials which would not contribute to foundation support; pier depths would be increased by the thickness of weak natural or non-engineered fill in excess of 1-1/2 feet. Drilled piers should bottom into firm weathered bedrock and extend below a 3/4H:1V line from the bluff toe. Actual pier depths will be determined on the basis of a field-review by a representative of FEA during pier drilling operations. Pier spacing should be at least 2-1/2 pier diameters

center to center, and the piers should be reasonably clean of loose material and water prior to pour.

Lateral Loads

Resistance to lateral loads can be obtained using a combination of passive earth pressure against the face of foundations and frictional resistance along the base of (shallow footing) foundations. An allowable passive pressure of 200 psf per foot of depth below firm natural or compacted soil subgrade (triangular distribution) and frictional resistance of 0.30 times the net vertical dead load, can be used in design. A lateral resistance of 400 psf (rectangular distribution) may be used for penetration into the weathered rock below a depth of about 6 feet. Passive pressure should be neglected within 18 inches of pad grade, unless the surface is confined by slabs or pavement.

Isolated concrete pads for non-bearing floor support can be 18 inches deep below existing grade, or below the loose, silty sand topsoil layer in cut areas.

SITE DRAINAGE

It would be prudent, but not totally necessary, for the residential structure to have a subdrain, as shown on Plate 9, outside the uphill foundation line to protect the foundation from subsurface seepage. The ground around the sides of the house should be sloped away to prevent surface water from flowing underneath the structure. Any continuous, cross-slope foundation

element within the structure, which extends above grade, should have weep holes at ground level to minimize accumulation of seepage. Slab supporting gravels should have similar drainage relief provisions.

In addition, a subdrain should be installed continuously, parallel 5 to 10 feet back from the edge of the bluff. The subdrain trench should be excavated down to firm weathered rock (approximately 6 feet) beneath the granular terrace deposits. The subdrain is intended to minimize the pore water pressure within the overburden on the bluff edge, thereby reducing the potential for instability. The subdrain should be no closer than 50 feet (lateral) from the planned leach field.

All collected or concentrated drain waters, including roof water run-off, should be conducted, via a closed pipe, to the base of the bluff. The pipe should be well secured on the slope surface and the outlet should be designed to inhibit erosion potential of any concentrated flows.

CONCRETE SLABS-ON-GRADE

Concrete slabs-on-grade can be supported on properly prepared subgrade soils. However, interior floors should be underlain by at least 4 inches of clean, free-draining gravel and crushed rock, graded in size from 1-1/2 to 1/4 inches, to act as a capillary moisture break. Where movement of moisture vapor through the slab would be detrimental to its intended use, installation of a vapor barrier should be considered.

ADDITIONAL SERVICES

Prior to construction, we should review the final grading and building plans (and soil-related specifications) for conformance with the intent of our recommendations.

During construction, we should be retained to provide periodic observations, together with field and laboratory testing, during site preparation, placement and compaction of fills and backfills, subdrain installation, and foundation construction. These observations and tests would allow us to verify conformance of the work to project guidelines, determine that soil conditions are as anticipated, and to modify our recommendations, if necessary.

LIMITATIONS

This report has been prepared in accordance with generally accepted geotechnical engineering principles and practices. No other warranty, either expressed or implied, is made.

The recommendations contained in this report are based on certain general information regarding type of construction and site grading which has been made available to us. If any conceptual changes are undertaken during final project design, we should be allowed to review them in light of this report to determine if our recommendations are still applicable.

*Relative compaction refers to the in-place dry density of a soil expressed as a percentage of the maximum dry density of the same soil, as determined by the ASTM D1557-78 compaction test procedure. Optimum moisture is the water content (percentage by dry weight) corresponding to the maximum dry density.

SELECTED REFERENCES

TOPOGRAPHIC MAPS

1. Gualala Quadrangle Topographic Map, 1977, 7-1/2 minute Series, USGS.
2. Mines and Claims of Mendocino County, 1953, Division of Mines Journal, Vol. 49, No. 4, Plate 10b, CDMG.
3. Topographic Map, of the Lands of Hambrecht, Lot 3 of Old Collins Landing Subdivision, 1985, Scale 1" = 16', Seale, R.A., Land Surveyor.

GEOLOGIC MAPS AND REPORTS

1. Bailey, E.H., et. al., 1964, Franciscan and Related Rocks, Bulletin 183, CDMG.
2. Blake, M.C., et. al., 1984, Franciscan Geology of Northern California, The Pacific Section of the Society of Economic Paleontologists and Mineralogists.
3. Cleveland, G.B., 1975, Landsliding in Marine Terrace Terrain, California, CDMG.
4. Frizzell, V.A., et. al., 1972, Progress Report on the USGS Quaternary Studies in the San Francisco Bay Area, Guidebook for the Friends of the Pleistocene.
5. Irwin, W.P., 1958, Geologic Map of Northwestern California, Plate 1 of Bulletin 179, CDMG.
6. Jennings, C.W., and R.G. Strand, 1960, Geologic Map of California, Ukiah Sheet, CDMG.
7. Jennings, C.W., 1975, Fault Map of California, Geologic Data Map No. 1, CDMG.
8. Jennings, C.W., et. al., 1977, Geologic Map of California, CDMG.
9. Page, B.M., 1966, Geology of the Coast Ranges of California, in Geology of Northern California, Bulletin 190, CDMG.
10. Real, C.R., et. al., 1978, Earthquake Epicenter Map of California, Map Sheet 39, CDMG.

SELECTED REFERENCES (CONT'D)

11. Ritter, J.E., and W.E. Dupre, 1972, Map Showing Areas of Potential Inundation by Tsunamis in the San Francisco Bay Region, California, Basic Data Contribution 52, USGS and HUD.
12. Wagner, D.L., and E.J. Bortugno, 1982, Geologic Map of the Santa Rosa Quadrangle, California, CDMG, Regional Geologic Map Series, Map No. 2A, Sheet 1, CDMG.
13. Weber, G.E., et. al., 1979, Coastal Tectonics and Coastal Geologic Hazards in Santa Cruz and San Mateo Counties, California, 75th Annual Meeting, Cordilleran Section of the Geological Society of America.
14. Williams, J.W., and T.L. Bedrossian, 1976, Geologic Factors in Coastal Zone Planning, Schooner Gulch to Gualala River, Mendocino County, California, Open File Report 76-3SF, CDMG.
15. Williams, J.W., and T.L. Bedrossian, 1977, Coastal Zone Geology Near Gualala, California, in California Geology, Volume 30, Number 2, CDMG.
16. Woods, M.C., 1977, Tsunamis, in California Geology, Volume 30, Number 4, CDMG.

PHOTOGRAPHS

- P-1 Cartwright Aerial Surveys, Inc., June 30, 1963, Scale: 1"=±1667', Photo Series Nos. Men 4-69 & 70.
- P-2 Cartwright Aerial Surveys, Inc., June 23, 1981, Scale: 1"=±1667', Photo Series Nos. 81 22 001 & 002.

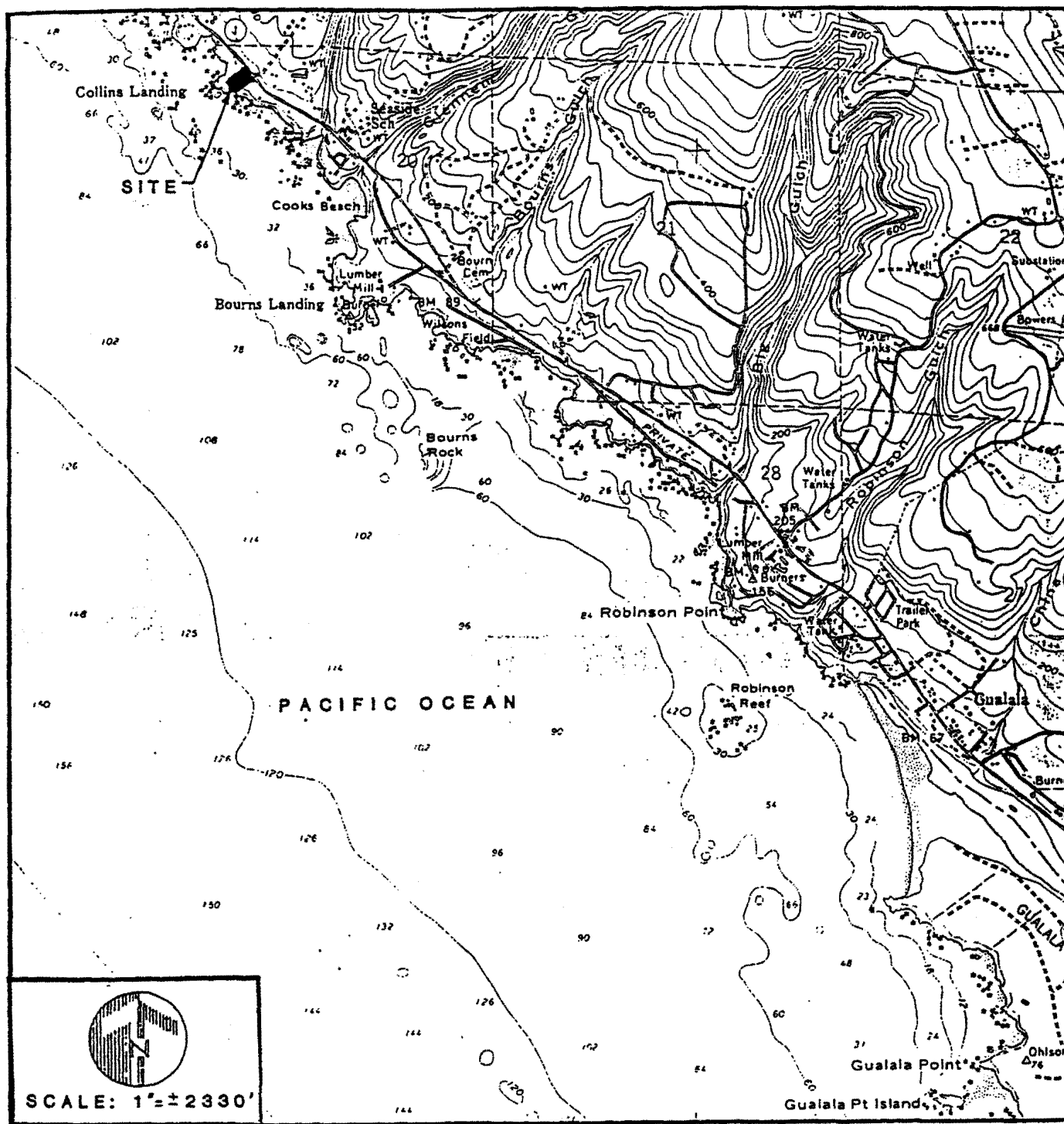
ILLUSTRATIONS

APPR. **EEO**

Hambrecht Residence
36350 Highway One
Mendocino County, California

Date 6/9/86

1

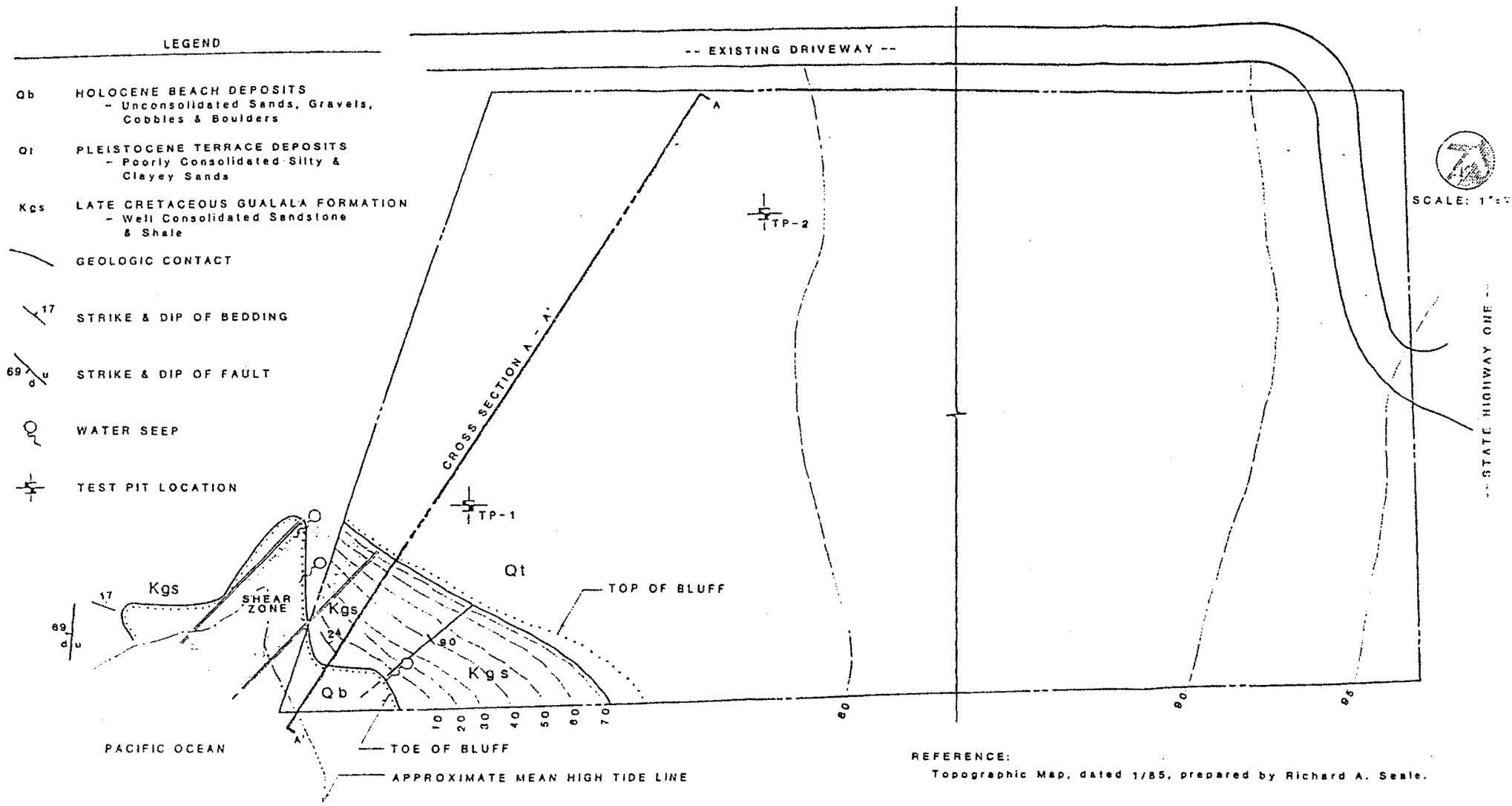


REFERENCE:

Portion of the USGS Gualala 7-1/2 Minute Quadrangle Topographic Map, 1977.

LEGEND

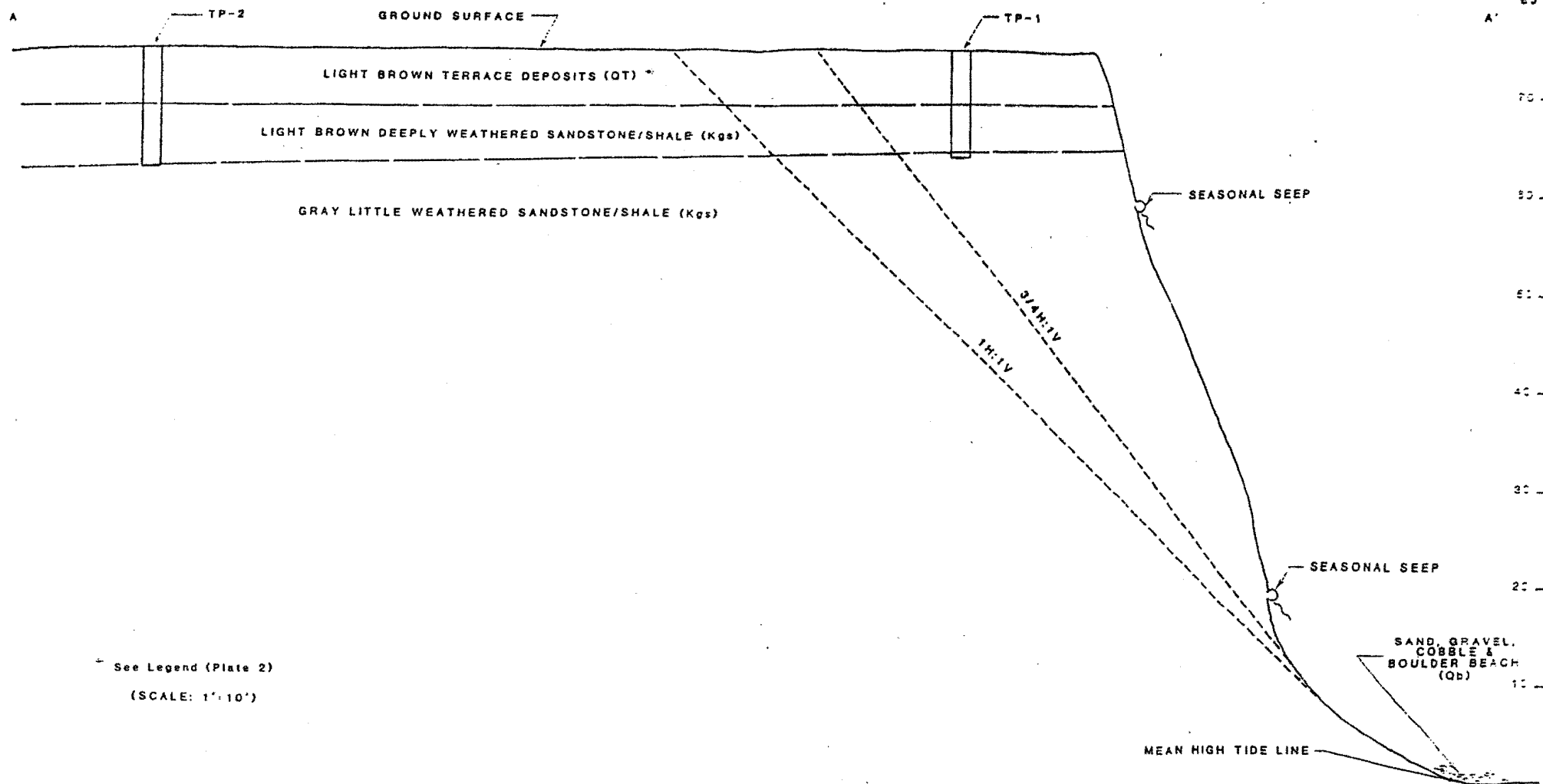
- Qb HOLOCENE BEACH DEPOSITS
- Unconsolidated Sands, Gravels, Cobbles & Boulders
- Ql PLEISTOCENE TERRACE DEPOSITS
- Poorly Consolidated Silty & Clayey Sands
- Kgs LATE CRETACEOUS GUALALA FORMATION
- Well Consolidated Sandstone & Shale
- GEOLOGIC CONTACT
- 17 STRIKE & DIP OF BEDDING
- 69/du STRIKE & DIP OF FAULT
- WATER SEEP
- ⊕ TEST PIT LOCATION



REFERENCE:
Topographic Map, dated 1/85, prepared by Richard A. Seale.

NORTH

SOUTH



See Legend (Plate 2)

(SCALE: 1"=10')

FEA FIELD ENGINEERING ASSOCIATES, INC.
GEOTECHNICAL CONSULTANTS

Appr. *EEO*
Date 6/9/86

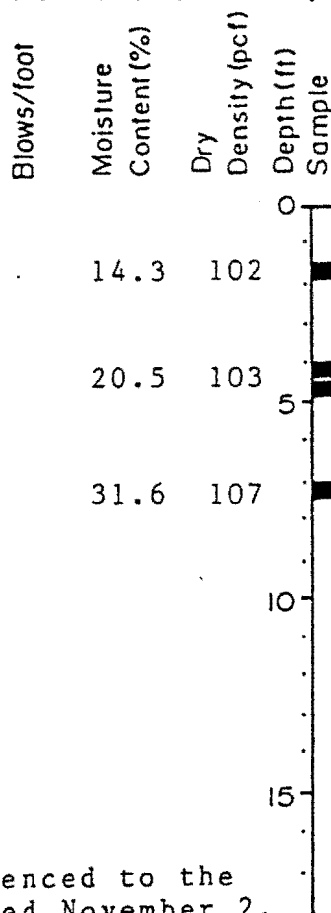
Hambrecht Residence
36350 Highway One
Mendocino County, California

Laboratory Tests

25.3 Percent Passing
No. 200 Screen

DS Sat 1422 (2000)
DS Sat 1874 (3000)
DS Sat 2816 (4500)

Elevations are referenced to the
Topographic Map, dated November 2,
1985, prepared by Richard Seale



Log of Test Pit 1
Equipment Backhoe/24" Bucket

Elevation 77.0'* Date 3/27/86

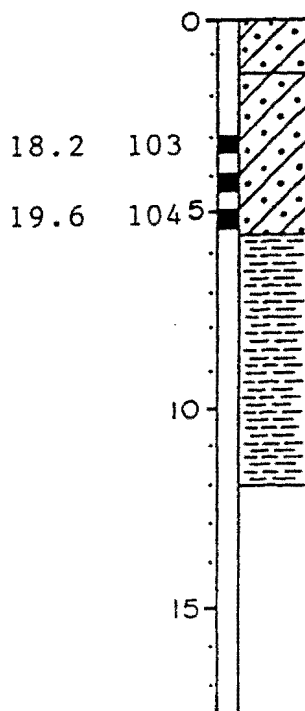
DARK BROWN CLAYEY FINE SAND (SC)
loose, moist, porous, some roots
LIGHT BROWN SILTY MEDIUM SAND (SM)
medium dense, wet
BROWN SILTY FINE TO COARSE SAND (SM)
dense, wet, rock fragments
LIGHT BROWN CLAYEY FINE TO MEDIUM SAND (SC)
medium dense, wet, some silty clay
LIGHT BROWN TO BROWN CLAYSTONE/ SHALE
closely fractured, soft to friable
deeply to moderately weathered
GRAY-BROWN SHALE
closely to moderately fractured, low to moderate hardness, moderately weathered

NOTES:

- 1) No caving
- 2) Minor seepage below 10'

Log of Test Pit 2
Equipment Backhoe/24" Bucket

Elevation 79.5' Date 3/27/86


















DARK BROWN CLAYEY SAND (SC)
loose, moist, porous, some roots
LIGHT BROWN CLAYEY FINE TO COARSE SAND (SC)
medium dense, wet to saturated, some silty sand and occasional rock fragments
GRAY-BROWN SHALE
closely fractured, low hardness
moderately weathered, some soft clay matrix within fractures

NOTES:

- 1) No caving
- 2) Moderate seepage from 4-8'
- 3) Minor seepage below 8'

SOIL CLASSIFICATION CHART AND KEY TO TEST DATA

Hambrecht Residence
36350 Highway One
Mendocino County, California
UNIFIED SOIL CLASSIFICATION SYSTEM

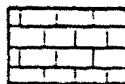
MAJOR DIVISIONS					TYPICAL NAMES
COARSE GRAINED SOILS MORE THAN HALF IS LARGER THAN NO.200 SIEVE	GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN No.4 SIEVE SIZE	CLEAN GRAVELS WITH LITTLE OR NO FINES	GW		WELL GRADED GRAVEL-SAND MIXTURES
			GP		POORLY GRADED GRAVELS, GRAVEL-SAND MIXTURES
		GRAVELS WITH OVER 12% FINES	GM		SILTY GRAVELS, POORLY GRADED GRAVEL-SAND-SILT MIXTURES
			GC		CLAYEY GRAVELS, POORLY GRADED GRAVEL-SAND-CLAY MIXTURES
	SANDS MORE THAN HALF COARSE FRACTION IS SMALLER THAN No.4 SIEVE SIZE	CLEAN SANDS WITH LITTLE OR NO FINES	SW		WELL GRADED SANDS, GRAVELLY SANDS
			SP		POORLY GRADED SANDS, GRAVELLY SANDS
		SANDS WITH OVER 12% FINES	SM		SILTY SANDS, POORLY GRADED SAND-SILT MIXTURES
			SC		CLAYEY SANDS, POORLY GRADED SAND-CLAY MIXTURES
FINE GRAINED SOILS MORE THAN HALF IS SMALLER THAN NO.200 SIEVE	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50	ML		INORGANIC SILTS & VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS, OR CLAYEY SILTS WITH SLIGHT PLASTICITY	
		CL		INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, CLEAN CLAYS	
		OL		ORGANIC CLAYS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY	
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50	MH		INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS	
		CH		INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS	
		OH		ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS	
HIGHLY ORGANIC SOILS			Pt		PEAT AND OTHER HIGHLY ORGANIC SOILS

KEY TO TEST DATA

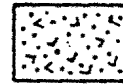
Consol — Consolidation	Shear Strength. psf	Confining Pressure. psf
LL — Liquid Limit	Tx 320 (2600)	Unconsolidated Undrained Triaxial
PI — Plastic Index	TxCU 320 (2600)	Consolidated Undrained Triaxial
EI — Expansion Index	DS 2750 (2000)	Consolidated Drained Direct Shear
SA — Sieve Analysis	FVS 470	Field Vane Shear
■ — "Undisturbed" Sample	UC 2000	Unconfined Compression
☒ — Bulk Sample	PP 2000	Field Pocket Penetrometer



Siltstone or Claystone



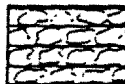
Limestone



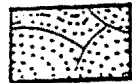
Tuff (Volcanic Ash)



Shale



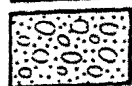
Chert

Deeply (Spheriodally)
Weathered Lava
With Hard Clasts

Sandstone



Serpentinite

Little Weathered (Hard)
Lava or Greenstone
(Altered Basalt)

Conglomerate



Metamorphic Rock



Granite

Bedding of Sedimentary Rocks

Massive
Very Thick Bedded
Thick bedded
Thin bedded
Very thin bedded
Laminated
Thinly laminated

Thickness of Beds

No apparent bedding
Greater than 4 feet
2 feet to 4 feet
2 inches to 2 feet
1/2 inch to 2 inches
1/8 inch to 1/2 inch
Less than 1/8 inch

Fracturing Intensity

Little
Occasional
Moderate
Close
Intense
Crushed

Size of Pieces

Greater than 4 feet
1 foot to 4 feet
6 inches to 1 foot
1 inch to 6 inches
1/2 inch to 1 inch
Less than 1/2 inch

Strength:Soft

Plastic or very low strength.

Friable

Crumbles by hand.

Low Hardness

Crumbles under light hammer blows.

Moderate Hardness

Crumbles under a few heavy hammer blows.

Hard

Breaks into large pieces under heavy, ringing hammer blows.

Very Hard

Resists heavy, ringing hammer blows and will yield with difficulty only dust and small flying fragments.

Weathering:Deep

Moderate to complete mineral decomposition; extensive disintegration; deep and thorough discoloration; many extensively-coated fractures.

Moderate

Slight decomposition of minerals; little disintegration; moderate discoloration; moderately-coated fractures.

Little

No megascopic decomposition of minerals; slight to no effect on cementation; slight and intermittent, or localized discoloration; few stains on fracture surfaces.

Fresh

Unaffected by weathering agents; no disintegration or discoloration; fractures usually less numerous than joints.

(GENERALIZED DESCRIPTION OF ROCK TYPES)

NAME	ALLEGED	ADDRESS	SECTION
...

Geologic boundary.

[Unknown side (relative or opponent).]

Downthrust side (relative or apparent).

Arrows indicate relative or dominant direction of lateral movement.

Arrow indicates direction of flow.

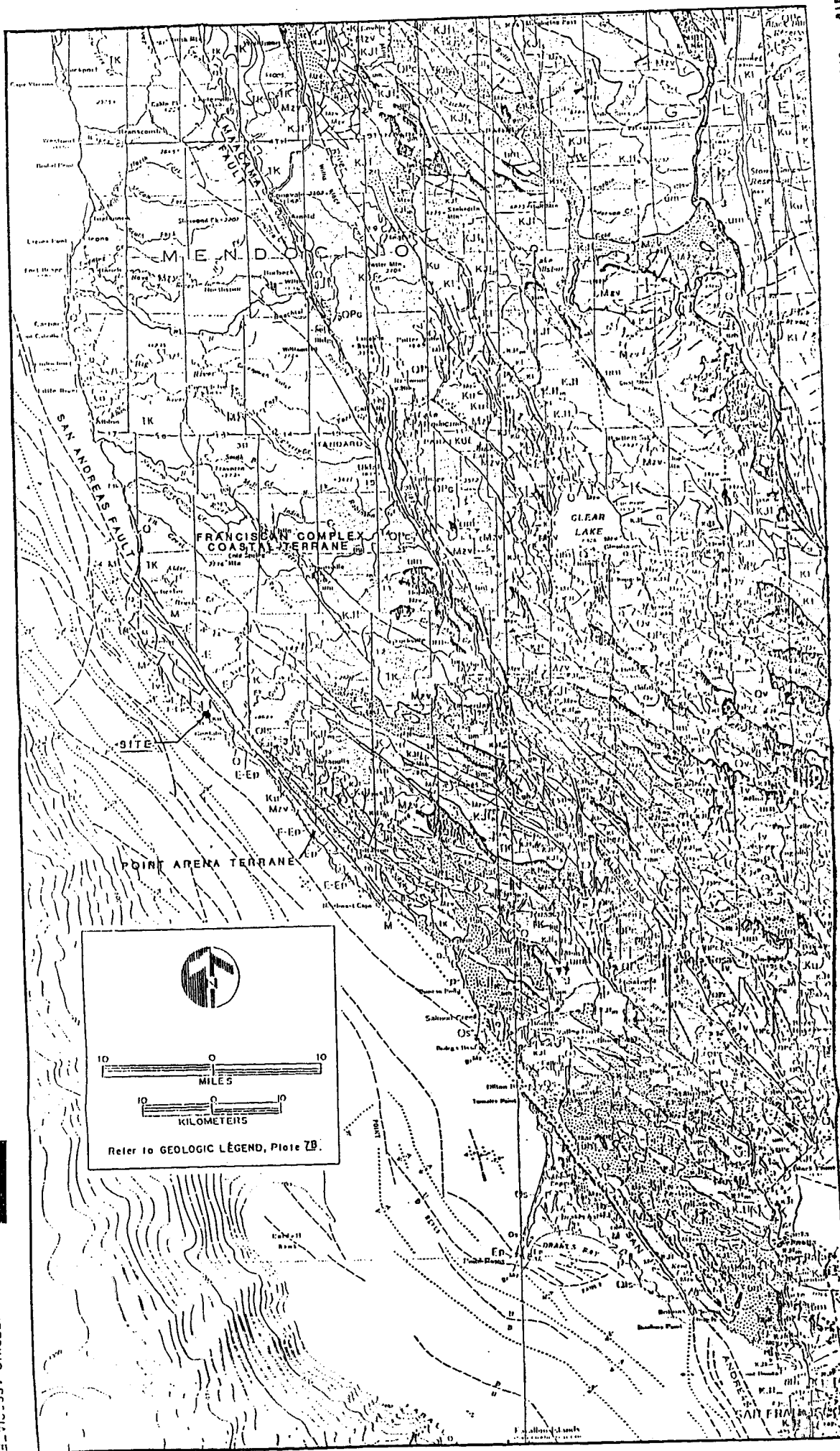
Thrust fault (looks on upper plate). Fault surface generally dips less than 45°, but locally may have been subsequently steepened.

Coast Range thrust, the upper boundary of is long-inactive, late Mesozoic subduction zone (looks on upper plate). Extends from Oregon southwest nearly to Santa Barbara, but has discontinuous outcrop owing to its modification by younger faults and unconformity by overlying deposits locally. Coast Range thrust is very clear.

Regional strike and dip of stratified rocks.

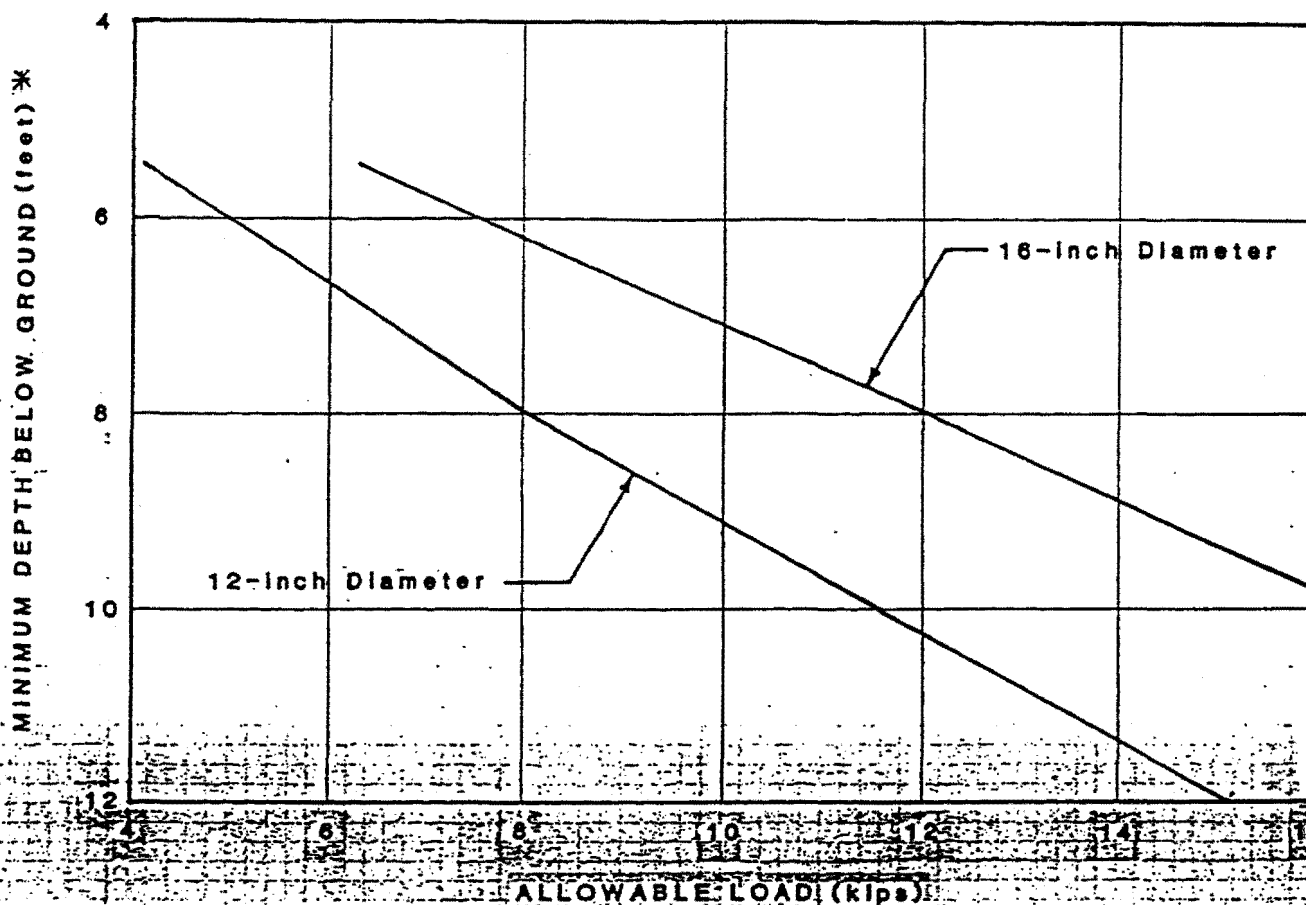
Dotted offshore and where concentrated under alluvium in the Great Valley and elsewhere. Concentrated beds may be confined to certain units, and their location may be erratic.

Volcanic or clastic zone. Most were active in Miocene time; some are Holocene, and a few are late Pliocene.



FEA

FIELD ENGINEERING ASSOCIATES
GEOLOGICAL CONSULTANTS

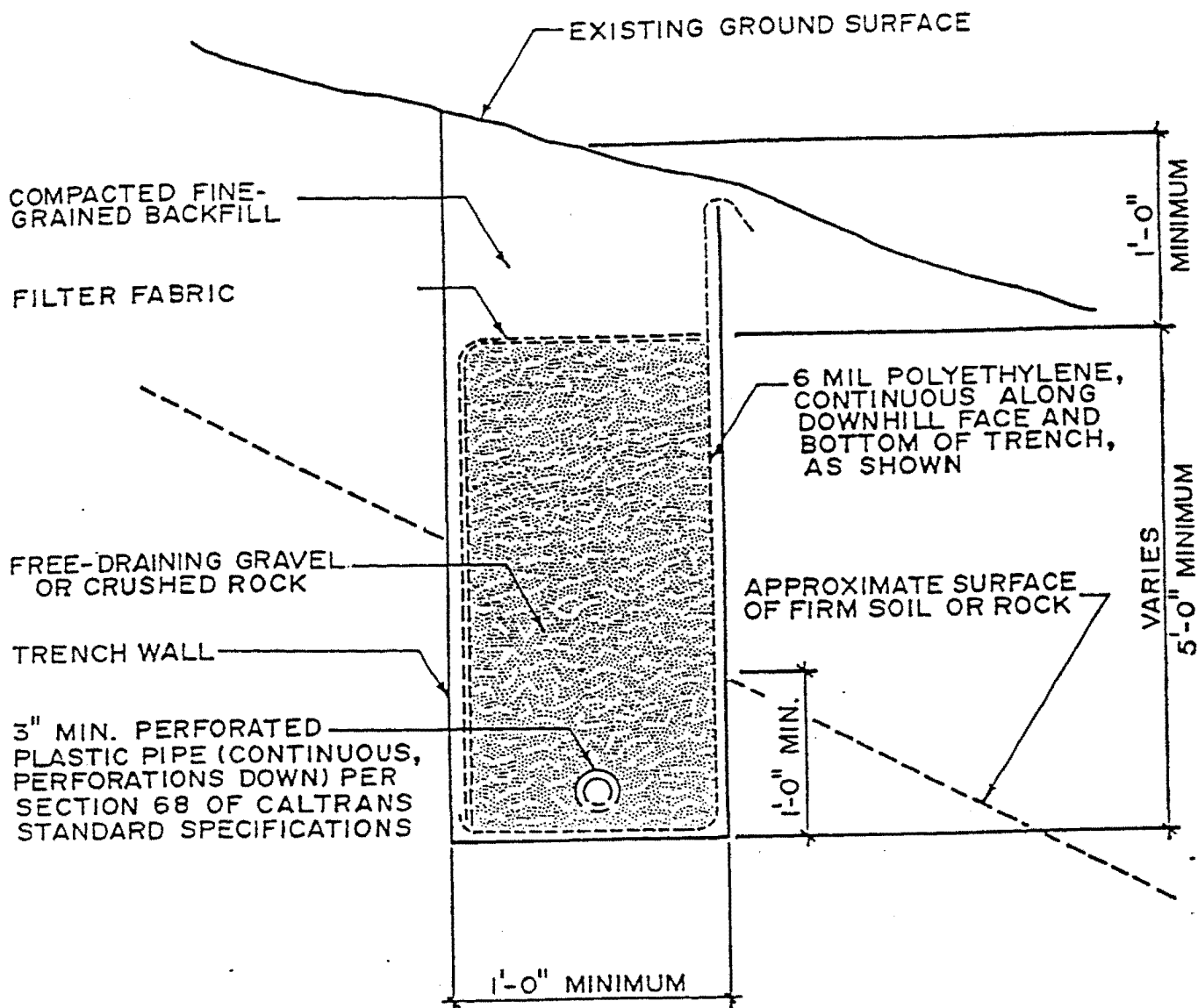


* Pier depths should be increased by the additional penetration required to meet any of the following conditions:

- 1) Depth of weak natural soil or non-engineered fill is no more than 1-1/2 feet.
- 2) Depth to weathered rock is no more than 5-1/2 feet
- 3) Between 25 and 45 feet from the bluff top, the minimum depth is the difference between that required to achieve a 3/4H:1V to the bluff toe and 5-1/2 feet (e.g., where the depth to a 3/4H:1V is 10-1/2 feet, increase the minimum depth by 5 feet).

Hambrecht Residence
36350 Highway One
Mendocino County, California

9



(Not to scale)

DISTRIBUTION

1 copy Dr. Howard Hambrecht
4268 Navajo
Toluca Lake, California 91602

3 copies Mr. Obie G. Bowman, AIA
Post Office Box 154
The Sea Ranch, California 95497



BACE Geotechnical
A Division of Brunsing Associates, Inc.

RECEIVED

SEP 8 1999

PLANNING & BUILDING SERV.
FORT BRAGG, CA
10828.2

September 1, 1999

Mr. David C. DeMartini
11714 Spriggs Way
Houston, TX 77024

RE: Review of Grading And Drainage Issues Report, And Grading And Drainage Plan, DeMartini Property, 36350 South Highway One, A. P. No. 144-130-28, Mendocino County, California, CDP#102-98

Dear Mr. DeMartini:

This letter presents the results of our review of the Grading and Drainage Issues report, dated August 3, 1999, and the Grading and Drainage Plan, dated August 2, 1999, both prepared by Paoli Engineering & Surveying. Prior to our reviews, our Principal Engineering Geologist met with you at the site on July 22, 1999.

The undersigned co-authored a Geotechnical Investigation report, dated June 9, 1986, and a Report Addendum, dated June 17, 1986, for the subject property while with the firm of Field Engineering Associates, Inc (FEA). BACE Geotechnical (BACE), a division of Brunsing Associates, Inc., prepared a Report Update, dated August 22, 1994.

BACE's Report Update modified FEA's drainage recommendations, since very little bluff erosion had occurred since 1986. Comparison of file photographs with current bluff conditions, as well as the 1963 and 1981 aerial photographs (both enlarged to a scale of one inch equals approximately 200 feet) show that the average retreat rate continues to be only about one inch, or less, per year.

A wetlands area has been identified on the central-northeast portion of the property subsequent to our 1994 Report Update; the wetlands area, as well as a sprinkler system to disperse runoff water across the property, are shown on the Grading and Drainage Plan. In addition, a planned, 18-inch high earth berm is intended to divert runoff on the northeast side of the residence. The Grading and Drainage Issues report proposes that some of the roof runoff be discharged onto splash blocks on the west and south sides of the house.

EXHIBIT NO. 12
APPLICATION NO. A-1-MEN-99-081
DeMartini
Geotechnical Supplement (2 pages)

Mr. DeMartini
September 1, 1999
Page Two

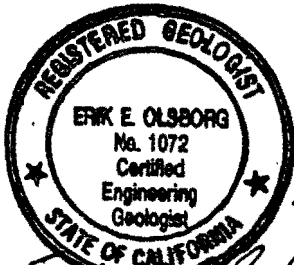
10828.2

Conclusions

Our reviews of the site and the referenced Paoli plans and report were generally favorable. In consideration of the various aspects of the project, the property site conditions, and the observed, relatively low bluff retreat rate, we concur with the proposed drainage measures. Directing the planned portion of the roof drainage toward the bluff will not result in an increase in the amount of runoff that is presently occurring. The project as planned, should have minimal adverse impact on the bluff stability. Monitoring of the bluff drainage conditions will be necessary after the project is completed. Maintenance of bluff edge vegetation, especially when augmented with a drip irrigation system during the summer months, is probably the best erosion control method at this site.

We trust the above information suits your needs at this time. Please contact us if you have questions, or if we can be of further service to you on this project.

Respectfully submitted,


Erik E. Olsborg
Engineering Geologist - 1072

EEO/PRD/mab

2 copies submitted

cc: Ed McKinley
David Paoli, Paoli Engineering & Surveying



Paoli Engineering & Surveying

DAVID E. PAOLI

California Registered Civil Engineer/Land Surveyor - 18341
459 North Harold Street (Post Office Box 737), Fort Bragg, CA 95437
Phone: 707-064-5225 - Fax 707-064-1120

Oregon Professional Engineer - 8426
Oregon Professional Land Surveyor - 1289
4429 Shasta Way, Klamath Falls, OR 97603
Phone & Fax: 541-884-6543

August 19, 1999

Mr. David DeMartini
11714 Spriggs Way
Houston, TX. 77024

EXHIBIT NO. 13

APPLICATION NO.
A-1-MEN-99-081

DeMartini

Correspondence

Re: Grading and Drainage Issues, CDP 102-98

Dear David:

In response to issues raised by County Planning in their staff report dated May 27, 1999, the following is my response to items related to my work. Specifically, staff has asked for *"An additional report from the engineer which identifies alternative ways of addressing site drainage issues. Specifically, the engineer should attempt to design a system which minimizes disturbance within the ESHA buffer area. The engineer should also address requirements for long-term maintenance of the drainage improvements, and in conjunction with the wetlands biologist, assess the potential for malfunction of failure of the leaching chamber system should the wetlands area be enlarged due to increased groundwater."*

The strategies adopted to address these issues include decreasing runoff to the pump station, increasing pump station holding capacity, developing a less intrusive drainage system, developing an emergency plan and developing a maintenance plan.

I. Decreasing Runoff to the Pump Station:

- a. The proposed ditch along the existing rocked access road has been eliminated. This will not, by itself, decrease runoff. However, by adding new rock as needed and minor regrading of this road, the runoff can be dispersed to the north of the road.
- b. Per several conversations with you and your discussion with the geotechnical consultant, I am proposing that some of the roof runoff on the west and south side of the house can be discharged to splash blocks on the west and south side of the house. The location of these splash blocks is shown on the revised grading and drainage plan dated 2 August 1999, an attachment to this letter. As the attached calculations show, this can decrease the roof runoff into the pump station to 2340 square feet of area.
- c. After further review of my use of a five-minute rainfall intensity and a 25-year frequency, I feel these numbers are appropriate in designing for inflow volume. Since roof runoff into the system is almost instantaneous and we should avoid overloading the pump chamber/pump capacity, I believe it is good to design for these high volumes. This inflow volume issue is not as important with the revised distribution plan as it was with the infiltration chamber concept.

2. Increasing Pump Station Holding Capacity

- a. The pump station can easily be increased in size to 1200 gallons, thereby increasing the margin of safety of pumping against a very severe downpour and adding more time for repair if a system failure should occur during a rainstorm. The pump station should be concrete construction, similar to a septic tank of the same size, and calculations should assure the concrete is heavy enough to avoid having the tank float out of the ground when it is empty and the ground is saturated.

3. Design a system which minimized disturbance within the ESHA buffer area:

- a. Three alternatives are postulated.

- The "Do Nothing" Alternative which would allow the home to be constructed and use a conventional roof gutter system with splash blocks. This alternative would have less effect on the ESHA than any of the other alternatives studied. It would also cost substantially less money than the other alternatives. However, there appear to be policies in place that have already led to a County staff review of this alternative, which review found it unacceptable.
- The "Pump Station/Leaching Chamber" Alternative, as reviewed in the May 27, 1999 staff report. This alternative would collect roof and other surface runoff in a pump station, then pump it to a series of leaching chambers surrounding the ESHA.
This alternative could have its impact decreased by decreasing the volume pumped to the leach chambers, outlined in sections 1 and 2 of this report. With lower volumes, fewer chambers would be needed. Previous calculations of 5,800 gallons per peak hour led to a design requiring nine leaching chambers. The revised and attached calculations of 3,390 gallons per peak hour would require five leaching chambers.
Of the three alternatives studied, this is the most intrusive, because the leaching chambers are close to the ESHA, and the area excavated (about 950 square feet of surface area with five leaching chambers) is much larger than the other alternatives.
- The "Pump Station/Sprinkler System" Alternative is presented here for the first time. This system is rated as the preferred alternative. The basic concept is to collect the runoff as before, then pump it to a series of high-volume sprinkler heads. This alternative requires about 310 square feet of surface area to be excavated during construction.

- b. The attached Grading and Drainage Plan shows a sprinkler system. Only two of the sprinkler heads are as close to the wetlands as the infiltration chambers were. The only real disturbance by construction is the trenching; trenches are about eight inches wide by 18 inches deep and for the most part are backfilled with the soil removed in the trenching process. The sprinkler heads will be above ground from one to three feet depending on the vegetation at that particular spot, and can be largely concealed by vegetation. The sprinkling will cover the entire lot east of the berm, thus adding up to one-quarter inch of "rainfall" to this area during the one-hour, 25-year design storm.
4. Develop an Emergency Plan:
- a. One additional advantage of the sprinkler system over the leaching trench concept is that it will continue to function as designed even if the ground becomes completely saturated. The leaching trenches, analogous to a leach line system, will stop to leach and produce overflows at the distribution boxes when the ground will not accept any further effluent.
 - b. The emergency generator, shown on the site plan, will provide a standby power source to the pump station during power outages. Modern technology handles the automatic switching of power.
 - c. An automatic visual and audible high water alarm, identical to that used in the septic system pump chamber, will be installed in case of pump malfunction.
 - d. As previously discussed, increasing the pump chamber size allows a longer emergency response time.
 - e. Finally, an emergency overflow pipe from the pump chamber is proposed and shown on the drainage plan. Unlike the septic system, if this pipe flows, the effluent will be pure rainwater. The normal grading away from the house will protect the house and the water will flow towards the south property line, then west once past the house.
5. Develop a Maintenance Plan:
- a. A written schedule/checklist including cleaning gutters, downdrains and pump chamber can be developed. Checking floats, sprinkler heads, high water alarm and operating the system as a test each September would be included.
6. Other Thoughts on the Project:
- a. County staff states on Page CPA-6 that the natural flow of surface water will be blocked by the berm.

Mr. David DeMartini
August 19, 1999
Page Four

This is true in a sense, but if there were no berm the natural flow of surface water would be blocked the same way by the proposed residence, driveway and leach field. The berm, then, provides more protection for improvements east of the house such as the garbage area and the electrical generator.

Raising the house to allow natural sheet flow of drainage under the house bumps against the subdivision height limitation, may lead to wood subfloor damage, and adds considerably to the difficulty of constructing a concrete slab floor for the garage and shop.

- b. County staff states on Page CPA-7 that under the stormwater collection scheme proposed, it is anticipated that the amount of groundwater will increase on this parcel. I don't agree with this. The amount of rainfall falling on the parcel is the same, and we are not diverting any off-site runoff to the property. Therefore, the amount of groundwater should not increase.
- c. Per County staff special conditions, the underground utilities are moved to the north property line.

I hope this letter/report will assist in moving the project along. If you have any questions, please call me at 964-5225.



DEP:FBD9646E

EXP 6-30-01

Sincerely,

David E. Paoli

David E. Paoli
Professional Engineer/Land Surveyor

STORM RUNOFF, COLLECTION & DISTRIBUTION

A. RUNOFF

① Total Roof Area	4120 S.F.
MINUS LIBRARY (AREA A)	- 380
MINUS B & D	- 250
MINUS DINING RM C	- 520
MINUS PORTION L. ROOM E & F	- 630
SUBTOTAL	2340 SF

Driveway 20' x 44' x 0.6 FACTOR 530

TOTAL RUNOFF AREA CONSIDERED 2870 SF

② Rainfall Intensity

Since time of concentration will be very short before runoff occurs, I recommend a 5 minute duration, 25 year frequency

Per CalTrans Curves $I = 4.5$ inches/hour
or 0.0063 feet/minute

③ Maximum accumulating volume

$$Q_{max} = 0.0063 \times 2870 = 18.1 \text{ C.F./MIN}$$

135 gallons/minute

∴ Pump rate should equal or exceed 135 gpm

④ Check 1 hour accumulation

$$I_{60} = 1.9 \text{ in/hr} = 0.158 \text{ ft/hr}$$

$$Q_{60} = 0.158 \times 2870 \times 7.48 = 3390 \text{ gallons/peak hour}$$

B. COLLECTION

Provide a 1200 gallon pump station; in case of pump failure, 15 to 20 minutes is available before pump chamber overflows.



C. DISTRIBUTION

AREA TO BE SPRINKLED \approx 22,900 S.F.

$$\begin{aligned} \text{AVE APPLICATION/HR} &= \frac{3390 \text{ GALLONS}}{7.48 \text{ GAL/FT}^3} \times \frac{12''/\text{FT}}{22,900 \text{ FT}^2} \\ &= 0.24 \text{ INCHES/HOUR} \end{aligned}$$

22-141 50 SHEETS
22-142 100 SHEETS
22-144 200 SHEETS

17
1" = 10'

DOWNSPOUT
AND
SPATTER PLATE

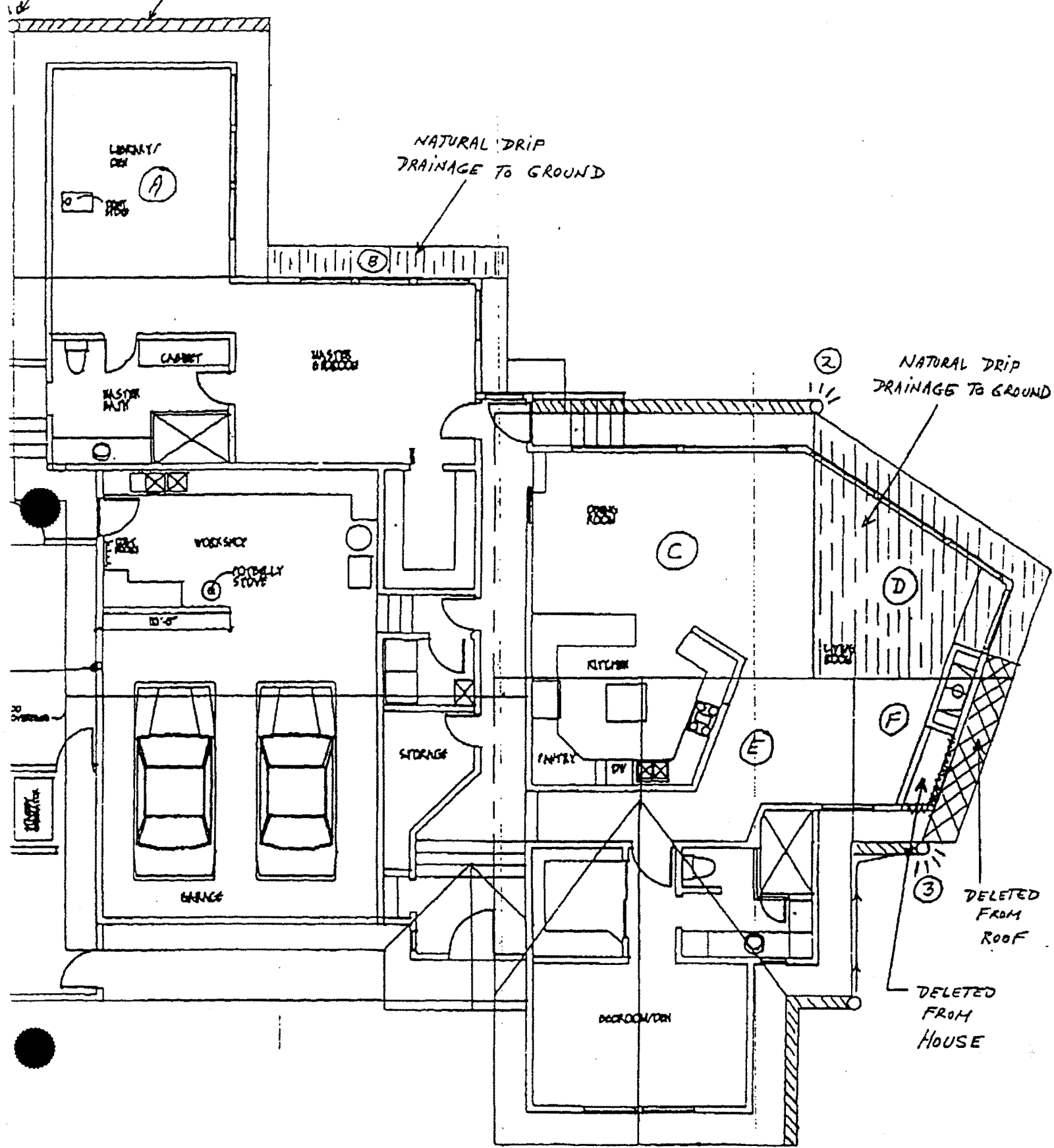
GUTTER

NATURAL DRIP
DRAINAGE TO GROUND

NATURAL DRIP
DRAINAGE TO GROUND

DELETED
FROM
ROOF

DELETED
FROM
HOUSE



CALIFORNIA COASTAL COMMISSION

NORTH COAST DISTRICT
PO BOX 4908
EUREKA, CA 99502-4908



December 13, 1999

Board of Supervisors
County of Mendocino
501 Low Gap Road, Room 1440
Ukiah, California 95482

Re: County of Mendocino CDP # 102-98- DeMartini

Dear Supervisor:

We have recently become aware that the above referenced coastal development permit has been appealed to the County Board of Supervisors by David DeMartini the permit applicant. Apparently, Mr. DeMartini has appealed the coastal development permit in part because of special condition #7 contained in the approved coastal development permit. Special condition #7 addresses the geologic hazards associated with developing the subject bluff top parcel and it is a modified version of a condition that the Coastal Commission has applied to a similar project in the area and in other permits for blufftop development. Special condition #7 prohibits the future construction of bluff revetment structures and requires for the removal of approved structures in the event that they are threatened or damaged by unexpected bluff retreat.

It has been the Commission's experience that in some instances unexpected bluff retreat can occur and threaten or destroy approved projects even when a thorough professional geologic evaluation indicates that the proposed development will be safe from bluff retreat hazards. The Commission's intent in imposing special conditions that prohibit future seawall construction is to prevent more of the coastline from being armored and avoiding the resulting impacts on aesthetics, habitat values, geologic stability in adjoining areas, and loss of shoreline sand supply and beach area. The condition warns developers of blufftop structures that building on blufftops is an inherently risky endeavor, that developers proceed at their own risk, and that developers will not be granted permits for seawalls if bluff retreat later threatens their development. Special condition #7 is consistent with the intent of the County's LCP hazard management policies. Furthermore, the inclusion of special condition #7 may reduce the potential for the project to be appealed to the Coastal Commission. Therefore, the Commission staff supports the County's inclusion of special condition #7 in the above mentioned coastal development permit.

Please feel free to contact me at (707) 445-7833 if you have any questions regarding this matter.

Sincerely,

Robert S. Merrill
District Manger

cc: Raymond Hall, Mendocino County
Doug Zanini, Mendocino County

EXHIBIT NO.	14
APPLICATION NO.	A-1-MEN-99-081
DeMartini	
Staff Comments to County	

SIERRA
CLUB



REDWOOD CHAPTER

Office: (707) 544-7651 Fax: (707) 544-9861

632 Fifth Street, Santa Rosa, CA 95402

Mail: P.O. Box 466, Santa Rosa, CA 95402-0466

January 8, 2000

Re: A-1-MEN-99-081

Mr. Robert Merrill
California Coastal Commission
North Coast District Office
P.O. Box 4908, Eureka, CA 95502-4908

Dear Mr. Merrill,

The Redwood Chapter of the Sierra Club is joining with Friends of Schooner Gulch in appealing the December 7 decision of the Mendocino County Board of Supervisors regarding the David DeMartini proposal on Old Collins Landing. The parcel is bounded on one side by Highway 1 and on the other by the Pacific Ocean.

The original staff work by Mendocino County was good. Supervising Planner Doug Zanini applied conditions derived from those applied by the Coastal Commission in the Klute proposal, which is on Highway 1 at Iversen Point. The Director of Planning, Ray Hall, approved the permit and denied a variance requested by Mr. DeMartini, which would have brought his house closer to that of his neighbor, who objected on the grounds of a bluff undercut and possible damage to a large cypress tree.

Mr. DeMartini appealed. The board of Supervisors correctly upheld Mr. Hall's decision denying the variance. The Board of Supervisors also removed the hazard condition derived from the Commission action on Klute.

At the time of the Board of Supervisors' decision the hazard language in Klute was not final. We request that the Commission apply the final conditions in Klute to the DeMartini proposal.

The photographs of dead and dying cypress trees which we presented to the Commission as a non-agenda item on November 4, 1999, were taken only a few hundred feet from the DeMartini house site. Concerns about survival of other cypress trees in the Old Collins Landing area are valid.

Sincerely,

Julie Verran
Julie Verran for Sierra Club Redwood Chapter

RECEIVED
JAN 18 2000

CALIFORNIA
COASTAL COMMISSION

To explore, enjoy and protect the earth

EXHIBIT NO.	15
APPLICATION NO.	A-1-MEN-99-081
DeMartini	
Drainage Report	

Friends of Schooner Gulch

A Watershed Organization

P. O. Box 4, Point Arena, California 95468
(707) 882-2001, Fax (707) 882-2011

Executive Committee:

Sarah Flowers
Charles Peterson
Peter Reimuller

RECEIVED
JAN 10 2000

January 6, 2000

CALIFORNIA
COASTAL COMMISSION

California Coastal Commission,
North Coast District Office,
710 E. Street, Suite 200,
Eureka, CA 95501

Re: DeMartini A-1-MEN-99-081

Commissioners:

Regretfully, full-time employment precludes our attendance at your meeting.

The Mendocino County Board of Supervisors reversed the Coastal Permit Administrator's recommendation that this permit include a deed restriction prohibiting future sea walls on the property.

Future sea walls and/or retaining walls along the bottoms or tops of the cliffs of this area would constitute a major assault on coast. Therefore, we strongly recommend that the permit contain the Coastal Permit Administrator's recommended condition whereby the owner of the property may not in the future build a sea wall, retaining wall, abutment, armoring structure, drainage structure, or stairway at the top or bottom of the cliff, nor may heroic measures be taken to protect the cliffs from natural recession.

All Sea Walls Will Eventually Fail

One would assume that if the cliff were to retreat even a few feet into the cliffside setback, then the owner might want to build a sea wall to protect the house at that time. The cliff could retreat that amount 10 years from now, or 150 years from now. A sea wall in this location would be visible from the adjoining properties.

From the Coastal Ridge to the Pacific Ocean, since 1986.

The only thing certain is that the sea will not stop gnawing at the land, and the cliff will recede sometime in the future, when nobody knows. And the cumulative impact of driveway runoff, roofs, and septic wetness will accelerate the cliff recession rate of the past. Therefore the problem of a future sea wall will not go away.

It is generally acknowledged in the scientific community, and even the popular press, that the future will bring a rising sea level because of global warming. Any rise in the average sea level will only accelerate the rate of cliff recession.

Conclusion

Sooner or later the owner of this parcel will want a sea wall, or the house will be abandoned. And if that wall is allowed, sooner or later it will fail, and the house will then become abandoned.

We have no objection to a house on this parcel. We primarily want to assure the community that there will be no sea walls in the future. We feel it is appropriate for the owner to accept responsibility for the closeness to the cliff, and the cleaning up of the mess when it all falls away in the future.

Obviously if the wall were wanted now it would not be permitted for very good reasons. Still, the applicant wants to develop this marginally safe lot, and should be willing to accept such a simple request from the community.

In the event that the Commission feels that sea or retaining walls would be acceptable to the Coastal Act in this location in the future, then at the very least, the Commission should require that the applicant agree to remove debris when those walls fail in the future. Likewise, the Commission should require that the applicant agree to be denied access to public funds for cliff subsidence disaster control or remediation in the future.

For the record, we are holding that there should be no estimated life span for a house on these or any other constantly eroding cliffs anywhere in California. The economics of building, remodeling, and protecting existing developments on desirable coastal parcels, and the high construction quality ensured by modern building codes, would both indicate that this and other "75 year"

developments will be here long after 75 years has passed. Therefore, it should be assumed that homes such as this one will become a public health and welfare problem when the cliffs finally do crumble away.

Every building permit in the Coastal Zone should be conditioned to prohibit sea walls, no matter how far back from the coast. The future will bring us many changes in the cliffs, and we do not know how much or where. The simplest solution to this whole problem is to prohibit all sea walls in all locations, and to require deeded restrictions with all permits as a Standard Condition of Approval.

Sincerely,

A handwritten signature in cursive script, appearing to read "Peter Reimuller". The signature is fluid and extends across the width of the text area.

Peter Reimuller
Corresponding Secretary
Friends of Schooner Gulch