

CALIFORNIA COASTAL COMMISSION

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Staff: Tiffany S. Tauber
Staff Report: October 26, 2001
Hearing on Revised Findings: November 14, 2001
Commission Action on Revised Findings:

STAFF REPORT: REVISED FINDINGS

APPLICATION NO.: 1-92-200-A1

APPLICANT: **CARL SANDERS**
(formerly WILEY AND MARY EATON)

PROJECT LOCATION: 17270 Ocean Drive, south of Ft. Bragg, Mendocino County (APN 017-320-44)

DESCRIPTION OF PROJECT PREVIOUSLY APPROVED: Construction of a one-story, 20-foot-high, 4,049-square-foot single-family residence with an attached garage, driveway, septic system, and water line to an existing well.

DESCRIPTION OF AMENDMENT REQUEST: Addition of an 840-square-foot, one-story, 12-foot-high sunroom to enclose a swimming pool and spa.

COMMISSIONERS ON THE PREVAILING SIDE: Dettloff, Allgood, Hart, Lee, McCoy, Potter, Reilly, Woolley, Wan

GENERAL PLAN DESIGNATION: Rural Residential, 5-acre minimum; Planned Development, 2-acre minimum – RR-5 PD(2)

ZONING DESIGNATION: Rural Residential, 5-acre minimum, Planned Development

LOCAL APPROVALS RECEIVED: Mendocino LCP Consistency Review

SUBSTANTIVE FILE DOCUMENTS: (1) CDP# 1-89-28 (E.F.S Associates); (2) CDP# 1-92-200 (Eaton); (3) Mendocino County LCP

STAFF NOTES:

1. Background & Procedure

The Commission held a public hearing and approved the permit amendment at the meeting of August 8, 2001. The adopted conditions and findings differ slightly from those contained in the written staff recommendation dated July 26, 2001. At the public hearing, the staff revised its written recommendation to add Special Condition No. 4. The basis for the condition is found in the Geologic Hazards and New Development finding in section IV(2.) on pages 6-12 of the staff report.

The Commission adopted the staff recommendation as modified. As the Commission's action on the project differed from staff's written recommendation, staff has prepared the following set of revised findings for the Commission's consideration as the needed findings to support its action at the hearing. The Commission will hold a public hearing and vote on the revised findings at its November 14, 2001 meeting. The purpose of the hearing is to consider whether the revised findings accurately reflect the Commission's previous action and not to reconsider the merits of the project or the appropriateness of the adopted conditions. Public testimony will be limited accordingly.

2. Standard of Review

The Coastal Commission effectively certified Mendocino County's LCP in October of 1992. Pursuant to Section 30604 of the Coastal Act, after effective certification of a certified LCP, the standard of review for all coastal permits and permit amendments for developments located between the first public road and the sea is the certified LCP and the public access policies of the Coastal Act.

I. MOTIONS AND RESOLUTIONS

MOTION, STAFF RECOMMENDATION AND RESOLUTION TO ADOPT REVISED FINDINGS:

The staff recommends that the Commission adopt the revised findings in Section IV below, in support of the Commission's action on August 8, 2001, approving the project with conditions. The proper motion is:

Motion:

I move that the Commission adopt the revised findings dated October 26, 2001 in support of the Commission's action on August 8, 2001 approving Coastal Development Permit Amendment No. 1-92-200-A1 with conditions.

Staff Recommendation of Approval:

Staff recommends a YES vote on the motion. Passage of this motion will result in the adoption of revised findings as set forth in this staff report. The motion requires a majority vote of the members from the prevailing side present at the August 8, 2001 Commission hearing, with at least three of the prevailing members voting. Only those Commissioners on the prevailing side of the Commission's action on the permit are eligible to vote. See the listing of eligible Commissioners on Page 1.

Resolution to Adopt Revised Findings:

The Commission hereby adopts the findings set forth below for Coastal Development Permit Amendment No. 1-92-200-A1 on the ground that the findings support the Commission's decision made on August 8, 2001 and accurately reflect the reasons for it.

ACTION ON COASTAL DEVELOPMENT PERMIT ON AUGUST 8, 2001

Adopted Resolution to Approve Permit Amendment:

The Commission hereby approves the coastal development permit amendment and adopts the findings set forth below on grounds that the development as amended and subject to conditions will be in conformity with the policies of the certified Mendocino County Local Coastal Program and the public access policies 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 amended 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 amended development on the environment.

II. **STANDARD CONDITIONS:** (See attached Appendix A)

III. **SPECIAL CONDITIONS:**

1. **Design Restrictions**

All exterior materials, including the roofing materials and windows, shall be non-reflective to minimize glare.

2. **Pool Maintenance**

Draining of the proposed pool and spa for on-going maintenance purposes shall occur by use of a pump truck to discharge water off-site. The pool and spa shall not be drained into the existing septic system or be allowed to drain over the bluff edge.

3. **Sedimentation Control**

- (a) Silt fencing to trap sediment contained in sheet flow shall be installed around the immediate perimeter of the construction area including the area necessary for maneuvering construction equipment prior to any ground-disturbing activities. Silt fences shall be inspected regularly and sediment removed when it reaches 1/3 the fence height.
- (b) On-site vegetation shall be maintained to the maximum extent possible during construction and any disturbed areas shall be replanted following project completion.
- (c) All on-site debris stockpiles shall be covered and contained at all times.

4. **Deed Restriction**

- A. By acceptance of this permit, the applicant agrees, on behalf of themselves and all successors and assigns, that no protective devices, including but not limited to the rock placed in the drainage swale and along the bluff face without benefit of a coastal development permit, shall be placed, retained, or modified for the purpose of protecting the development approved pursuant to Coastal Development Permit No. 1-92-200-A1 from the threat of damage or destruction from waves, erosion, storm conditions, bluff retreat, landslides, or other natural hazards in the future. By acceptance of this permit amendment, the applicant hereby waives, on behalf of themselves and all successors and assigns, any rights to obtain a coastal development permit for any protective device, including but not limited to the rock placed in the drainage swale and along the bluff face

without benefit of a coastal development permit, for the purpose of protecting the development approved pursuant to Coastal Development Permit No. 1-92-200-A1 that may exist under Public Resources Code Section 30235 or under Mendocino County LUP Policy No. 3.4-12 and Mendocino County Coastal Zoning Ordinance No. 20.500.020(E)(1).

- B. PRIOR TO THE ISSUANCE OF COASTAL DEVELOPMENT PERMIT AMENDMENT NO. 1-92-200-A1, the applicants 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.

IV. FINDINGS AND DECLARATIONS FOR APPROVAL

The Commission hereby finds and declares:

1. Site Description & Project Description

The subject site is an approximately 11-acre blufftop parcel located west of Highway One, between Ocean Drive and the Pacific Ocean, 2 ½ miles south of Ft. Bragg in Mendocino County. The western portion of the property has gently undulating topography that is terminated along the west by a very steep beach bluff face. The property and surrounding area is designated as "highly scenic" in the certified Mendocino LCP.

The site is currently developed with a single-family residence approved under Coastal Development Permit No. 1-92-200 (Eaton). The original permit approved the development of a 4,049-square-foot, single-family residence with an attached garage, driveway, septic system, and water line to an existing well. The subject parcel was created by a five-lot subdivision of a 56-acre parcel that was approved by the Commission in 1989 (CDP #1-89-28, E.F.S. Associates). The subdivision was approved with six (6) special conditions to ensure the protection of public access, visual resources, environmentally sensitive habitat areas, and archaeological resources. The conditions included a requirement that an offer to dedicate an easement for public access to the blufftop and beach be recorded. The offered vertical easement is located approximately 300 feet to the north of the subject site at its closest point on another parcel of the subdivision. The original subdivision approval also required the delineation of 100' x 100' building envelopes on each of the five created parcels, including the subject parcel. The building envelopes were delineated with a 75-foot setback from the bluff edge and away from the environmentally sensitive habitat areas present at the site. The existing residence was constructed within the designated building envelope.

The proposed amendment request seeks approval for the addition of an 840-square-foot, one-story, 12-foot-high sunroom to enclose a proposed swimming pool and spa on the southwest side of the existing residence. The proposed addition does not extend outside of the 100' x 100' building envelope delineated by the original subdivision approval.

2. Geologic Hazards and New Development

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 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 subject property is located on a blufftop parcel that overlooks the ocean. The bluff slopes are variable in steepness, generally from 25 to 75 degrees. The bluffs are eroded in some areas and there are a number of seacaves along the western edge of the parcel. A small drainage is present to the south of the existing residence and proposed addition that exhibits effects of erosion at the edge of the bluff (referred to as the drainage/erosion feature). The area at the top of the bluff is well vegetated with local grasses and other plants.

The original subdivision (CDP #1-89-28, E.F.S. Associates) established building envelopes that were required to be setback 75 feet from the bluff edge. This setback was based on prior geologic recommendations to ensure that no construction would take place on the subject property where development might result in erosion, geologic instability or destruction of the site or surrounding area, or require any protective devices that might substantially alter natural landforms.

The proposed project involves the addition of an 840-square-foot sunroom to enclose a proposed pool and spa on the southwest side of the existing residence that would be constructed within the designated building envelope. The applicant has submitted a Bluff Hazard Assessment and Geotechnical Evaluation for the proposed project prepared by Questa Engineering Corporation dated November 3, 2000. According to the geotechnical report, the coastal bluff consists of sandstone bedrock with interbedded shale and siltstone. Overlying the bedrock are alluvial soils and local terrace deposits that are dominated by sands and silty sands. Erosion of the bluff face occurs due to wave cutting of the bedrock at the toe of the bluff and of the mid-bluff during heavy storms and from runoff from the land above the bluff.

Mendocino County LUP Policy 3.4-7 requires 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) and that setbacks be of sufficient distance to eliminate the need for shoreline protective works. Based on an analysis of aerial photographs and site observations, the geotechnical report estimates an average bluff retreat rate for the overall bluff of less than 0.2 meters per year, and less than 0.5 meters per year from a drainage swale at the bluff near the southwest corner of the property. In accordance with LUP Policy 3.4-7 and

Coastal Zoning Code Section 20.500.020, the minimum setback is calculated from the setback formula: $\text{Setback(meters)} = \text{structure life (75 years)} \times \text{retreat rate (meters/year)}$. Based on this formula, the geotechnical report indicates that the minimum setback for the pool house structure from the coastal bluff should be 15 meters (49.2 feet) and the minimum setback from the drainage swale should be 37.5 meters (123 feet). According to the geotechnical report, the distance from the proposed pool house addition to the bluff edge, at the nearest point, is approximately 96.5 feet and the distance from the on-site drainage swale at the edge of the bluff to the proposed pool house is approximately 127 feet. Thus, the geotechnical report concludes that the proposed setback is sufficient to provide for a 75-year design life of the structure.

In the course of processing the application, Commission staff became aware of rock placed in the drainage swale feature along the bluff face without benefit of a coastal development permit. The geotechnical report referred to 6 to 12-inch diameter rock rip-rap that had been dumped into the drainage swale and recommended that the rip-rap be improved using biotechnical stabilization methods. This unpermitted development is not before the Commission in the context of this permit amendment application and thus, the unpermitted violation remains unresolved. The applicant's geologists submitted a letter of clarification dated July 20, 2001 stating that:

“It is our opinion that the Pool House may be constructed without stabilizing the existing drainage/erosion feature. However, we also had recommended that the area of the existing drainage/erosion feature at the edge of the coastal bluff (in the area rock rip-rap was placed) be stabilized by biotechnical engineering methods. We understand that the rock rip-rap in the eroding drainage was placed without permit. The recommended work is intended to stabilize the area of the rock rip-rap which is in an unstable configuration. The recommended biotechnical stabilization will not eliminate coastal bluff retreat, but is intended to retard the process and give the coastal bluff a more natural vegetated appearance.”

In the original report, the geologists conclude that the proposed addition is set back a sufficient distance from the bluff face and swale to provide for at least a 75-year design life of the structure based on bluff retreat rates established from a series of aerial photographs dating back to 1942 that were taken prior to any rock being placed in the drainage swale. Based on the clarifications of the geologist and the fact that the set back for the addition was established based on erosion rates occurring prior to the placement of the rock, the Commission finds that the proposed addition to the existing residence is not dependent on the unpermitted rock slope protection to ensure its geologic stability and structural integrity for the 75 year economic lifespan of the development. (Commission staff will pursue resolution of the unpermitted development with the applicant and Mendocino County).

However, the geologists' letter also states that the geologists still recommend that the rock be stabilized using biotechnical engineering methods. These recommendations were made because the geologist indicates that the rock as placed may actually be contributing to erosion since it was placed in an unstable configuration; these recommendations were not made because the rock is

needed to protect the proposed addition. To ensure that this recommendation is not used as a basis for the applicant to seek retention of the rock as a necessary feature to protect the proposed addition, the Commission attaches Special Condition No. 4. This condition requires that by acceptance of this permit amendment, the applicant waives, on behalf of themselves and all successors and assigns, any rights to obtain a coastal development permit for any protective device, including but not limited to the rock placed in the drainage swale and along the bluff face without benefit of a coastal development permit, for the purpose of protecting the development approved pursuant to Coastal Development Permit No. 1-92-200-A1 that may exist under Public Resources Code Section 30235 or under Mendocino County LUP Policy No. 3.4-12 and Mendocino County Coastal Zoning Ordinance No. 20.500.020(E)(1). The special condition also requires that a deed restriction be recorded that precludes future development of protective devices to protect the approved addition. These requirements are consistent with LUP policy 3.4-7 and Section 20.500.010 of the Mendocino County Coastal Zoning Ordinance, which state 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. Moreover, the Commission finds that the proposed development as amended could not be approved as being consistent with Zoning Code Section 20.500.010 if projected bluff retreat would affect the proposed development as amended and necessitate construction of a protective device to protect the new additions. 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 such as the proposed addition is not permitted by the LCP.

The applicant is proposing to construct additions to an existing residence. Portions of the additions will be constructed as close as approximately 96 feet to a bluff that is gradually eroding. Thus, the additions will be located in an area of high geologic hazard. The new development can only be found consistent with the above-referenced provisions if the risks to life and property from the geologic hazards are minimized and if a protective device will not be needed in the future. The applicant has submitted information from a registered engineering geologist which states that if the new development is set back at least approximately 49 feet from the bluff edge and approximately 123 feet from the drainage swale, it will be safe from erosion and will not require any devices to protect the proposed development for a 75-year design life of the structure.

Although a comprehensive geotechnical evaluation is a necessary and useful tool that the Commission relies on to determine if proposed development is even appropriate on any given bluff top site, the Commission finds that a geotechnical evaluation alone is not a guarantee that a development will be safe from bluff retreat. 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 a 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 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.

The Commission notes that the examples above are not intended to be absolute indicators of bluff erosion on the subject parcel, as coastal geology can vary significantly from location to location. However, these examples do illustrate that site specific geotechnical evaluations cannot always accurately account for the spatial and temporal variability associated with coastal processes and therefore cannot always absolutely predict bluff erosion rates. Collectively, these

examples have helped the Commission form its opinion on the vagaries of geotechnical evaluations with regard to predicting bluff erosion rates.

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 will be subject to geologic hazard and may someday require a bluff or shoreline protective device, inconsistent with Zoning Code Section 20.500.010. Based upon the geologic report, the Commission finds that the risks of geologic hazard are minimized if the additions to the residence are set back approximately 96 feet from the bluff edge as proposed. However, given that the risk cannot be eliminated and the geologic report does not assure that shoreline protection will never be needed to protect the residence, the Commission finds that the proposed development is consistent with the certified LCP only if it is conditioned to provide that shoreline protection will not be constructed. Thus, 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, the fact that the approved development and its maintenance may cause future problems that were not anticipated, and because new development shall not engender the need for shoreline protective devices, it is necessary to attach Special Condition No. 4 requiring a deed restriction prohibiting the construction of seawalls or other shoreline protective devices to protect the additions that have been authorized by Permit Amendment No. 1-92-200-A1.

The Commission finds that Special Condition No. 4 is 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 protective device could be constructed to protect the approved development.

Furthermore, Mendocino County LUP Policy 3.4-9 requires that any development landward of the blufftop setback 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. Surface runoff from the site drains toward the bluff edge, but there is approximately 95 feet of vegetated area that allows for runoff to percolate before draining directly down the bluff face. Therefore, site drainage from the residence and the proposed addition does not pose a significant impact to the stability of the bluff. However, the Commission finds that allowing the pool to drain at the site and potentially over the bluff edge could cause or contribute to erosion of the bluff face. Although draining the pool and spa is likely to occur infrequently, the large volume of water released at once may have an adverse impact on the stability of the bluff face. Therefore, the Commission attaches Special Condition No. 2 that requires the pool to be pumped and drained off-site to ensure that excess water does not flow over the bluff edge and contribute to erosion and geologic instability.

The Commission thus finds that the proposed development with the proposed amendment, as conditioned, is consistent with the policies of the Mendocino County LCP regarding geologic

hazards, including LUP Policies 3.4-7, 3.4-9, 3.4-12, and Zoning Code Sections 20.500.010 and 20.500.020, as the amended development will not result in the creation of any geologic hazards, and will not create nor contribute significantly to erosion or geologic instability of the coastal bluff.

3. Visual Resources

Section 30251 of the Coastal Act has been specifically incorporated into LUP Policy 3.5-1 of the Mendocino LCP and states in 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.

LUP Policy 3.5-3 states in applicable part:

The visual resource areas listed below are those which have been identified on the land use maps and shall be designated as "highly scenic areas," within which new development shall be subordinate to the character of its' setting. Any new development permitted in these areas shall provide for protection of ocean and coastal views from public areas including highways, roads, coastal trails, vista points, beaches, parks, coastal streams, and waters used for recreational purposes.

Portions of the coastal zone within the Highly Scenic Area west of Highway 1 between the Ten Mile River estuary south to the Navarro River as mapped with noted exceptions and inclusions of certain areas east of Highway 1.

In addition to other visual policy requirements, new development west of Highway One in designated 'highly scenic areas' is limited to one-story (above natural grade) unless an increase in height would not affect public views to the ocean or be out of character with surrounding structures. ...New development should be subordinate to the natural setting and minimize reflective surfaces. ...

Zoning Code Section 20.504.015(C)(1) states that:

Any development permitted in highly scenic areas shall provide for the protection of coastal views from public areas including highways, roads, coastal trails, vista points, beaches, parks, coastal streams, and waters used for recreational purposes.

Zoning Code Section 20.504.015(C)(2) states that:

In highly scenic areas west of Highway 1 as identified on the Coastal Element land use plan maps, new development shall be limited to eighteen (18) feet above natural grade, unless an increase in height would not affect public views to the ocean or be out of character with surrounding structures.

Zoning Code Section 20.504.015(C)(3) states that:

New development shall be subordinate to the natural setting and minimize reflective surfaces. In highly scenic areas, building materials including siding and roof materials shall be selected to blend in hue and brightness with their surroundings.

Policy 3.5-1 of the County's LUP provides for the protection of the scenic and visual qualities of the coast, requiring permitted development to be sited and designed to protect views to and along the ocean and to be visually compatible with the character of surrounding areas. Policy 3.5-3 states that new development west of Highway One in designated "highly scenic areas" should be subordinate to the natural setting. The County's Zoning Ordinance reiterates these policies. Specifically, Coastal Zoning Ordinance Section 20.504.015(C)(1) requires that new development in highly scenic areas protect coastal views from public areas including roads and trails. Section 20.504.015(C)(2) of the Zoning Code requires an 18-foot height limit for parcels located west of Highway One in designated highly scenic areas, unless an increase in height would not affect public views to the ocean or be out of character with surrounding structures. Coastal Zoning Ordinance Section 20.504.015(C)(3) requires that new development be subordinate to the natural setting and minimize reflective surfaces and requires that in highly scenic areas, building materials including siding and roof materials shall be selected to blend in hue and brightness with their surroundings.

The subject site is a blufftop parcel located west of Highway One and Ocean Drive in an area designated as "Highly Scenic" in the Mendocino County LUP. As noted previously, building envelopes were delineated at the time of the subdivision that created the subject parcel, in part, to ensure maximum preservation of open space and to protect the views from Ocean Drive, the public road nearest the sea, as well as from areas of historic public use. The site is currently developed with a single-family residence approved under Coastal Development Permit No. 1-92-200 (Eaton). The original permit approved the development of a 4,049-square-foot, 20-foot-high residence with an attached garage, driveway, septic system, and water line to an existing well. The proposed project is an 840-square-foot sunroom addition to enclose a proposed pool and spa on the southwest side of the existing residence.

The existing residence is not visible from Ocean Drive, or from Highway One due to the distance between the designated building envelope and the nearest public roads (approximately 1,800 feet) and because of the dense intervening vegetation. Thus, the proposed addition would not be visible from any public roads. At the time of subdivision, the Commission required the recordation of an offer to dedicate an easement for vertical public access and passive recreational use to the blufftop and beach to offset the burden the proposed subdivision and the residential development that it would facilitate would have on public access. The public access easement

has not yet been accepted by a public agency or private association, but acceptance is being actively pursued. The public access easement is located approximately 300 feet north of the subject site at its closest point.

The existing residence is a white color and is visible to the south from the designated public access easement. However, the proposed addition would not be any more visible from the public access easement than the existing residence due to its siting and design. Only a small portion of the addition may be visible when viewed at an angle from the westernmost point of the access location. The existing residence was approved at 20 feet in height, as it was determined that the increase from 18-feet to 20-feet would not affect public views to the ocean or be out of character with surrounding structures as required by Section 20.504.015(C)(2) of the Coastal Zoning Ordinance. The proposed sunroom addition is 12-feet-high and therefore, would not extend above the height of the existing residence and is consistent with Section 20.504.015(C)(2) of the Coastal Zoning Ordinance. The addition would be sited on the southwest side of the residence and because of its proposed lower elevation, would be only minimally visible from the westernmost point of the access easement located to the north. Furthermore, the proposed low roofline is designed to be consistent with that of the existing residence and would be compatible with the existing development.

The proposed project plans show the walls of the sunroom addition being constructed largely of glass windows, rather than painted surfaces. The proposed addition therefore, does not raise an issue with the hue and brightness requirement of Coastal Zoning Ordinance Section 20.504.015(C)(3). However, the extensive use of glass building materials could result in an adverse visual impact as viewed from the ocean or from the western end of the public access easement if the building materials were reflective in nature. Therefore, the Commission attaches Special Condition No. 1 to ensure that non-reflective building materials be used in the construction of the proposed addition to minimize glare. As conditioned, the project is consistent with LUP Policy 3.5-4 and 20.504.015(C)(3) requiring building materials to be of non-reflective surfaces and the proposed project would not result in a significant adverse impact to public views as required by LUP Policy 3.5-3 and Zoning Code Section 20.504.015(C)(1).

Therefore, the Commission finds that as conditioned, the proposed development with the proposed amendment is consistent with Policies 3.5-1 and 3.5-3 of the LUP and with Section 20.504.015(C) of the Zoning Code, as the amended development will be (1) within applicable height limits for the designated highly scenic area, (2) be sited and designed to protect coastal views from a public area, (3) be visually compatible with the character of surrounding areas, and (4) be subordinate to the character of its setting.

4. Locating New Development

Policy 3.9-1 of the Mendocino County LUP states that new development shall be located in or in close proximity to existing areas able to accommodate it, and shall be regulated to prevent any significant adverse effects, either individually or cumulatively, on coastal resources. Policy 3.8-1 of the LUP requires consideration of Highway One capacity and availability of water and

sewage disposal when considering applications for coastal development permits. The intent of the policy is to channel development toward more urbanized areas where services are provided and potential impacts to resources are minimized.

The subject site is designated in the Mendocino County LUP and Coastal Zoning Code as Rural Residential-5, Planned Development. The proposed project is an addition to an existing single-family residence located on an approximately 11-acre parcel in an area developed with single family residences. Therefore, the proposed addition to the single-family residence is consistent with the LUP and zoning designation of the site.

The proposed addition to the residence would not result in an increase in traffic demand on Highway One, as the addition would not result in a change in intensity of use at the site or surrounding area. Furthermore, as discussed in the Visual Resources findings above, the project has been conditioned to be consistent with visual resource policies of the Mendocino LCP.

The residence is served by an existing well and septic system. According to the LCP Consistency Review prepared by Mendocino County for the proposed project, the subject parcel is located within a Marginal Water Resources Zone (MWR) as identified in the County's Coastal Groundwater Study. The applicant provided a report prepared by a certified professional soil scientist that included the results from a Sustained Yield Test performed to determine whether the production capacity of the existing well is adequate to support the residence and the proposed pool and spa. The report states:

Based on the results of this test, it is estimated that this well produces a minimum of 12.8 gpm, at this point in time. At this production rate, the well would produce approximately 18,432 gallons of water per day. County water use estimates assign a flow of 450 gallons per day for a three bedroom residence for in-house water use. The production of the existing well will adequately serve the existing uses of the residence in addition to the proposed pool and spa.

The report concludes that the well has sufficient capacity to support the proposed swimming pool and spa and the Mendocino County Department of Environmental Health has concurred with this conclusion. The Mendocino County Department of Environmental Health further recommended that discharge from the pool not be directed to the existing septic system. The chemicals used to treat the pool and spa could damage the system and cause it to malfunction, and the volume of water discharged from the pool could overwhelm the system. Therefore, to prevent damage to the existing septic system, the Commission attaches Special Condition No. 2 which requires the pool and spa to be drained by a pump truck and the water to be discharged off-site.

Therefore, the Commission finds that, as conditioned, the proposed development with the proposed amendment is consistent with LUP Policies 3.8-1 and 3.9-1 to the extent that the parcel is able to accommodate the development and adequate services are available and that the project will not contribute to adverse cumulative impacts on highway capacity, groundwater resources, and scenic values.

5. Sedimentation and Water Quality

Section 20.492.020 of the Mendocino Coastal Zoning Code incorporates sedimentation standards and states in part:

- (A) *Sediment basins (e.g., debris basins, desilting basins, or silt traps) shall be installed in conjunction with initial grading operations and maintained through the development/construction process to remove sediment from runoff wastes that may drain from land undergoing development to environmentally sensitive areas.*
- (B) *To prevent sedimentation of off-site areas, vegetation shall be maintained to the maximum extent possible on the development site. Where necessarily removed during construction, native vegetation shall be replanted to help control sedimentation.*
- (C) *Temporary mechanical means of controlling sedimentation, such as hay baling or temporary berms around the site, may be used as part of an overall grading plan, subject to the approval of the Coastal Permit Administrator.*
- (D) *Design of sedimentation control devices shall be coordinated with runoff control structure to provide the most protection.*

Section 20.492.020 of the Mendocino County Coastal Zoning Code sets forth sedimentation standards for development involving grading to minimize sedimentation of off-site areas. Specifically, Section 20.492.020 requires that sedimentation be minimized by use of temporary mechanical means and by maintaining the maximum extent of vegetation possible on the site and replanting when necessary.

Site drainage is directed toward the bluff edge and toward the drainage swale located to the south of the existing residence and the proposed addition. The existing single-family residence and the proposed addition are located over 90 feet from the bluff edge and much of the runoff from the site is filtered by the extensive pervious grassy area between the development and the bluff edge. The site is relatively flat and the proposed project does not involve a significant amount of grading, but does involve some excavation for construction of the proposed pool and spa. The proposed project does not involve major vegetation removal, but would result in the disturbance of a portion of the vegetated area surrounding the area to be excavated. The required excavation results in the potential for sediment to be entrained in surface runoff and potentially be deposited off-site, particularly during the rainy season (October 15 – April 30). Sediments entrained in runoff can result in adverse water quality impacts such as increased turbidity and can result in potential adverse impacts to off-site environmentally sensitive habitat areas.

To control sedimentation and minimize the potential for large quantities of sediment to leave the site, the Commission attaches Special Condition No. 3 which requires silt fencing to be installed around the immediate perimeter of the construction area prior to the commencement of any

ground-disturbing activities and that all on-site debris stockpiles be covered and contained at all times. Special Condition No. 3 further requires that vegetation at the site be maintained to the maximum extent possible and that any disturbed areas be replanted following project completion.

Therefore, the Commission finds that as conditioned, the proposed development with the proposed amendment is consistent with Section 20.492.020 as sedimentation will be controlled and minimized by (1) installing silt fencing prior to ground-disturbing construction activities, (2) covering and containing debris stockpiles at all times, and (3) maintaining on-site vegetation to the maximum extent possible and replanting any disturbed areas following project completion.

6. Environmentally Sensitive Habitat Areas

Policy 3.1-7 of the Mendocino County LUP states that a buffer area shall be established adjacent to all environmentally sensitive habitat areas in order to protect them from significant degradation from future development. Policy 3.1-10 of the LUP states that areas where riparian vegetation exists, such as riparian corridors, are environmentally sensitive habitat areas and development within such areas shall be limited to those uses which are dependent on the riparian resources. These policies are reiterated in the County's Zoning Code.

The subject parcel was created by a five-lot subdivision of a 56-acre parcel that was approved by the Commission in 1989 (CDP #1-89-28, E.F.S. Associates). The 56-acre parcel was found to contain a number of environmentally sensitive habitat areas, including a creek and wetland area with associated riparian habitat. At the time of subdivision, a number of conditions were imposed on the coastal permit to protect this sensitive habitat, including requiring that an open space deed restriction be recorded that created a riparian buffer area. In addition, building envelopes were sited on each of the five lots and were located away from all sensitive habitats.

The existing residence was approved under Coastal Development Permit No. 1-92-200 and included construction of a residence and septic system within the building envelope designated by the subdivision approval under CDP #1-89-28. The proposed project includes construction of an 840-square-foot sunroom addition to the southwest side of the existing residence. The proposed addition would not extend outside of the designated building envelope and thus, would not encroach into the environmentally sensitive habitat areas on the site. Therefore, the development with the proposed amendment is consistent with Mendocino County LUP Policies 3.1-7 and 3.1-10, and with the County's Zoning Code, as the development with the proposed amendment would have no adverse impacts on sensitive habitat.

7. Public Access

Section 30210 of the Coastal Act requires that maximum public access shall be provided consistent with public safety needs and the need to protect natural resource areas from overuse. Section 30212 of the Coastal Act requires that access from the nearest public roadway to the shoreline be provided in new development projects except where it is inconsistent with public

safety, military security, or protection of fragile coastal resources, or adequate access exists nearby. Section 30211 requires that development not interfere with the public's right to access gained by use or legislative authorization. Section 30214 of the Coastal Act provides that the public access policies of the Coastal Act shall be implemented in a manner that takes into account the capacity of the site and the fragility of natural resources in the area. In applying Sections 30210, 30211, 30212, and 30214, the Commission is also limited by the need to show that any denial of a permit application based on these sections, or any decision to grant a permit subject to special conditions requiring public access, is necessary to avoid or offset a project's adverse impact on existing or potential access.

The subject parcel is located west of Highway One and sits atop a coastal bluff. At the time of subdivision, the Commission required the recordation of an offer to dedicate to a public agency or private association an easement for vertical public access and passive recreational use to the blufftop and beach to offset the burden the proposed subdivision and the residential development that it would facilitate would have on public access. The access dedication has not yet been accepted, but is being actively pursued. Although the Commission found evidence of possible public prescriptive rights on the property when it approved the subdivision, none of the areas where it was determined that the prescriptive rights may exist are found within the building site for the proposed development. Since public access has already been provided for in the vicinity of the subject property in anticipation of the impacts that the currently proposed house and other future houses in the subdivision will have on public access, and since the proposed project will not interfere with any possible public prescriptive rights, the Commission finds that the proposed project is consistent with the coastal access policies of the Coastal Act and the County's LCP.

Therefore, the Commission finds that the proposed development with the proposed amendment does not have any adverse effect on public access, and that the project as proposed without new public access is consistent with the requirements of Coastal Act Sections 30210, 30211, and 30212 as there already exists a recorded offer to dedicate a public access easement north of the subject parcel.

8. Alleged Violation

As noted above, in the Geologic Hazards section, during the course of processing this application, staff has been informed that some 6 to 12-inch-diameter rock was placed in recent years along the end of a drainage swale and partially along the bluff face near the southwest end of the subject parcel without benefit of a coastal development permit. Authorization for the rock slope protection is not included as part of this permit action. Staff will work with the applicant and the County to resolve this violation.

To ensure that this recommendation is not used as a basis for the applicant to seek retention of the rock as a necessary feature to protect the proposed addition, the Commission attaches Special Condition No. 4. This condition requires recordation of a deed restriction to ensure that no protective devices, including but not limited to the rock placed in the drainage swale and along the bluff face without benefit of a coastal development permit, are placed, retained, or modified for

the purpose of protecting the development approved pursuant to Coastal Development Permit No. 1-92-200-A1 from the threat of damage or destruction from waves, erosion, storm conditions, bluff retreat, landslides, or other natural hazards in the future. This requirement is 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.

Consideration of this application by the Commission has been based solely upon the policies of the Mendocino County LCP and the public access policies of the Coastal Act. Review of this permit does not constitute a waiver of any legal action with regard to any alleged violation nor does it constitute an admission as to the legality of any development undertaken on the subject site without a coastal permit.

9. California Environmental Quality Act (CEQA)

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

The Commission incorporates its findings on conformity with LCP policies and the public access and recreation policies of the Coastal Act at this point as if set forth in full. These findings address and respond to all public comments regarding potential significant adverse environmental effects of the proposed project with the proposed amendment. As discussed herein, the proposed project with the proposed amendment has been conditioned to be found consistent with the certified LCP and the access and recreation policies of the Coastal Act. Mitigation measures which will minimize all adverse environmental impacts have been made requirements of project approval. 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 with the proposed amendment can be found to be consistent with the requirements of the Coastal Act to conform to CEQA.

Exhibits:

1. Regional Location Map
2. Site Location
3. Site Plan
4. Elevations
5. Geotechnical Report (November 3, 2000)
6. Addendum to Geotechnical Report (July 20, 2001)

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. **Interpretation.** Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.
4. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
5. **Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

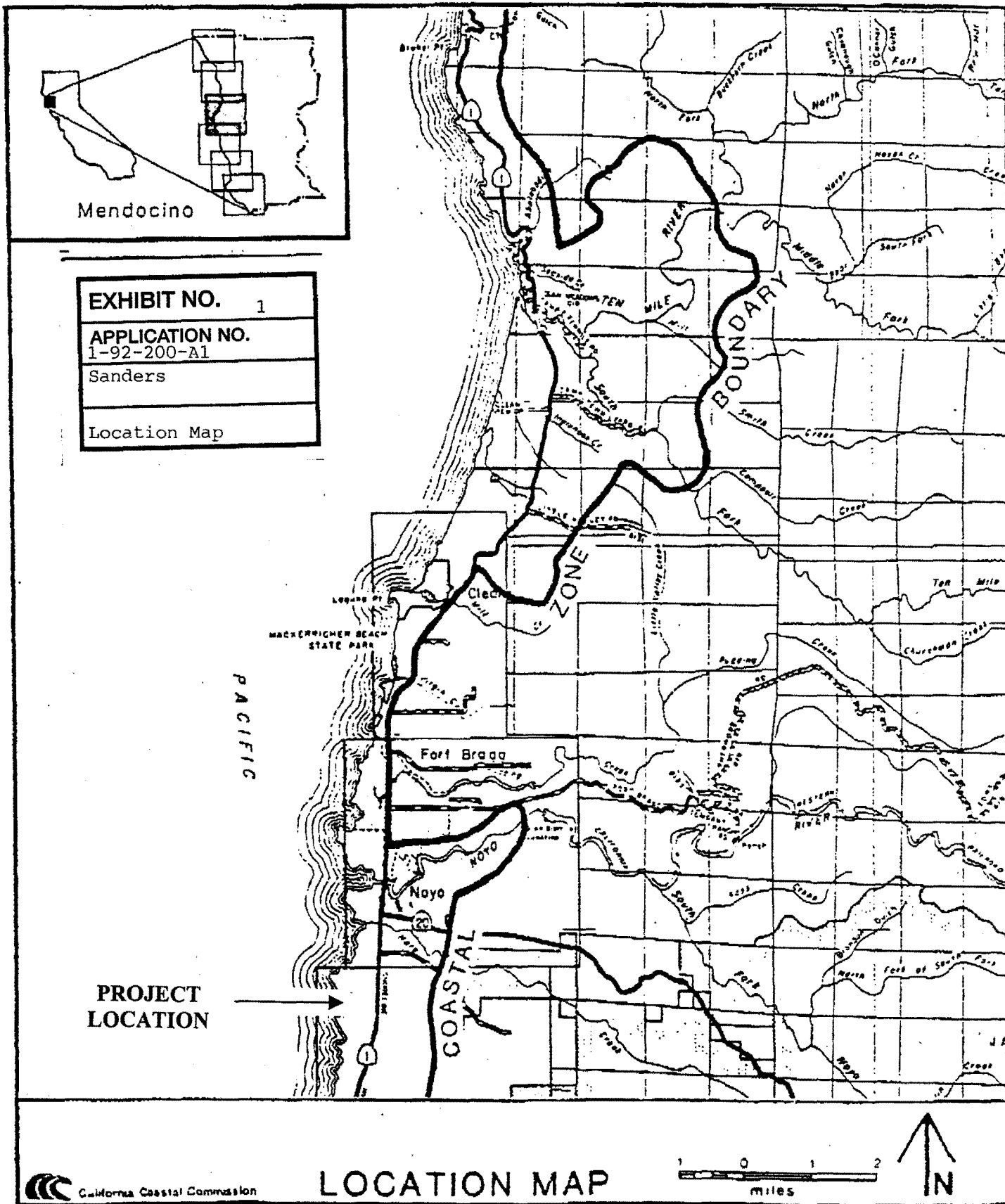


EXHIBIT NO. 1

APPLICATION NO. 1-92-200-A1

Sanders

Location Map

PROJECT LOCATION

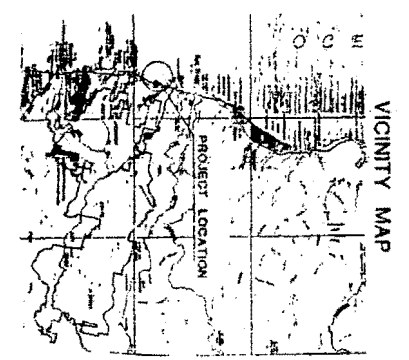
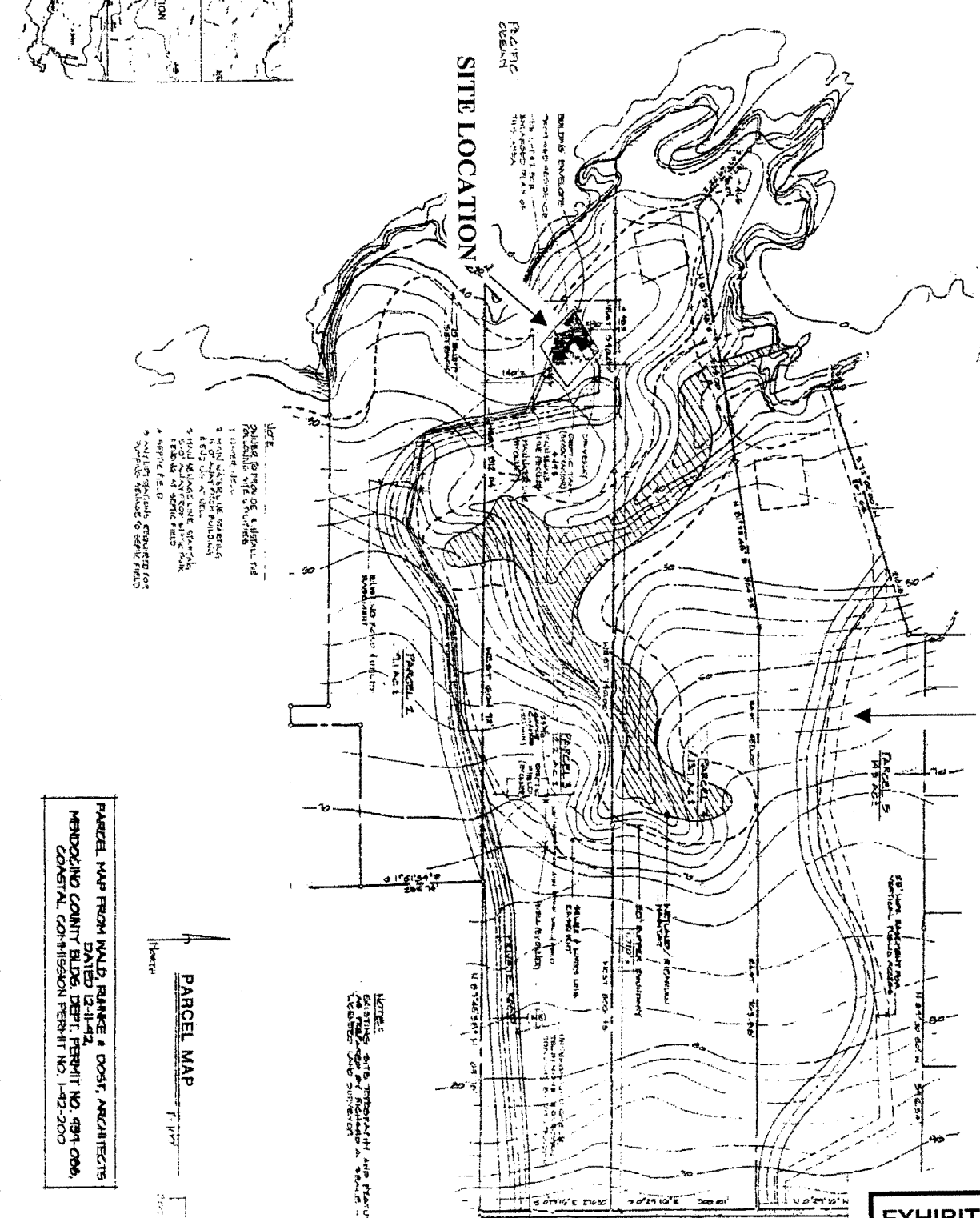
LOCATION MAP



California Coastal Commission

County of Mendocino

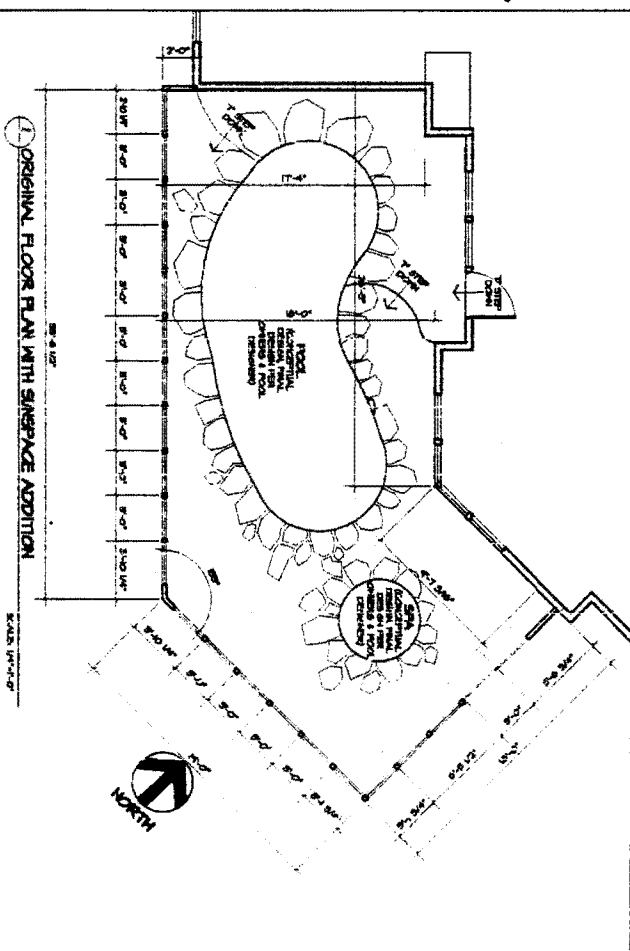
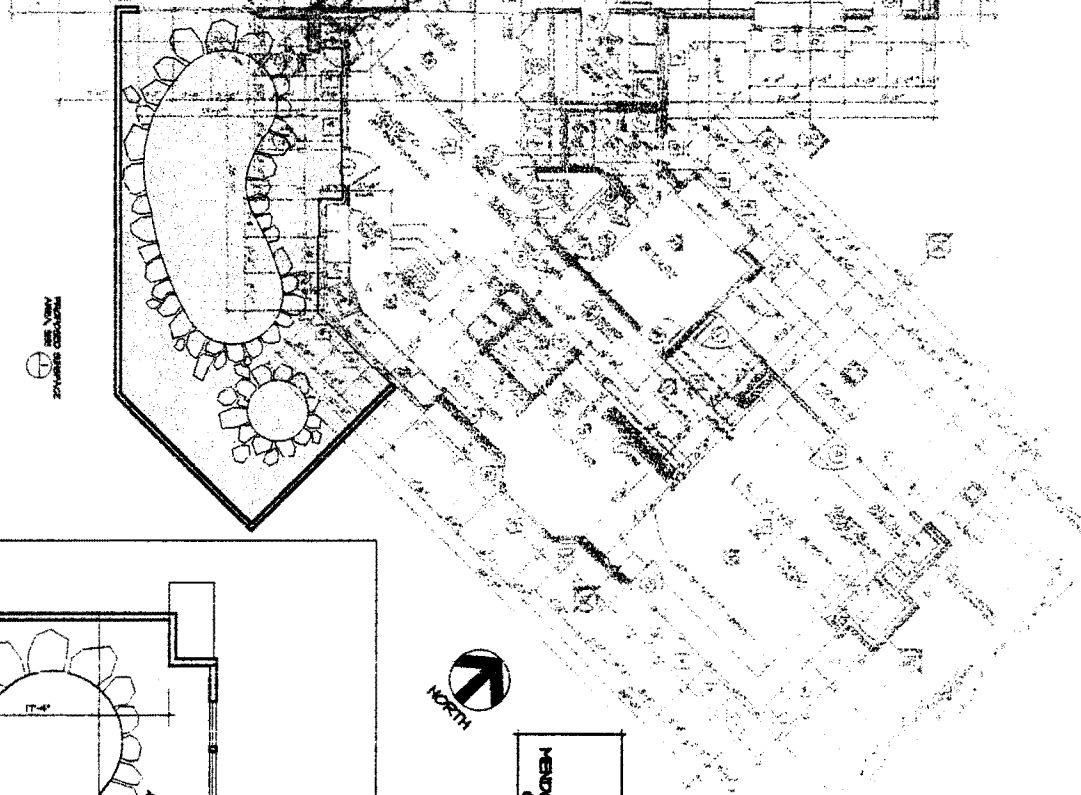
25' wide easement for vertical public access



PARCEL MAP FROM WALD BLANK & DOSTI, ARCHITECTS
 DATED 12/11/12
 MENDOCINO COUNTY BLDG DEPT. PERMIT NO. 0914-086
 CONSTITUTIONAL COMMISSION PERMIT NO. 1-92-200

EXHIBIT NO. 2
APPLICATION NO. 1-92-200-A1
Sanders
Site Location

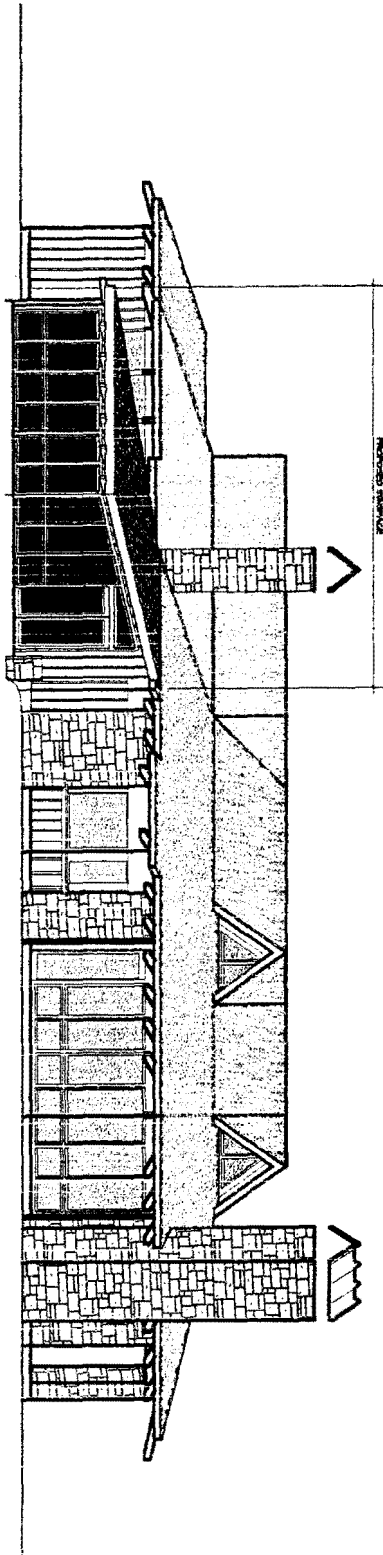
ORIGINAL FLOOR PLAN WITH SUNSPACE ADDITION
 SCALE: 3/8" = 1'-0"



ORIGINAL FLOOR PLAN
 (NOT TO SCALE)
 BY WILD, RINNE & DODD, ARCHITECTS
 DATED 12-11-92
 HENDON COUNTY BLDG. DEPT. PERMIT NO. 494-096,
 COSTAL COMMISSION PERMIT NO. 143-200

EXHIBIT NO. 3
 APPLICATION NO.
 1-92-200-A1
 Sanders
 Site Plan

PROPOSED SOUTHEAST EXTERIOR ELEVATION



ORIGINAL SOUTHEAST EXTERIOR ELEVATION

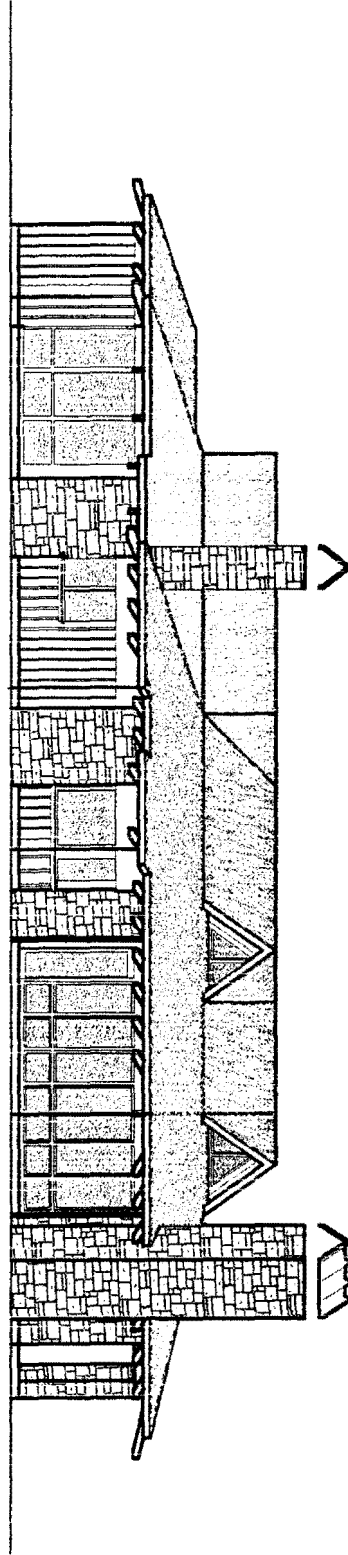


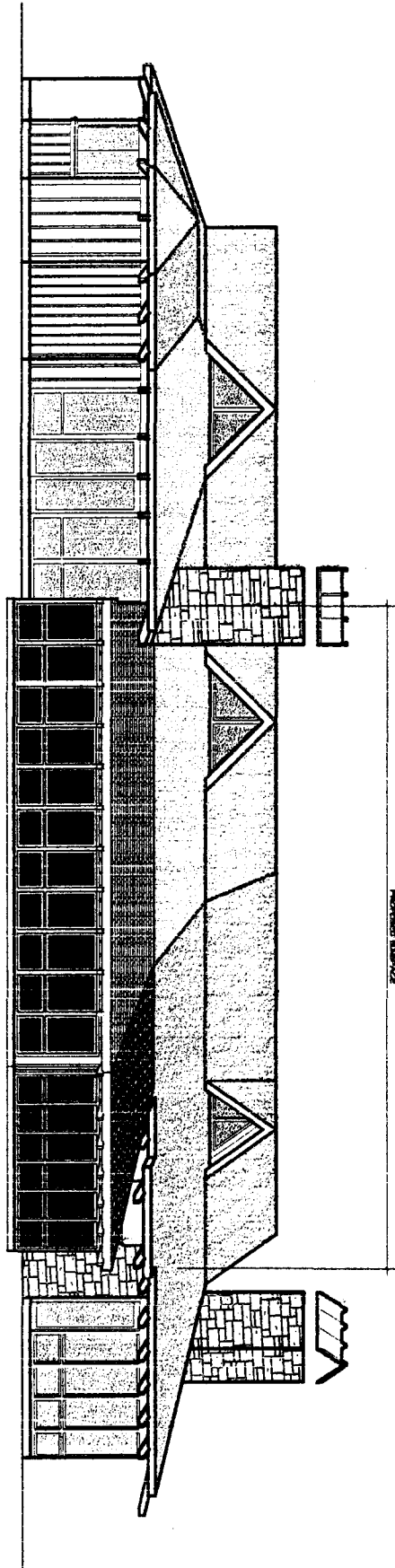
EXHIBIT NO. 4

APPLICATION NO.
1-92-200-A1

Sanders

Elevations (pg.1of2)

PROPOSED SOUTHWEST EXTERIOR ELEVATION



ORIGINAL SOUTHWEST EXTERIOR ELEVATION

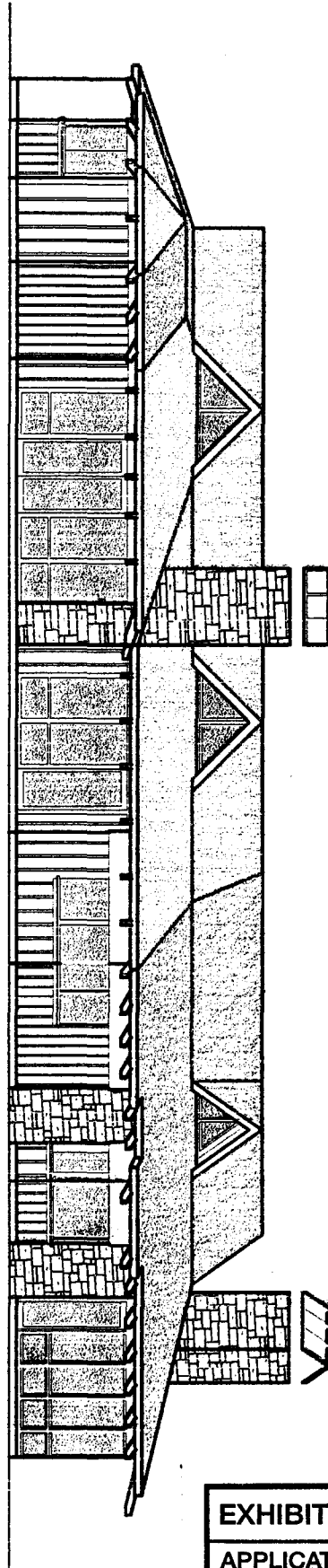


EXHIBIT NO. 4

APPLICATION NO.
1-92-200-A1

Elevations

(pg. 2 of 2)



RECEIVED
MAR 19 2001

November 3, 2000

CALIFORNIA
COASTAL COMMISSION

EXHIBIT NO. 5
APPLICATION NO. 1-92-200-A1
Sanders Geotechnical Report
(pg. 1 of 8)

Mr. Carl Sanders
1131 N. Main Street
Fort Bragg, CA 95437

Subject: Bluff Hazard Assessment and Geotechnical Evaluation, 17270 Ocean Drive,
Fort Bragg, California

Dear Mr Sanders:

This letter presents our Bluff Hazard Assessment and Geotechnical Evaluation for the Pool House addition at 17270 Ocean Drive, Fort Bragg, California. The scope of work included an analysis of historic aerial photographs, a map, literature, report and internet site review and a site reconnaissance to observe conditions of the property and the coastal bluff. The scope was designed to satisfy requirements of Section 20.500.020 of the Mendocino County Coastal Zoning Code.

SITE RECONNAISSANCE

A site reconnaissance on the subject property was performed on September 23, 2000, by our project environmental engineer. The reconnaissance included observations of the existing residence and vicinity, the drainage and erosional characteristics of the property and an examination of the coastal bluff adjacent to the property. A video tape was made of the site and digital photographs were also taken. Our senior engineering geologist viewed the video tape and digital photographs as part of this analysis and discussed observations of the site with our project engineer. **Figure 1** presents a site plan of the property and vicinity.

The coastal bluff was observed to consist of sandstone bedrock with interbedded shale and siltstone (**Figure 2**). Overlying the bedrock are alluvial soils and, locally, terrace deposits. These soils are dominated by sands and silty sands. The area at the top of the bluff is well vegetated with local grasses and other plants. The bluff slopes are variable in steepness, generally from 25 to 75 degrees. Erosion of the bluff face occurs due to wave cutting of the bedrock at the toe of the bluff and of the mid-bluff during heavy storms, and run-off from the land above the bluff. A small drainage is present to the south of the existing residence and proposed pool house and exhibits the effects of erosion (**Figure 3**). An attempt to stabilize this drainage/erosion feature consists of 6 to 12-inch diameter rock rip-rap which was apparently dumped into the drainage. The rock appears to have reduced the erosion for the short term but may require some improvement to provide long-term erosion protection. The overall coastal bluff in this area is very stable; the stability is governed by the strength, structure and orientation of the bedrock which is present within several feet of the top of the bluff and exposed along the bluff face.

The distance from the residence at the proposed pool house addition to the bluff edge, at the nearest point, was measured to be approximately 96.5 feet (30 m). The distance from the on-site drainage/erosion feature at the edge of the coastal bluff to the proposed pool house was determined to be 127 feet (39 m). **Figure 4** shows the proximity of the residence to the eroding drainage feature.

REGIONAL AND SITE GEOLOGY

The site regional geology has been compiled on the Geologic Map of the Fort Bragg Quadrangle by the State of California Department of Forestry (April 1979) and on the Geology and Geomorphic Features Related to Landsliding, Fort Bragg 7.5-minute Quadrangle, by the California Division of Mines and Geology (CDMG Open-File Report 83-5, 1983). The maps show the site as consisting of the Quaternary age marine terrace deposits with exposures of Tertiary to Cretaceous Franciscan Coastal Belt, the youngest portion of the Franciscan Complex, exposed along the shoreline. The marine terrace deposits consist predominantly of fine sand with some coarse sand and fine gravel interbeds. The Coastal Belt consists of sedimentary rocks, including sandstones, siltstones and shales and meta-volcanic rocks, including greenstone and metamorphosed tuffaceous sandstone. The sandstones and greenstones commonly form resistant bluffs and sea mounts. The regional structural trend of northwest to southeast is very pronounced in these rocks and affects the shape of the coastline in the area.

The San Andreas fault is located off-shore in this region within several miles of the site and is the closest active fault. Other active faults in Mendocino County include the Maacama fault located approximately 22 miles to the east-northeast. Two smaller northwest-southeast trending faults have been mapped in the area cutting the Coastal Belt rocks on the shoreline to the northeast of the site. These are not considered active faults by the State of California Division of Mines and Geology.

AERIAL PHOTOGRAPH ANALYSIS

Stereo pairs of aerial photographs for several different years were examined. The purpose of aerial photographic analysis was to evaluate bluff slope stability and bluff retreat rates. Photographs examined included:

- February 8, 1942. CVN-13B-55, Scale 1:20,000 (1"=1667 feet)
- April 21, 1984. WAC-84C 18-11 & 12, Scale 1:31,680 (1"=2640 feet)
- March 24, 1996. WAC-MENDOCINO-96 9-200 & 201, Scale 1:13740 (1"=1145 feet)

1942 Photograph. Only one aerial photograph was observed for this year. However, the clarity of the photo is excellent and the coastal bluff appears to be little changed from this 1942 photo to the 1996 photographs. In 1942, the residence area is undeveloped grassland. The coastal bluff has the same pattern of erosion observed in later photographs and the primary points of erosion are the same as in later photographs, primarily in the area of the drainage/erosion feature to the southwest of the residence location.

1984 Photographs. These aerial photographs were taken prior to development of the site and vicinity and construction of the residence. The coastal bluff appears to be in the current stable configuration. The small on-site drainage/erosion feature to the southwest of the residence is present in the photograph in its current location. The condition of the erosion feature appears much as it does at the present time.

1996 Photographs. The residence is present in this photograph. The condition of the coastal bluff appears essentially unchanged from the 1984 photos. The overall bluff appears to be very stable with bedrock structure paralleling the coastline. The exposed sandstones appear very stable and resistant to the wave action. The small on-site drainage/erosional feature appears much as it does today with no evidence of significant recent bluff retreat. The overall coastal bluff retreat from the 1942 to the 1996 photographs appears to be less than 5 meters (less than 0.1 m/year). The coastal bluff retreat in the vicinity of the drainage/erosional feature from 1942 to 1996 appears to be approximately 18 meters (0.33 m/year).

COASTAL BLUFF SETBACK CONCLUSIONS

Based on our review of the geological data, our site reconnaissance and detailed aerial photographic analysis, the bluff is moderately stable in its current configuration. Based on our observations we estimate an average bluff retreat rate for the overall bluff of less than 0.2 m/yr and for the drainage/erosional feature of less than 0.5 meters per year. In accordance with the Mendocino County Coastal Zoning code, Section 20.500.020, the minimum setback is calculated from the setback formula: $\text{Setback (meters)} = \text{structure life (75 years)} \times \text{retreat rate (meters/year)}$. Based on this formula the minimum setback for the pool house structure from the Coastal Bluff should be: 75 years times 0.2 m/year = 15 meters. The minimum setback from the drainage/erosional feature should be: 75 years times 0.5 m/year = 37.5 meters. These are conservative estimates. Based on our assessment, the rate of retreat has been less than the cumulative average for the time period observed (54 years) in aerial photographs.

25.7.00

Page 4
Mr. Sanders
November 3, 2000


RECOMMENDATIONS

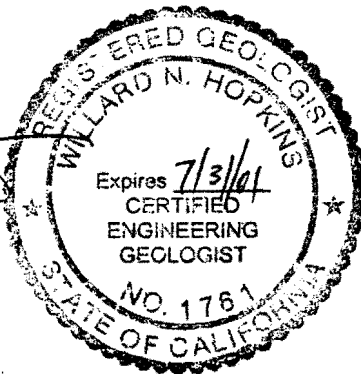
Based on results of our assessment, we recommend that the existing erosional control measures at the drainage/erosional feature be improved. A common type of biotechnical stabilization involves placing soil around existing rock rip-rap, placing erosion control materials and planting the area with native, erosion resistant, plant species. This type of stabilization would further reduce the potential for rapid bluff retreat during major storm or seismic sea wave (a.k.a. tidal wave or tsunami) events which periodically affect the coastal area.


Our overall conclusion is that the Pool House construction can proceed as planned, provided that our recommendations for improvement of the site drainage/erosional feature are followed. The proposed setback is sufficient to provide for a 75-year design life for the structure.

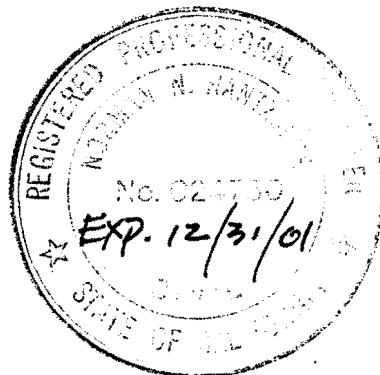
Should you have any questions please call the undersigned at (510) 236-6114, ext. 222.

Sincerely,


Willard N. Hopkins, C.E.G.
Senior Engineering Geologist

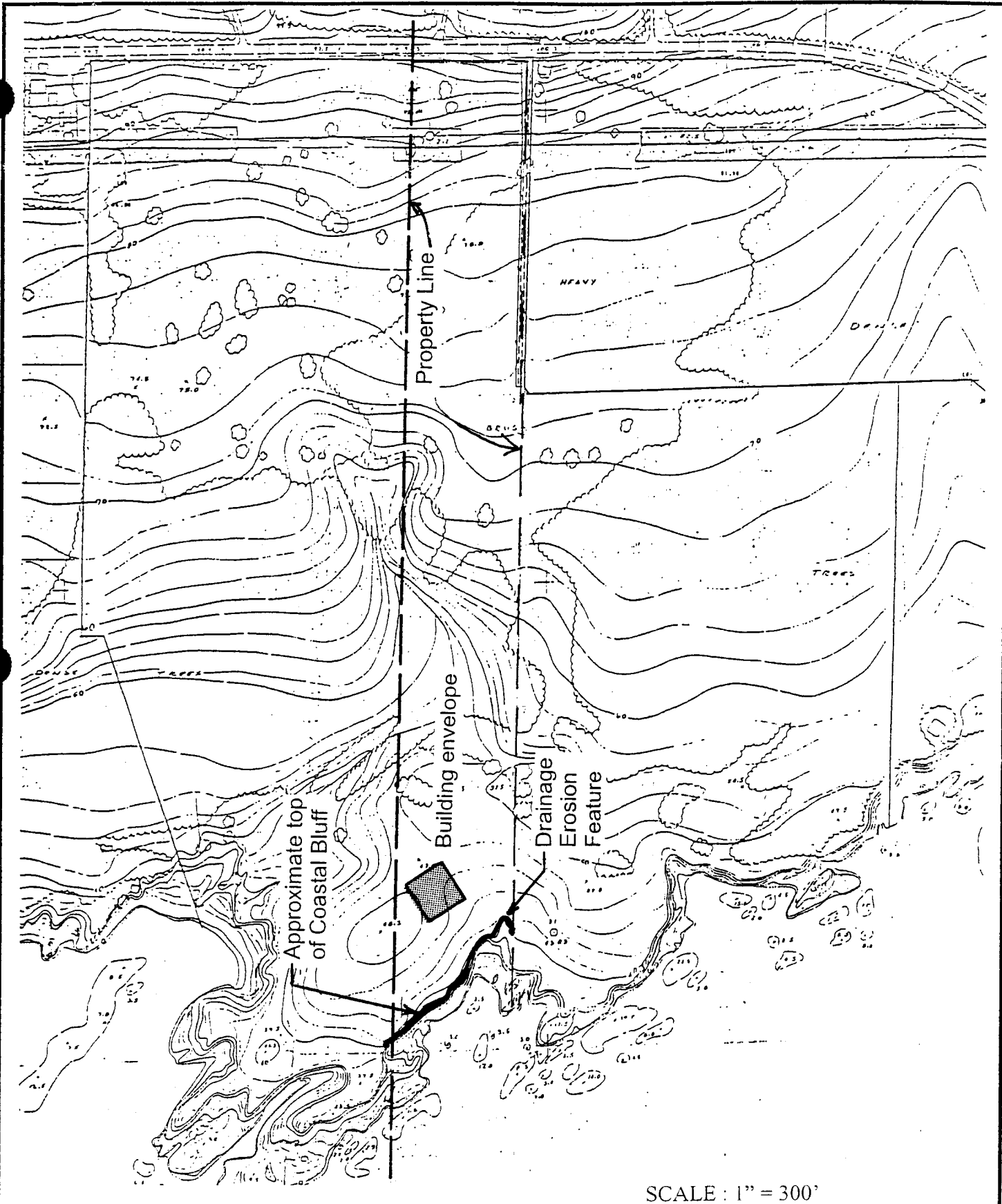



Norman N. Hantzsche, P.E.
Principal/Managing Engineer



NNH/WNH/ljt

Ref.: 20208L3



SCALE : 1" = 300'

Date:	11 / 2 / 2000
Drawn:	L.I.
Appr d:	N.H.
Dwg. No:	FIG1.CDR

QUESTA
 Civil Environmental & Water Resources
 1220 Brickyard Cove Court - Point Richmond, CA 94807
 (415) 266-8111
 FAX (415) 266-3221
 questaplanet.com

SITE PLAN
SANDERS PROPERTY
 FORT BRAGG, CA

FIGURE
1

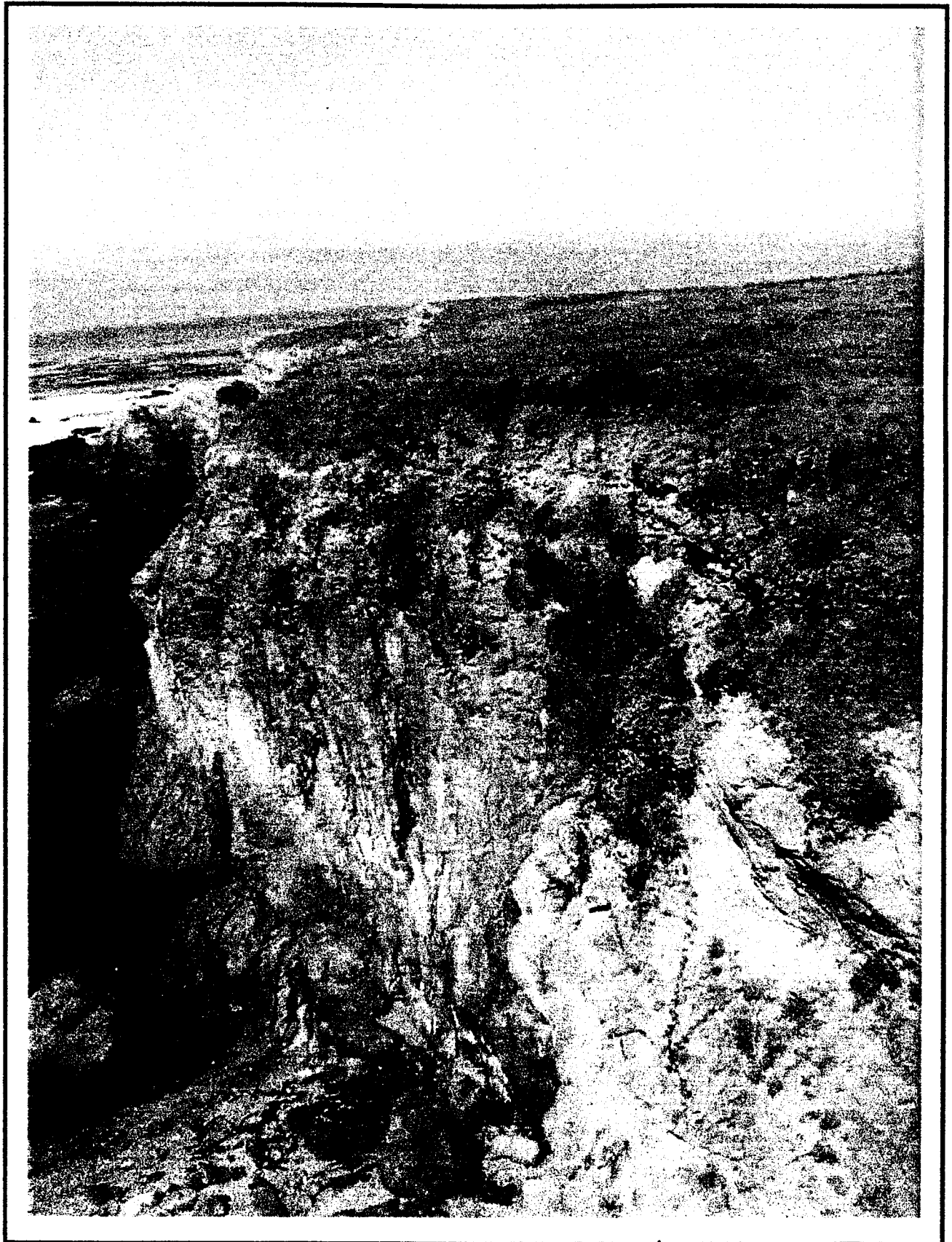


FIGURE 2: Coastal Bluff showing exposed bedrock on the bluff face.

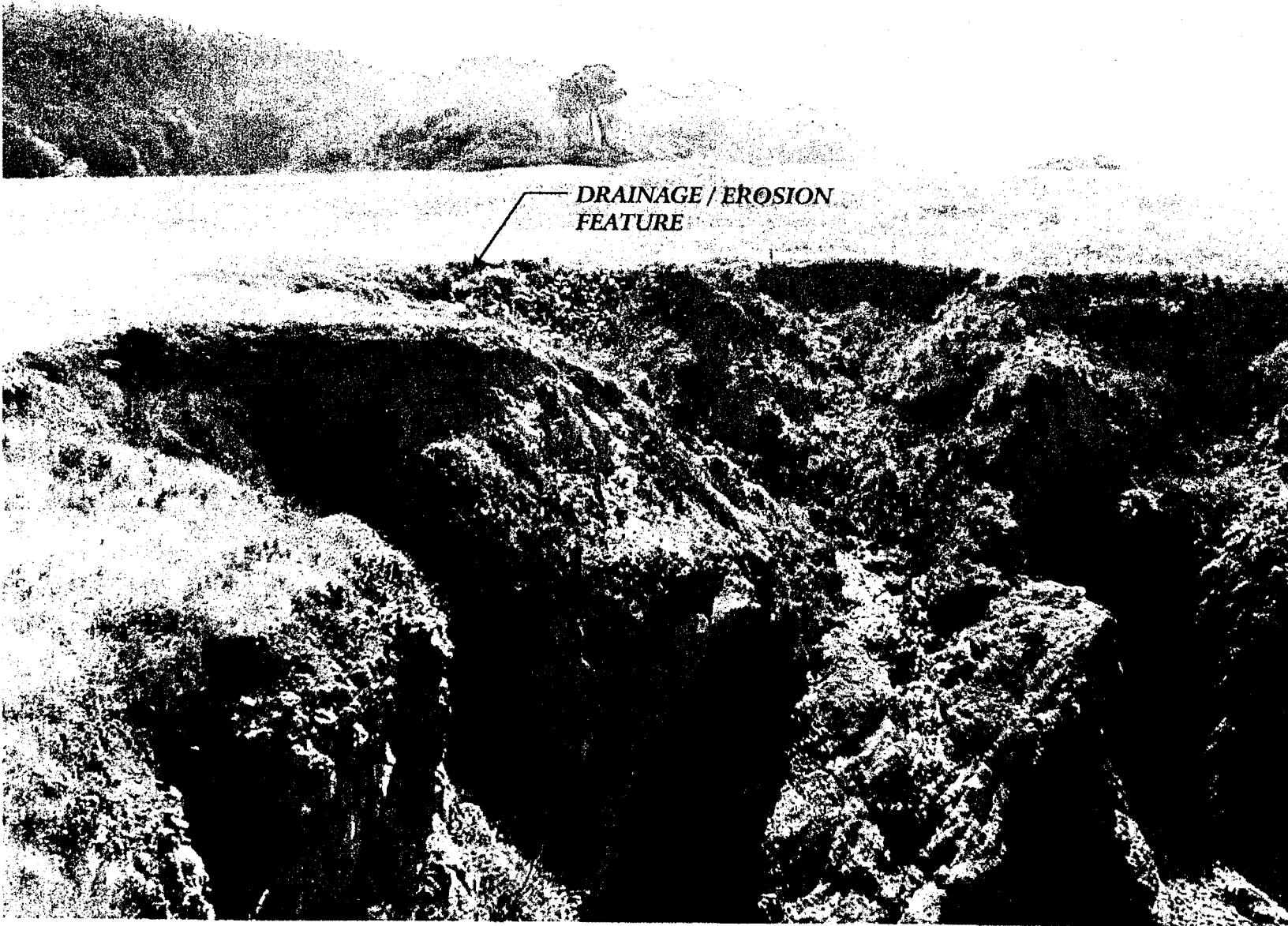
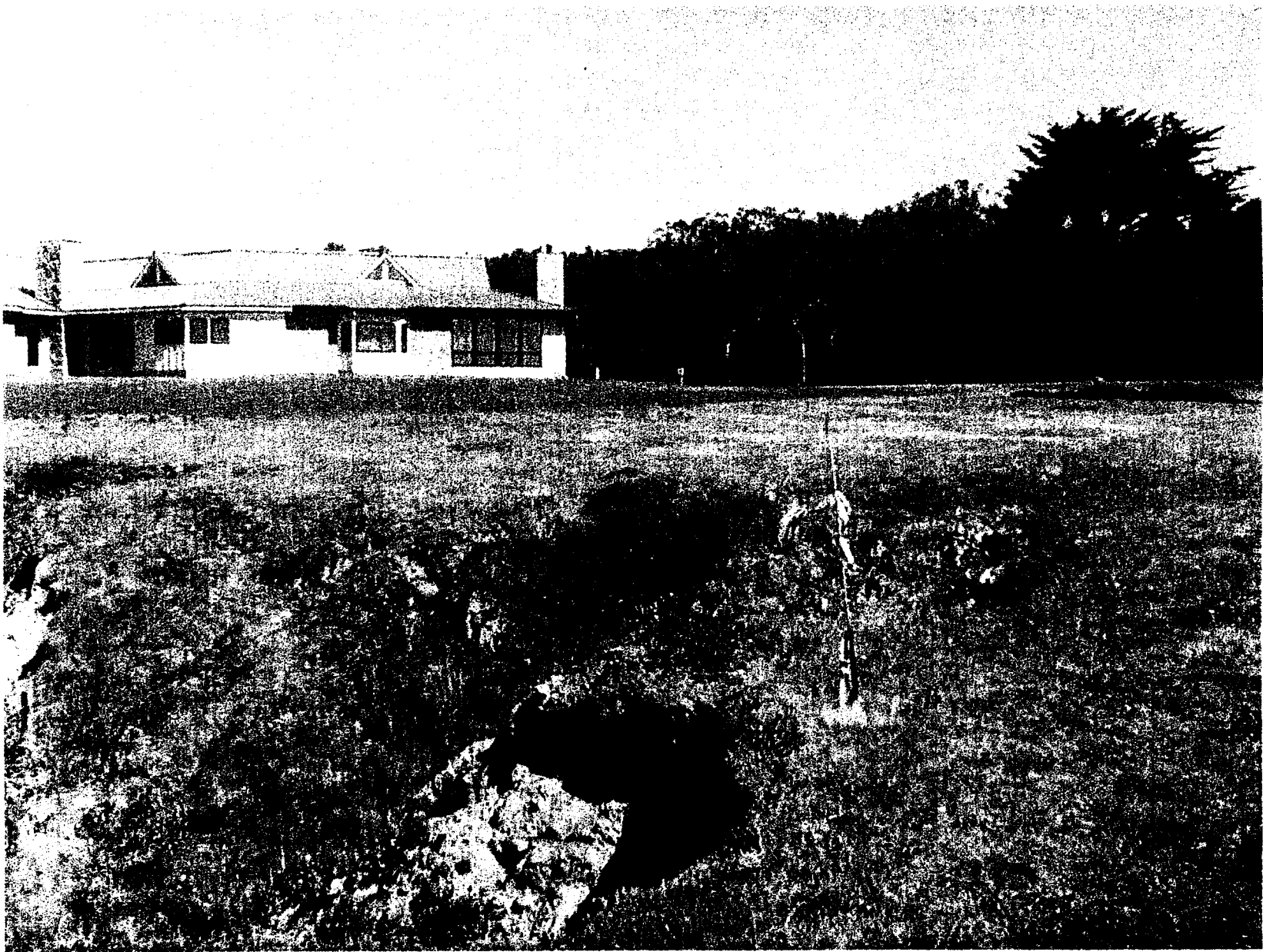


FIGURE 3: Coastal Bluff showing on site drainage and gradually eroding bluff face.

Pg. 7 of 8



pg. 8 of 8.

FIGURE 4: Proximity of residence to gradually eroding Coastal Bluff.

July 20, 2001

RECEIVED
JUL 23 2001

Mr. Bob Merrill
California Coastal Commission
710 E Street, Suite 710
Eureka, CA 95501

CALIFORNIA
COASTAL COMMISSION

Subject: Geotechnical Evaluation Clarification, 17270 Ocean Drive, Fort Bragg, California

Dear Mr. Merrill:

This letter is written in response to your request for clarification concerning our recommendations as presented in our letter to Mr. Carl Sanders dated November 3, 2000 titled *Bluff Hazard Assessment and Geotechnical Evaluation, 17270 Ocean Avenue, Fort Bragg, California.*

Our conclusion in the referenced report was that there is a sufficient setback from the Coastal Bluff to allow construction of the proposed Pool House in accordance with applicable Mendocino County Coastal Policies. It is our opinion that the Pool House may be constructed without stabilizing the existing drainage/erosion feature. However, we also had recommended that the area of the existing drainage/erosion feature at the edge of the coastal bluff (in the area rock rip-rap was placed) be stabilized by biotechnical engineering methods. We understand that the rock rip-rap in the eroding drainage was placed without permit. The recommended work is intended to stabilize the area of the rock rip-rap which is in an unstable configuration. The recommended biotechnical stabilization will not eliminate coastal bluff retreat, but is intended to retard the process and give the coastal bluff a more natural vegetated appearance.

We trust this is the information you require at this time. If we can provide additional information please contact the undersigned.

Sincerely,



Willard N. Hopkins, E.G. #1761
Senior Engineering Geologist



Norman N. Hantzsche, P.E. #24750
Principal/Managing Engineer

xc: Mr. and Mrs. C. Sanders

ref: 20208L5

EXHIBIT NO. 6
APPLICATION NO. 1-92-200-A1
Sanders
Geotechnical Addendum

