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| Filed:                | June 14, 2005  |
| 49 <sup>th</sup> Day: | August 1, 2005 |
| Staff:                | Ruby Pap       |
| Staff Report:         | June 30, 2005  |
| Hearing Date:         | July 14, 2005  |

**STAFF REPORT: APPEAL****SUBSTANTIAL ISSUE**

|                             |  |
|-----------------------------|--|
| <b>APPEAL NO.:</b>          | <b>A-1-MEN-05-029</b>  |
| <b>APPLICANTS:</b>          | <b>Charles and Dale Phelps</b>   |
| <b>LOCAL GOVERNMENT:</b>    | County of Mendocino  |
| <b>DECISION:</b>            | Approval with Conditions   |
| <b>PROJECT LOCATION:</b>    | Approximately 5 miles southeast of Point Arena, on the southwest side of Highway One, approximately ¼ mile southeast of its intersection with Iversen Road, at 30250 South Highway One (APN 142-031-11) (Mendocino County)   |
| <b>PROJECT DESCRIPTION:</b> | (a) The removal of an existing 1,805 – square-foot residence and using portions of it to construct a new 621 – square-foot workshop and a new 707 – square-foot guest cottage and art studio; (b) construction of a new 2,259 – square-foot residence with a 672 – square-foot detached garage and a 625 – square-foot porte cochere in between; and (c) additional improvements including an LPG tank, generator, solar panels, new and relocated underground utility lines, stormwater infiltration pits, a curtain drain, septic tank, leach field, additions to the driveway, a terrace, paths, a utility screen fence, and a dog pen. |

APPELLANT:

1) Eric Beihl

SUBSTANTIVE FILE  
DOCUMENTS:

1) Mendocino County CDP No. 62-04; and  
2) Mendocino County Local Coastal Program

**SUMMARY OF STAFF RECOMMENDATION:**

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 appellant has raised a substantial issue with the local government's action and its consistency with the certified Local Coastal Program (LCP).

The development, as approved by the County, consists of (a) the removal of an existing 1,805 – square-foot residence and using portions of it to construct a new 621 – square-foot workshop and a new 707 – square-foot guest cottage and art studio; (b) construction of a new 2,259 square foot residence with a 672 square foot detached garage and a 625 square foot porte cochere in between; and (c) additional improvements including an LPG tank, generator, solar panels, new and relocated underground utility lines, stormwater infiltration pits, a curtain drain, septic tank, leach field, additions to the driveway, a terrace, paths, a utility screen fence, and a dog pen.

The project site is located approximately 5 miles southeast of Point Arena, on the southwest side of Highway One, approximately ¼ mile southeast of its intersection with Iversen Road, at 30250 South Highway One.

The Appellant poses three separate contentions, including: (1) the geologic setbacks of the approved development from the bluff are not sufficient to protect the development from the hazards associated with coastal bluff erosion, and the approved residence would cause geologic instability on the bluff from the extensive water drainage from the buildings, inconsistent with the geologic hazards policies of the LCP; (2) the approved development did not provide physical public access to the shoreline as a condition of permit approval, inconsistent with public access policies of the LCP and the Coastal Act; and (3) the approved development would be highly visible from Iversen Point Road and it is incompatible with the “established visual scale” of the area, inconsistent with the visual resource policies of the LCP.

Staff recommends that the Commission find that all three contentions are valid grounds for an appeal, and that the contention regarding geologic hazards raises a substantial issue of conformity of the approved development with the certified LCP. LCP policies require that the geologic stability of the site be maintained over the development's expected economic life, which is defined as 75 years, and that mitigation measures must be

implemented to minimize threats to the development from geologic hazards arising from landslides, erosion, and other geologic events. The geotechnical investigation for the approved project does not provide sufficient information to ensure that the site of the approved development will be stable at the end of its 75-year life because a quantitative slope stability analysis was not conducted. Accordingly, the location of the line representing a minimum factor of safety of 1.5 cannot be established, for current conditions, or for the presumed configuration of the bluff after 75 years of coastal erosion. Furthermore, there is good reason to consider that the site will have stability problems because (a) it is located near the tip of a point, which tends to focus wave energy; (b) there is a dormant landslide to the west which can be expected to reactivate as marine erosion erodes its toe; and (c) there are active landslides on the south side demonstrating that the bluff is unstable.

Staff recommends that the Commission find that the second contention regarding the project's conformance with public access policies of the LCP and Coastal Act does not raise a substantial issue, and the local government has a high degree of factual and legal support for its decision because the approved development would not impact any existing public trails or designated access points, both on the property and elsewhere.

Lastly, staff recommends that the Commission find that the third contention regarding the project's conformance with visual resource policies of the LCP does not raise a substantial issue because evergreen trees surrounding the property and largely screen the approved development, the size and configuration of the approved buildings are not imposing, and the new development does not conflict with the surrounding development.

Because the approved development cannot be found to be consistent with the geologic hazards policies of the LCP, staff recommends that the Commission find that the appeal raises a substantial issue of conformance of the project as approved by the County with the certified LCP and the public access policies of the Coastal Act.

**The motion to adopt the staff recommendation of Substantial Issue is found on page no. 5.**

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**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 three hundred feet of the inland extent of any beach, or of the mean high tide line of the sea where there is no beach, or within one hundred feet of any wetland or stream, or within three hundred feet of the top of the seaward face of any coastal bluff, or those located in a sensitive coastal resource area.

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 and, if the development is located between the first public road and the sea, the public access policies set forth in the Coastal Act.

The subject development is appealable to the Commission because the proposed residence is (1) within a sensitive coastal resource area. Section 20.308.110(6) of the Mendocino County Zoning Code and Section 30116 of the Coastal Act define sensitive coastal resource areas as "those identifiable and geographically bounded land and water areas within the coastal zone of vital interest and sensitivity," including, among other categories, "highly scenic areas." The approved development is located within an area designated in the LCP on the certified land use map as a "highly scenic area," and, as such, is appealable to the Commission. The subject development is also appealable to the Commission because the proposed residence is located between the sea and the first public road paralleling the sea, and within three hundred feet of the 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 the appeal raises no substantial issue of conformity of the approved project with the certified LCP. Since the staff is recommending substantial issue, unless three Commissioners object, it is presumed that the appeal raises a substantial issue and the Commission may proceed to its *de novo* review.

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.

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

Unless it is determined that there is no substantial issue, the Commission will proceed to the *de novo* portion of the appeal hearing and review the merits of the proposed project. This *de novo* review may occur at the same or subsequent meeting. If the Commission were to conduct a *de novo* hearing on the appeal, because the proposed development is located between the first public 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.

2. Filing of Appeal

One appeal was filed by Eric Beihl (Exhibit No. 3). The appeal was filed with the Commission in a timely manner on June 14, 2005 within 10 working days of receipt by the Commission of the County's Notice of Final Action (Exhibit No. 4) on June 13, 2005.

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I. MOTION, STAFF RECOMMENDATION AND RESOLUTION

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-05-029 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-05-029 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 one appeal of the County of Mendocino's decision to conditionally approve the development from Eric Beihl. The project as approved by the County involves (a) the removal of an existing 1,805 – square-foot residence and using portions of it to construct a new 621 – square-foot workshop and a new 707 – square-foot guest cottage and art studio; (b) construction of a new 2,259 square foot residence with a 672 square foot detached garage and a 625 square foot porte cochere in between; and (c) additional improvements including an LPG tank, generator, solar panels, new and relocated underground utility lines, stormwater infiltration pits, a curtain drain, septic tank, leach field, additions to the driveway, a terrace, paths, a utility screen fence, and a dog pen.

The approved project is located approximately 5 miles southeast of Point Arena, on the southwest side of Highway One, approximately ¼ mile southeast of its intersection with Iversen Road, at 30250 South Highway One.

The appeal raises three contentions alleging inconsistency of the approved project with the County's certified LCP. The appellants' contentions are summarized below, and the full text of the contentions is included as exhibit no. 5.

#### **1. Geologic Hazards**

The Appellant contends the geologic setbacks of the approved development from the bluff are not sufficient to protect the development from the hazards associated with coastal bluff erosion, stating that the cliff has eroded approximately one foot per year since the early 1960s. Further, it is alleged that the approved residence would cause geologic instability on the bluff, or "alteration of landforms," caused from the extensive water drainage from the approved buildings.

#### **2. Public Access**

The Appellant contends that no physical public access to the shoreline was required as a condition of approval, inconsistent with public access policies of the LCP, alleging that despite the passage of the Coastal Initiative in 1972, physical access to the shoreline is no longer being required on projects.

#### **3. Public Views and Compatibility with the Surrounding Area**

The Appellant further contends that the approved development would be highly visible from Iversen Point Road and that the development is incompatible with the "established visual scale" of the area, alleging that the development and its associated infrastructure would take up nearly 75% of the parcel's land, and that the interior floor area is twice that of other residences in the neighborhood, inconsistent with visual resource policies of the LCP.

**B. LOCAL GOVERNMENT ACTION**

On May 26, 2005, the Mendocino County Coastal Permit Administrator conditionally approved the Coastal Development Permit for the project (CDP 62-04) (exhibit no. 4). The permit approved (a) the removal of an existing 1,805 – square-foot residence and using portions of it to construct a new 621 – square-foot workshop and a new 707 – square-foot guest cottage and art studio; (b) construction of a new 2,259 square foot residence with a 672 square foot detached garage and a 625 square foot porte cochere in between; and (c) additional improvements including an LPG tank, generator, solar panels, new and relocated underground utility lines, stormwater infiltration pits, a curtain drain, septic tank, leach field, additions to the driveway, a terrace, paths, a utility screen fence, and a dog pen.

The approved permit imposed several special conditions pertaining to the appeal's contentions, including requiring that the project comply with all the recommendations of the geotechnical investigation prepared by BACE Geotechnical in June of 2004; that prior to issuance of the CDP, the owners execute and record a deed restriction on the property providing that they understand that the site may be subject to extraordinary geologic hazards, that the owners agree to hold harmless the County against any liability arising out of the design, construction, operation, maintenance, existence or failure of the permitted project, that adverse impacts to the property are the responsibility of the applicant, that the landowners shall not construct bluff or shoreline protective devices to protect the development from geologic hazards, that the landowner shall remove the development when bluff retreat or soil failure reaches a point at which the structure is threatened, and that all development shall run with the land; and that any change in colors or materials shall be subject to review and approval of the Coastal Permit Administrator for the life of the project; and that exterior lighting fixtures be designed to be non-glaring to neighboring parcels.

The decision of the Coastal Permit Administrator was not appealed at the local level to the County Board of Supervisors. The County then issued a Notice of Final Action, which was received by the Commission staff on June 13, 2005 (exhibit no. 5). Section 13573 of the Commission's regulations allows for appeals of local approvals to be made directly to the Commission without first having exhausted all local appeals when, as here, the local jurisdiction charges an appeal fee for the filing and processing of local appeals.

The County's approval of the project was appealed to the Coastal Commission in a timely manner on June 14, 2005, within 10-working days after receipt by the Commission of the Notice of Final Local Action.

**C. PROJECT AND SITE DESCRIPTION**

The approved development is located in the coastal zone on a bluff top lot approximately 5 miles southeast of Point Arena on the southwest side of Highway One, approximately ¼ mile southeast of its intersection with Iversen Road. The site is presently developed with a 1,805 – square-foot single-family residence with an attached carport, driveway, well, pump house, water tank, septic tank, and leach field. As noted above, the approved development includes the construction of a new residence in the general location of the existing residence but approximately five feet landward, and the removal of the existing residence and using portions of it to build accessory buildings landward of the new residence. The newly approved 2,259 – square-foot single story residence consists of one bedroom, and 1 ½ baths. It would be connected to the new 672 – square-foot garage by a 625 – square-foot porte cochere. The master bedroom and den of the existing residence would be used to construct the new guest cottage and art studio (707 square feet and 13'10" high). The living/dining room of the existing house would be used to form the new workshop (15'7" high and 621 square feet). The new residence is designed with three wings, connected by a 14' diameter cupola with a conical roof at the junction of the wings. The roof ridges over the majority of the approved structures have a height above average natural grade of about 16'6", however the ridge over the porte cochere is approximately one foot higher, and the cupola on the new residence extends to a height of 21'5". All structures would have crimped seam copper siding, copper shingle roofing, forest green wood trim, and dark colored window frames and doors. Approved exterior lighting includes ceiling or wall-mounted shielded downcast lighting fixtures.

The subject 2.55 +/- acre bluff top lot is long and narrow in shape, and extends from the ocean at its south end to Highway One at its northeast end (exhibit 2). Due to the shape of the bluff, the parcel has ocean frontage on its western, southern, and southeastern sides. The western facing view overlooks a crescent shaped beach and Iversen Point, including the Iversen Point Subdivision to the west. The subject property and its surrounding neighbors are located in an LCP designated "highly scenic area", and zoned rural residential 2-acre minimum. The property has residential neighbors on its northwest and east sides, each with medium sized homes. The property is characterized by a long open maintained meadow-like lawn in the center of the parcel, surrounded by evergreen trees on all sides, and punctuated by a cluster of evergreen trees adjacent to the existing house on the southwest end of the parcel, and a row of mature and newly planted evergreen trees bordering the highway on the northeast end of the parcel. A drainage ditch runs along the eastern border of the parcel, collecting runoff from the highway and depositing it over the southeastern bluff.

**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.*

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." (California Code of Regulations, Title 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 a petition for a writ of mandate pursuant to Code of Civil Procedure, Section 1094.5.

All three contentions raised in this appeal present potentially valid grounds for appeal in that they allege the project's inconsistency with policies of the certified LCP and the public access policies of the Coastal Act. These contentions allege that the approval of the project by the County raises significant issues related to LCP provisions regarding:

(a) geologic hazards (b) public access, and (c) visual resources. In this case, for the reasons discussed further below, the Commission exercises its discretion and determines that with respect to the allegation concerning the consistency of the project as approved with the provisions of the LCP regarding geologic hazards, the appeal raises a substantial issue with regard to the approved project's conformance with the certified Mendocino County LCP.

**Allegations Raising Substantial Issue:**

**a. Geologic Hazards**

The Appellant contends that the geologic setbacks of the approved development from the bluff are not sufficient to protect the development from the hazards associated with coastal bluff erosion, stating that the cliff has eroded approximately one foot per year since the early 1960s. Further, it is alleged that the approved residence would cause geologic instability on the bluff, or "alteration of landforms," from the extensive water drainage from the buildings.

**LCP Policies and Standards**

LUP Policy 3.4-1 states:

*The County shall review all applications for Coastal Development permits to determine threats from and impacts on geologic hazards arising from seismic events, tsunami runup, landslides, beach erosion, expansive soils and subsidence and shall require appropriate mitigation measures to minimize such threats. In areas of known or potential geologic hazards, such as shoreline and bluff top lots and areas delineated on the hazards maps the County shall require a geologic investigation and report, prior to development, to be prepared by a licensed engineering geologist or registered civil engineer with expertise in soils analysis to determine if mitigation measures could stabilize the site. Where mitigation measures are determined to be necessary, by the geologist, or registered civil engineer the County shall require that the foundation construction and earthwork be supervised and certified by a licensed engineering geologist, or a registered civil engineer with soil analysis expertise to ensure that the mitigation measures are properly incorporated into the development.*

LUP Policy 3.4-2 states:

*The County shall specify the content of the geologic site investigation report required above. The specific requirements will be based upon the land use and building type as well as by the type and intensity of potential hazards. These site investigation requirements are detailed in Appendix 3.*

LUP Policy 3.4-3 states:

*The County shall review development proposals for compliance with the Alquist-Priolo Special Studies Zone Act (as amended May 4, 1975).*

LUP Policy 3.4-4 states:

*The County shall require that water, sewer, electrical, and other transmission and distribution lines which cross fault lines be subject to additional safety standards beyond those required for normal installations, including emergency shutoff where applicable.*

LUP Policy 3.4-5 states:

*The County shall require that residential, commercial and industrial structures be sited a minimum of 50 feet from a potentially, currently, or historically active fault. Greater setbacks may be required if warranted by local geologic conditions.*

LUP Policy 3.4-7 states:

*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:*

*Setback (meters) = Structure life (years) x 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 geologists report.*

LUP Policy 3.4-8 states:

*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 Policy 3.4-9 states:

*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.*

Section 20.500.015 of the Coastal Zoning Code states:

***(A) Determination of Hazard Areas.***

***(1) Preliminary Investigation.*** *The Coastal Permit Administrator shall review all applications for Coastal Development Permits to determine threats from and impacts on geologic hazards.*

***(2) Geologic Investigation and Report.*** *In areas of known or potential geologic hazards such as shoreline and blufftop lots and areas delineated on the hazard maps, a geologic investigation and report, prior to development approval, shall be required. The report shall be prepared by a licensed engineering geologist or registered civil engineer pursuant to the site investigation requirements in Chapter 20.532.*

***(B) Mitigation Required.*** *Where mitigation measures are determined to be necessary, the foundation, construction and earthwork shall be supervised and certified by a licensed engineering geologist or a registered civil engineer with soil analysis expertise who shall certify that the required mitigation measures are incorporated into the development. (Ord. No. 3785 (part), adopted 1991)*

Sec. 20.500.020, "Geologic Hazards - Siting and Land Use Restrictions," states in applicable part:

***(A) Faults.***

***(1) Residential, commercial and industrial structures shall be sited a minimum of fifty (50) feet from a potentially, currently or historically active fault. Greater setbacks shall be required if warranted by geologic conditions.***

***(2) Water, sewer, electrical and other transmission and distribution lines which cross fault lines shall be subject to additional standards for safety including emergency shutoff valves, liners, trenches and the like. Specific safety measures shall be prescribed by a licensed engineering geologist or a registered civil engineer.***

***(B) Bluffs.***

***(1) 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 (seventy-five (75) years). New development shall be setback from the edge of bluffs a distance determined from information derived from the required geologic investigation and the setback formula as follows:***

*Setback (meters) = structure life (75 years) x retreat rate  
(meters/year)*

*Note: The retreat rate shall be determined from historical observation  
(aerial photos) and/or from a complete geotechnical investigation.*

*(2) Drought tolerant vegetation shall be required within the blufftop  
setback.*

*(3) Construction landward of the setback shall not contribute to erosion of  
the bluff face or to instability of the bluff.*

**(D) Landslides.**

*(1) New development shall avoid, where feasible, existing and prehistoric  
landslides. Development in areas where landslides cannot be avoided  
shall also provide for stabilization measures such as retaining walls,  
drainage improvements and the like. These measures shall only be  
allowed following a full environmental, geologic and engineering review  
pursuant to Chapter 20.532 and upon a finding that no feasible, less  
environmentally damaging alternative is available.*

Section. 20.532.070, "Geologic Hazards -- Evaluation and Supplemental Application  
Information" states:

*(A) The extent of additional geotechnical study that must accompany Coastal  
Development applications depends on the site and type of project as follows:*

**(1) Land Use and Building Type.**

*(a) Type 1: Public, High Occupancy and Critical Use, including:  
Hospitals, Fire and Police Station, Communication Facilities,  
Schools, Auditoriums, Theaters, Penal Institutions, High-rise  
Hotels, Office and Apartment, Buildings (over 3 stories), and  
Major Utility Facilities.*

*(b) Type 2: Low Occupancy, including: Low-rise Commercial and  
Office Buildings (one (1) to three (3) stories), Restaurants (except  
in high-rise category), and Residential (less than eight (8) attached  
units and less than 3 stories).*

*(c) Type 3: Residential (less than eight (8) attached units), and  
Manufacturing and Storage/Warehouse except where highly toxic  
substances are involved which should be evaluated on an  
individual basis with mandatory geotechnical review.).*

*(d) Type 4: Open Space, Agricultural, Golf Courses, etc.*

**(2) Required Studies.**

**(a) Fault Rupture.** Prior to proceedings with any Type 1 development, published geologic information shall be reviewed by an engineering geologist or civil engineer, the site shall be mapped geologically and aerial photographs of the site and vicinity shall be examined for lineaments. Where these methods indicate the possibility of faulting, a thorough investigation is required to determine if the area contains a potential for fault rupture. All applications for development proposals shall be reviewed for compliance with the Alquist-Priolo Special Studies Zone Act pursuant to Subsection (D) below and shall be deemed incomplete until such time as the reviewing geologist report is accepted by the County.

**(b) Seismic-Related Ground Failure.** Site investigation requirements for seismic-related ground failure are described as follows:

(i) Land Use/Building Type 2 and 3 within Zone 1 (Low): Current building code requirements must be met, as well as other existing state and local ordinances and regulations. A preliminary geotechnical investigation should be made to determine whether or not the hazards zone indicated by the Land Capabilities/Natural Hazards maps is reflected by site conditions.

(ii) Land Use/Building Type 1 within Zone 1 (Low) and Land Use/Building Type 3 within Zones 2 (Moderate) and Zone 3 (High): In addition to Subsection (i), above, geotechnical investigation and structural analysis sufficient to determine structural stability of the site for the proposed use is necessary. It may be necessary to extend the investigation beyond site boundaries in order to evaluate the shaking hazard. All critical use structure sites require detailed subsurface investigation.

(iii) Land Use/Building Type 1 within Zone 2 (Moderate) and Land Use/Building Type 2 within Zones 2 (Moderate) and Zone 3 (High): In addition to Subsections (i) and (ii), above, surface and/or subsurface investigation and analyses sufficient to evaluate the site's potential for liquefaction and related ground failure shall be required.

(iv) Land Use/Building Type 1 within Zone 3 (High): In addition to Subsections (i), (ii) and (iii), detailed dynamic ground response analyses must be undertaken.

*(3) Unspecified land uses shall be evaluated and assigned categories of investigation on an individual basis.*

*(a) Tsunami. Land Use Types 1, 2 and 3 shall not be permitted in tsunami-prone areas. Development of harbors and Type 4 uses should be permitted, provided a tsunami warning plan is established.*

*(b) Landsliding. All development plans shall undergo a preliminary evaluation of landsliding potential. If landslide conditions are found to exist and cannot be avoided, positive stabilization measures shall be taken to mitigate the hazard.*

***(B) Review of Geologic Fault Evaluation Report by County Geologist. An application for development which requires a report or waiver prepared pursuant to the Alquist Priolo Act shall not be accepted as complete unless and until there are:***

*(1) A fully executed agreement between a geologist registered in the State of California and the County to either review the report required hereinabove or to prepare a request for waiver; and*

*(2) A fully executed agreement between the County and the applicant to reimburse the County for the costs incurred pursuant to the agreement specified in subparagraph (1) above.*

*Within thirty (30) days of an application for development located within an Alquist-Priolo special study area, the County shall cause a geologist registered in the State of California (hereinafter called County reviewing geologist) to review the geologic report. The review shall assess the adequacy of the documentation contained in the report, and the appropriateness of the depth of study conducted in consideration of the use proposed for the project site. The County reviewing geologist shall prepare a written review which either concurs or does not concur with the scope, methodology, interpretations, conclusions, and recommendations of the geologic report. Said review shall be subject to comment and revision as may be deemed necessary by the County.*

*Within thirty (30) days after acceptance of the geologic report, the County shall forward it to the State Geologist to be placed on open file. (Ord. No. 3785 (part), adopted 1991)*

### Discussion

BACE Geotechnical, Inc. conducted a geotechnical investigation for the approved project in June 2004, and concluded that the site is geotechnically suitable for the development. The report states that the main geotechnical constraints that should be considered in the design and construction of the project include bluff stability, strong seismic shaking from future earthquakes, fault rupture hazard, settlement, and erosion control. BACE

recommended a bluff setback from the southwest bluff of 30 feet, 25 feet from the northwest bluff, and 19 feet from the southeast bluff. The approved house is in conformance with these setbacks.

LUP Policy 3.4-7 and Coastal Zoning Code Section 20.500.020 require that a site for new development remain stable for its expected economic life, which is defined as 75 years. Policy 3.4-1 and Coastal Zoning Code Section 20.500.020 require mitigation measures to minimize threats to the development from geologic hazards arising from landslides, seismic events, beach erosion and other geologic events. A setback adequate to protect development over the economic life of a development must account both for the expected bluff retreat during that time period and the existing slope stability. Long-term bluff retreat is measured by examining historic data including vertical aerial photographs and any surveys conducted that identified the bluff edge. Slope stability is a measure of the resistance of a slope to land sliding, and is assessed by a quantitative slope stability analysis. In such an analysis, the forces resisting a potential landslide are first determined. These are essentially the strength of the rocks or soils making up the bluff. Next, the forces driving a potential landslide are determined. These forces are the weight of the rocks as projected along a potential slide surface. The resisting forces are divided by the driving forces to determine the "factor of safety." The process involves determining a setback from the bluff edge where a factor of safety of 1.5 is achieved. The Commission generally defines "stable" with respect to slope stability as a minimum factor of safety of 1.5 against landsliding. Because BACE did not conduct a quantitative slope stability analysis, it is unknown where on the bluff top a 1.5 factor of safety is attained, nor what parts of the bluff top will have a 1.5 factor of safety at the end of 75 years of bluff retreat. In this case, there is good reason to consider that the approved development will have stability problems because (a) it is located near the tip of a point, which will focus wave energy; (b) there is a dormant landslide to the west which can be expected to reactivate as marine erosion erodes its toe; and (c) there are active landslides on the south side demonstrating that the bluff is unstable.

Thus, because based on the existing geotechnical investigation one cannot find that (a) the approved project site will be stable over the life of the project, and (b) that threats to the development from geologic hazards have been minimized and mitigated, the degree of legal and factual support for the local government's decision is low. Therefore, the Commission finds that the project as approved raises a substantial issue of conformance with the provisions of LUP Policies 3.4-1 and 3.4-7 and Coastal Zoning Code Sections 20.500.020

**Allegations Raising No Substantial Issue:**

As discussed below, the Commission finds that with respect to the appellant's allegations regarding 1) public access, and 2) visual resources, the project as approved by the County raises no substantial issue with the certified LCP or the access provisions of the Coastal Act.



b. Public Access

The Appellant contends that the County did not require physical public access to the shoreline from the subject property, inconsistent with public access policies of the LCP, alleging that despite the passage of the Coastal Act Proposition 20 in 1972, physical access to the shoreline is no longer being required on projects.

LCP and Coastal Act Policies and Standards

Land Use Plan (LUP) Policy 3.6-5 states in applicable part:

*Acquisition methods such as bequests, gifts, and outright purchases are preferred by the County when obtaining public access from private landowners. Other suitable voluntary methods such as a non-profit land trust may be helpful and should be explored in the future. If other methods of obtaining access as specified above have not occurred, developers obtaining coastal development permits shall be required prior to the issuance of the coastal development permit to record an offer to dedicate an easement for public access purposes (e.g. vertical, lateral, parking areas, etc.) where it is delineated in the land use plan as a condition of permit approval. The offer shall be in a form and content approved by the Commission and shall be recorded in a manner approved by the Commission before the coastal development permit is issued.*

LUP Policy 3.6-9 states:

*Offers to dedicate an easement shall be required for all areas designated on the land use plan maps. Where sufficient sites in public ownership exist, additional private lands or easements over private lands beyond those shown on the land use plan maps shall not be required without a plan amendment or as otherwise required by the County. When considering such an amendment sites for shoreline access in public ownership shall be favored over those in private ownership.*

LUP Policy 3.6-12 states:

*Vertical accessways not shown on the Land Use Maps or required by these policies shall not be required as a condition of permit approval unless the plan shall have been amended to change the intensity of use, or to delete an access point shown on the plan and serving a similar need.*

LUP Policy 3.6-25 states:

*Public access policies shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:*

- topographic and geologic site characteristics;*
- capacity of the site to sustain use and at what level of intensity;*
- fragility of natural resource areas and proximity to residential uses;*
- need to provide for management of the access;*
- balance between the rights of individual property owners and the public's constitutional rights of access.*

LUP Policy 3.6-27 states:

*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. Development may be sited on the area of historic public use only if: (1) no development of the parcel would otherwise be possible, or (2) proposed development could not otherwise be sited in a manner which minimizes risks to life and property, or (3) such siting is necessary for consistency with the policies of this plan concerning visual resources, special communities, and archaeological resources. When development must be sited on the area of historic public use an equivalent easement providing access to the same area shall be provided on the site.*

LUP Policy 3.6-28 states:

*New development on parcels containing the accessways identified on the land use maps shall include an irrevocable offer to dedicate an easement, as required by other policies in this Chapter, for public use. Such offers shall run for a period of 21 years and shall be to grant and convey to the people of the State of California an easement for access over and across the offeror's property.*

Section 20.528.010 of the Mendocino County Coastal Zoning Code, "Minimum Access Locations," states in applicable part:

*(A) In specified areas identified in Chapter 4 of the Coastal Element or as indicated on land use maps, prior to the issuance of a coastal development permit, an offer to dedicate an easement for public access shall be recorded unless required public access has otherwise been secured as provided herein.*

Section 20.528.030 of the Coastal Zoning Code, "Prescriptive Rights," states:

*Provisions related to prescriptive rights are as follows:*

*(A) Existing Public Easement. No development shall be approved on a site which will conflict with easements acquired by the public at large by court decree.*

***(B) Potential Existence of Prescriptive Right.***

*(1) Rights Not Yet Established. Where evidence of historic public use indicates the potential for the existence of prescriptive rights, but rights have not been judicially determined, the County Planning and Building Department staff shall apply research methods described in the Attorney General's Manual on Implied Dedication and Prescriptive Rights.*

*(2) Potential Existence of Rights Established. Where research indicates the potential existence of prescriptive rights, an access easement shall be required as a condition of permit approval.*

***(C) Development in Area of Historic Public Use.***

*(1) Development may be sited on the area of historic public use only if:*

*(a) No development of the parcel would otherwise be possible; or*

*(b) Proposed development could not otherwise be sited in a manner which minimizes risks to life and property; or*

*(c) Such siting is necessary for consistency with the policies of the Coastal Element concerning visual resources, special communities, and paleontological and archaeological resources.*

*(2) When development must be sited on an area of historic public use, an equivalent easement providing access to the same area shall be provided on the site as a condition of permit approval. (Ord. No. 3785 (part), adopted 1991)*

Section 30210 of the Coastal Act requires that maximum public access 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.

#### Discussion

In applying Sections 30210, 30211 and 30212 of the Coastal Act and the public access policies and standards of the certified LCP listed above, 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 avoid or offset a project's adverse impact on existing or potential access. There are no existing trails to the shoreline on the property, and the site is not designated as a potential public access location on the LUP maps. Additionally, the development would not interfere with any historic public use of the property, and there are no indications of the existence of prescriptive rights or existing public access easements on the parcel, adding further support to the County's decision not to require public access as a condition of permit approval. Moreover, the proposed replacement of a single-family residence would not increase the density of development and bring more people to the shoreline, and thus would not increase the demand for additional public access facilities.

Thus, because the approved development would not adversely affect any existing or proposed public access, the local government has a high degree of factual and legal support for its decision to not require public access, and no substantial issue is raised with regard to the conformance of the project with the public access policies of the LCP and the Coastal Act. Therefore, the Commission finds that the contention raised by the appellants does not raise a substantial issue of conformance of the approved project with provisions of the Certified Local Coastal Program and the public access policies of the Coastal Act.

#### **b. Visual Resources**

The Appellant contends that the approved development would be highly visible from Iversen Point Road and that the development is incompatible with the "established visual scale" of the area, alleging that the development and its associated infrastructure will take up nearly 75% of the land, and that the interior floor area is twice that of other residences in the neighborhood.

#### LCP Policies and Standards

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. New development in highly scenic areas designated by the County of Mendocino Coastal Element shall be subordinate to the character of its setting.*

LUP Policy 3.5-3 states:

*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 development permitted in these areas shall provide for the 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 south boundary of the City of Point Arena and the Gualala 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. Variances from this standard may be allowed for planned unit development that provides clustering and other forms of meaningful visual mitigation. New development should be subordinate to natural setting and minimize reflective surfaces. All proposed divisions of land and boundary line adjustments within "highly scenic areas" will be analyzed for consistency of potential future development with visual resource policies and shall not be allowed if development of resulting parcel(s) could not be consistent with visual policies.*

LUP Policy 3.5-4 states:

*Buildings and building groups that must be sited within the highly scenic area shall be sited near the toe of a slope, below rather than on a ridge, or in or near the edge of a wooded area. Except for farm buildings, development in the middle of large open areas shall be avoided if an alternative site exists.*

*Minimize visual impact of development on hillsides by (1) requiring grading or construction to follow the natural contours; (2) resiting or prohibiting new development that requires grading, cutting and filling that would significantly and permanently alter or destroy the appearance of natural landforms; (3) designing structures to fit hillside sites rather than altering landform to accommodate*

*buildings designed for level sites; (4) concentrate development near existing major vegetation, and (5) promote roof angles and exterior finish which blend with hillside. Minimize visual impacts of development on terraces by (1) avoiding development in large open areas if alternative site exists; (2) minimize the number of structures and cluster them near existing vegetation, natural landforms or artificial berms; (3) provide bluff setbacks for development adjacent to or near public areas along the shoreline; (4) design development to be in scale with rural character of the area. Minimize visual impact of development on ridges by (1) prohibiting development that projects above the ridgeline; (2) if no alternative site is available below the ridgeline, development shall be sited and designed to reduce visual impacts by utilizing existing vegetation, structural orientation, landscaping, and shall be limited to a single story above the natural elevation; (3) prohibiting removal of tree masses which destroy the ridgeline silhouette. Nothing in this policy shall preclude the development of a legally existing parcel.*

LUP Policy 3.5-5 states in applicable part:

*Providing that trees will not block coastal views from public areas such as roads, parks and trails, tree planting to screen buildings shall be encouraged. In specific areas, identified and adopted on the land use plan maps, trees currently blocking views to and along the coast shall be required to be removed or thinned as a condition of new development in those specific areas. New development shall not allow trees to block ocean views.*

Section 20.504.015, "Highly Scenic Areas", of the Coastal Zoning Code states in applicable part:

***(C) Development Criteria.***

*(1) 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.*

*(2) 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.*

*(3) 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.*

*(5) Buildings and building groups that must be sited in highly scenic areas shall be sited:*

- (a) Near the toe of a slope;*
- (b) Below rather than on a ridge; and*
- (c) In or near a wooded area.*

...

*(7) Minimize visual impacts of development on terraces by the following criteria:*

- (a) Avoiding development, other than farm buildings, in large open areas if alternative site exists;*
- (b) Minimize the number of structures and cluster them near existing vegetation, natural landforms or artificial berms;*
- (c) Provide bluff setbacks for development adjacent to or near public areas along the shoreline;*
- (d) Design development to be in scale with rural character of the area.*

*(10) Tree planting to screen buildings shall be encouraged, however, new development shall not allow trees to interfere with coastal/ocean views from public areas.*

*(11) Power transmission lines shall be located along established corridors where possible and where the corridors are not visually intrusive.*

*(12) Power distribution lines shall be placed underground in designated "highly scenic areas" west of Highway 1 and in new subdivisions. East of Highway 1, power lines shall be placed below ridgelines if technically feasible.*

*(13) Access roads and driveways shall be sited such that they cause minimum visual disturbance and shall not directly access Highway 1 where an alternate configuration is feasible. (Ord. No. 3785 (part), adopted 1991)*

Section 20.504.020 of the Coastal Zoning Code states in applicable part:

*(D) 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. New*

*development in highly scenic areas designated by the County of Mendocino Coastal Element shall be subordinate to the character of its setting. (Ord. No. 3785 (part), adopted 1991)*

Discussion

The appellant contends that the approved development would be visible from Iversen Point Road and that the scale of the approved development, namely the residence, workshop, and the guesthouse, is incompatible with the character of the residences in the surrounding area. The subject property is located in an area designated as "highly scenic" on the LUP maps, and LCP policies for highly scenic areas require, among others, that the development not impede public views to the coast and that the development be "subordinate to the character of its setting." Standards include that the development not exceed eighteen (18) feet in height unless an increase in height would not affect public views to the ocean or be out of character with surrounding structures.

There is an existing residence on the property that extends out onto the bluff on the southwesterly tip of the parcel, and this existing residence is visible from Iversen Point Road. The approved project includes the removal of this existing house, and constructing a new house approximately five feet further back from the existing house location. This would put a large portion of the new residence behind a cluster of evergreen trees on the southwestern side of the bluff, leaving about ¼ of the house extending seaward of the trees. Upon viewing the approved project site from Iversen Point Road, including the erected story poles that depict the ridgelines of the approved residence, workshop, and guest cottage, Commission staff concluded that the development would be largely obscured by evergreen trees, which surround the parcel boundaries. While one would be able to see the buildings, one can also see neighboring residences from this same vantage point, and the approved residence would be subordinate to the character of its setting.

The increase in roof height of the Cupola to 21'5" over the standard 18' is offset by the fact that it will not affect public views of the ocean, consistent with Section 20.504.015 of the Coastal Zoning Code and LUP Policies 3.5-1 and 3.5-3. Furthermore, the roof ridges over the majority of the house have a height of approximately 16'6", less than the LCP 18' standard for highly scenic areas. While the approved development does include three buildings, the total lot coverage is only 10.5%, below the maximum coverage of 15% required for parcels zoned Rural Residential-2 acre minimum. The primary residence would be 2,259 square feet, which is not particularly large, and not out of character with the surrounding residences. Moreover, because of the existing evergreen trees along the parcel boundary bordering the highway, and a newly planted second layer of trees along this boundary, the approved development would be barely visible from Highway One. While the existing residence can be seen through the trees from the highway as one passes in front of the parcel, it is barely noticeable. Furthermore, if the proposed development were viewed from Highway One, one would only see one structure, because the structures are laid out in a vertical line from the seaward side of the parcel towards the highway side of the parcel (see exhibit 3). This would not be out of character with the neighboring residences, which are located closer to the highway.



Thus, because the approved development would a) not block public views to the ocean from any public vantage point; and b) the approved development would be compatible with and subordinate to the character of its setting; the local government has a high degree of factual and legal support for its decision to approve the project, and no substantial issue is raised with regard to the conformance of the project with the visual resource policies of the LCP. Therefore, the Commission finds that the contention raised by the appellant does not raise a substantial issue of conformance of the approved project with provisions of the Certified Local Coastal Program and the public access policies of the Coastal Act.

### **Conclusion**

All of the various foregoing contentions raised by the appellants have been evaluated against the claim that they raise a substantial issue in regard to conformance of the local approval with the certified LCP. The Commission finds that the project as approved raises a substantial issue of conformance with the certified LCP with respect to contentions raised concerning geologic stability.

### **E. INFORMATION NEEDED FOR *DE NOVO* REVIEW OF APPLICATION**

As stated above, Section 30625(b) of the Coastal Act requires the Commission to hear an appeal unless the Commission determines that no substantial issue exists with respect to the grounds on which an appeal has been filed. Section 30621 of the Coastal Act instructs the Commission to provide for a *de novo* hearing on all appeals where it has determined that a substantial issue exists with respect to the grounds on which an appeal has been filed. If the Commission finds substantial issue as recommended above, staff also recommends that the Commission continue the *de novo* hearing to a subsequent date. The *de novo* portion of the appeal must be continued because the Commission does not have sufficient information to determine what, if any, development can be approved, consistent with the certified LCP.

Given that the project the Commission will be considering *de novo* has come to the Commission after an appeal of a local government action, the Commission has not previously been in the position to request information from the applicant needed to determine if the project can be found to be consistent with the certified LCP. Following is a discussion of the information needed to evaluate the development.

### **Geotechnical Analyses**

As discussed above, authorization of the placement of the proposed structures on a bluff top lot is contingent on making findings that (a) the approved project site will be stable over the life of the project, and (b) that threats to the development from geologic hazards will be minimized and mitigated. Because the existing

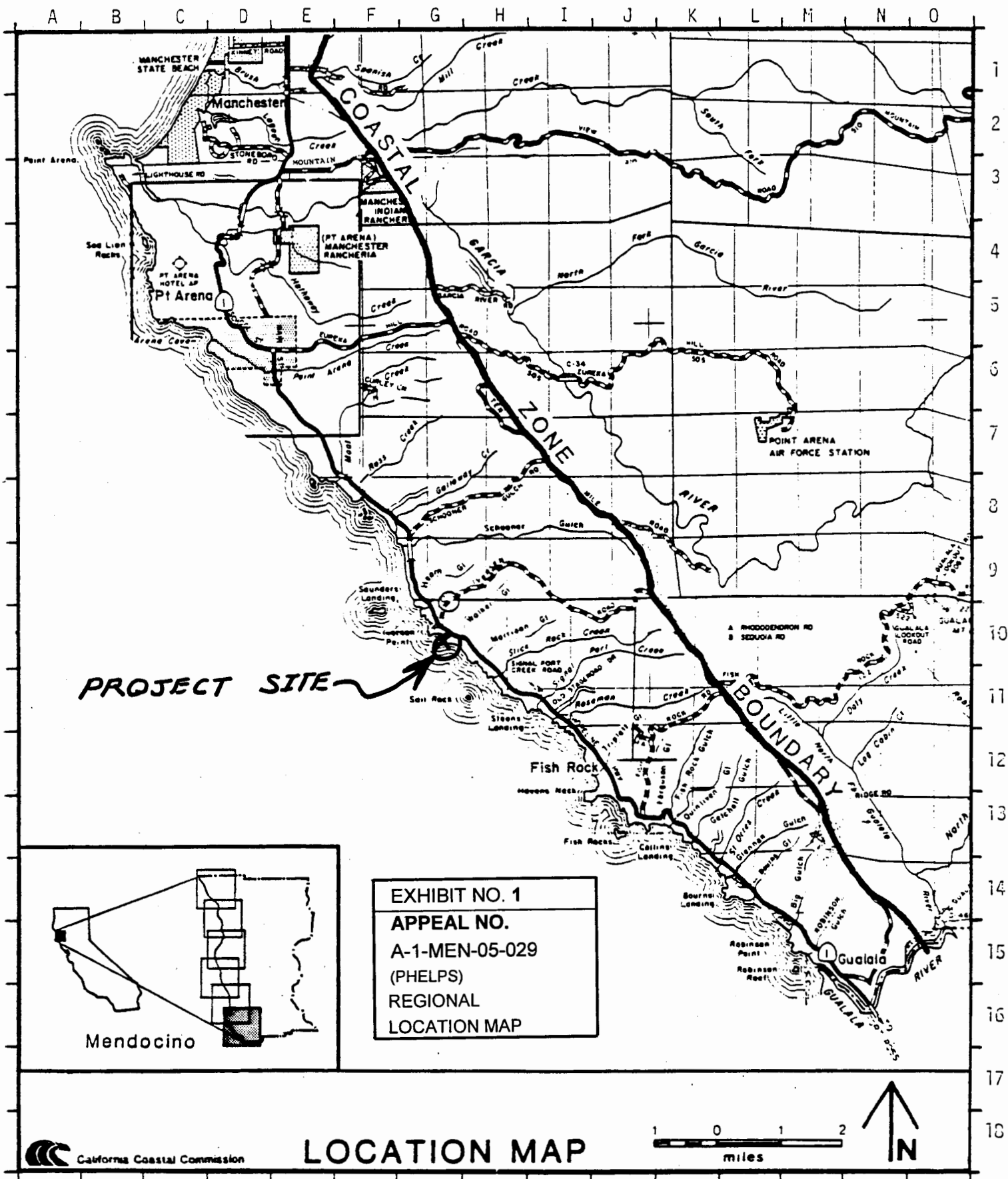
geotechnical report does not have sufficient information with which to make these findings, a "quantitative slope stability analysis" is needed that determines: (1) the static minimum factor of safety against landsliding of the bluff in its current configuration; (2) assuming that factor of safety obtained in (1) is less than 1.5, the location on the bluff top where a factor of safety of 1.5 is obtained; (3) the pseudostatic minimum factor of safety of the bluff, using a horizontal seismic coefficient of 0.15g; and (4) assuming that the factor of safety in (3) is less than 1.1, the location on the bluff top where a factor of safety of 1.1 is obtained.

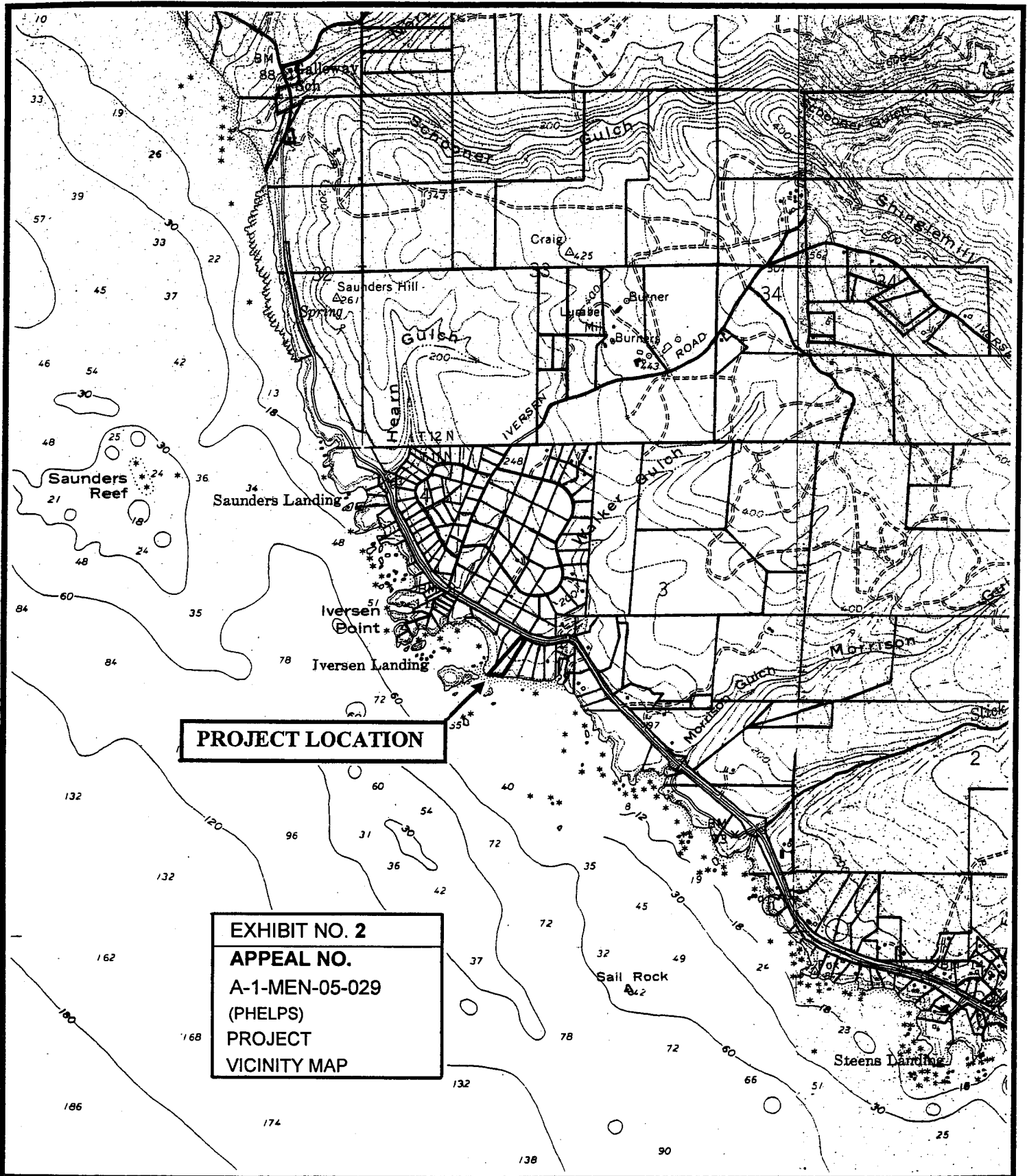
The June 15, 2004 BACE Geotechnical Investigation estimates the long term average bluff retreat rate 3.2"/yr for the southwest bluff, 2.6"/yr for the northwest bluff, and 2"/yr for the southeast bluff. In order to make the findings described above, additional information is needed as to how these figures were determined, and, assuming that the figures represent historic long-term average bluff retreat rates, what time intervals they represent. In addition, an assessment of the effect of rising sea level on future erosion rates of the bluff is also needed.

Without the above information, the Commission cannot reach a final determination concerning the consistency of the project with the geologic hazard policies of the LCP. Therefore, before the Commission can act on the proposed project *de novo*, the applicant must submit all of the above-identified information.

#### EXHIBITS

1. Regional Location Map
2. Vicinity Map
3. Project Plans
4. Notice of Final Action
5. Appeal
6. BACE Geotechnical Analysis





CASE NO: CDP 62-04

**EXHIBIT A**

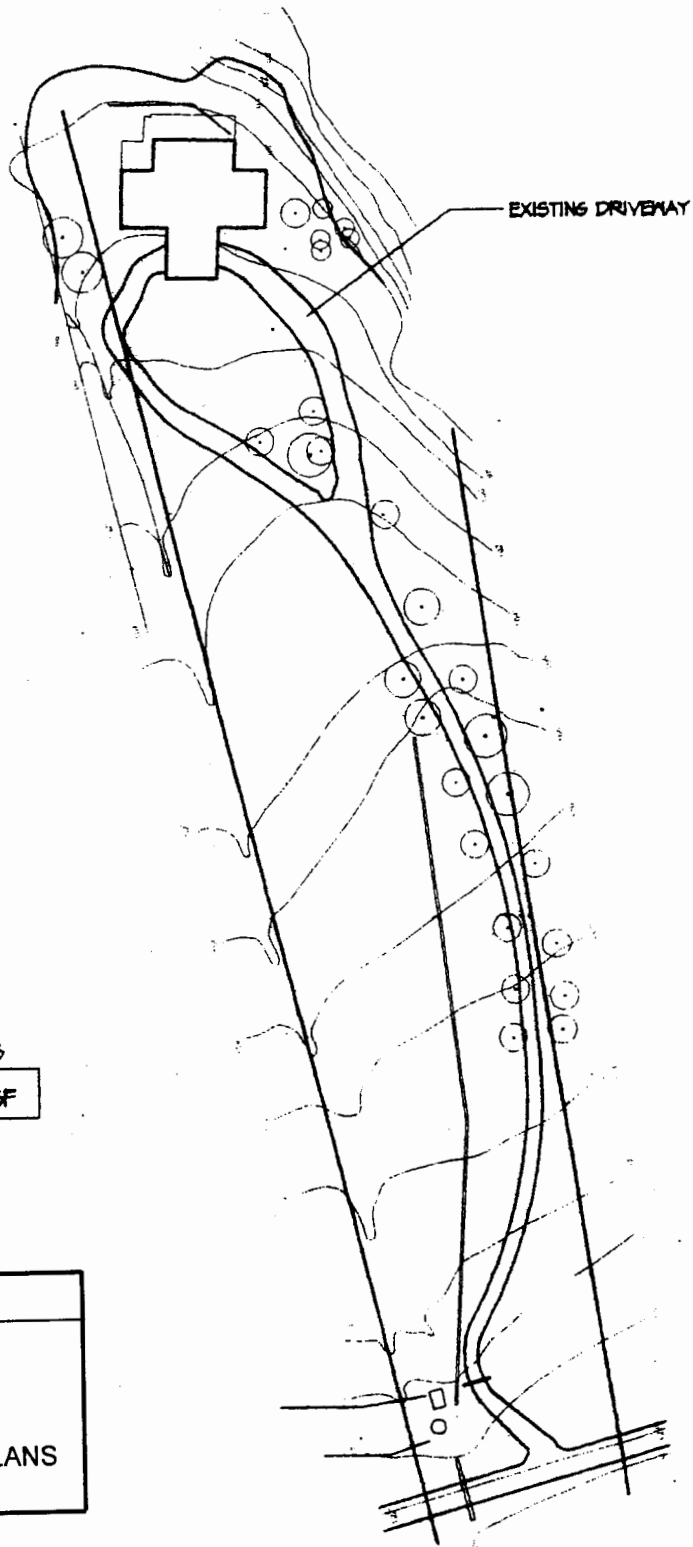
**CHARLES & DALE PHELPS**

**LOCATION MAP**

SCALE: 1 INCH = 2000 FEET



**NORTH**



CASE NO: CDP 62-04

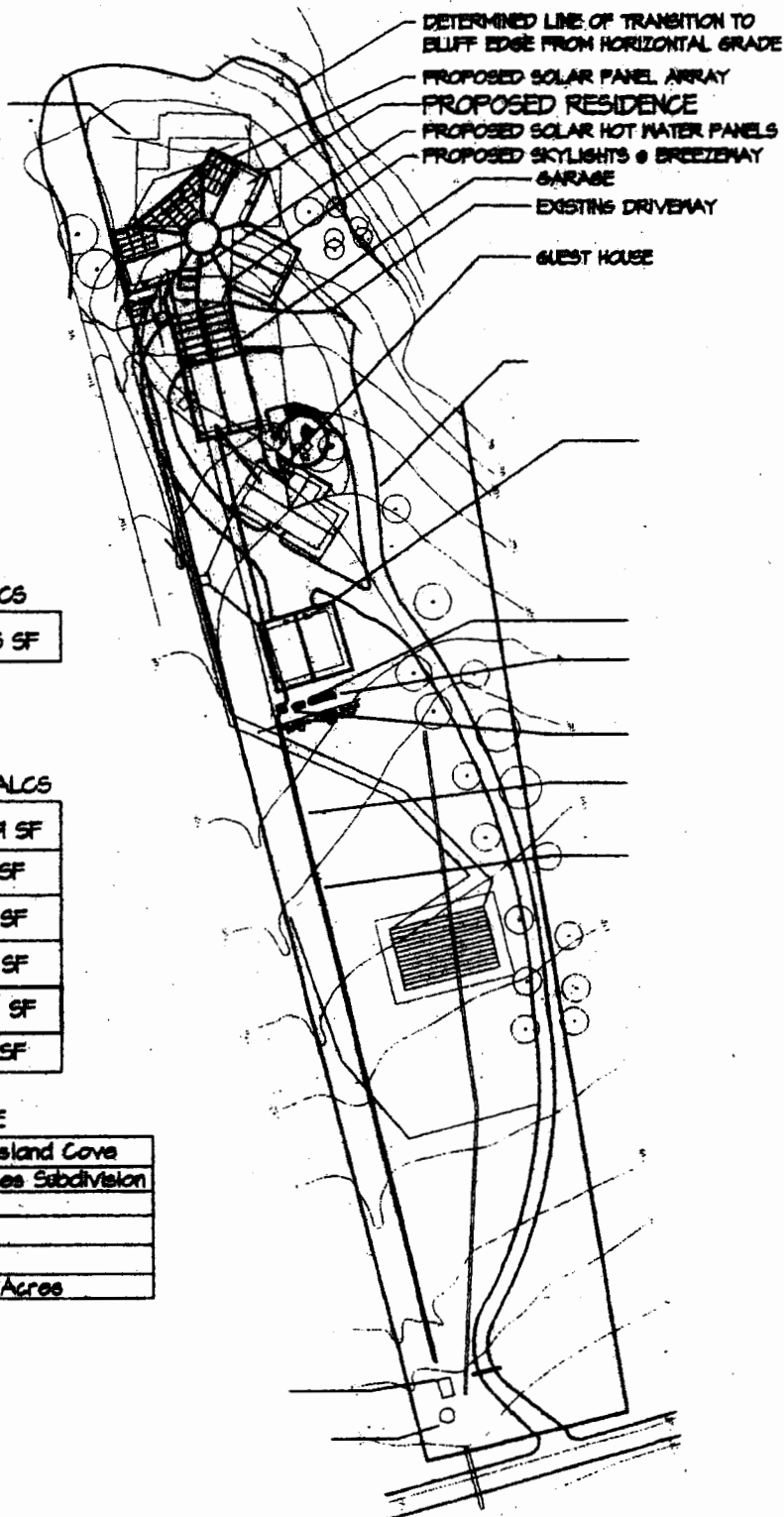
EXHIBIT B

CHARLES & DALE PHELPS

EXISTING SITE PLAN

SCALE: NONE





#### EXISTING AREA CALCS

|           |         |
|-----------|---------|
| RESIDENCE | 1805 SF |
|-----------|---------|

#### PROPOSED AREA CALCS

|             |         |
|-------------|---------|
| RESIDENCE   | 2259 SF |
| WORKSHOP    | 518 SF  |
| GUEST HOUSE | 486 SF  |
| ART STUDIO  | 268 SF  |
| TOTAL       | 9561 SF |
| GARAGE      | 672 SF  |

#### DATA TABLE

|             |                     |
|-------------|---------------------|
| Subdivision | #46 Island Cove     |
|             | Estates Subdivision |
| Section     | 142                 |
| Block       | 081                 |
| Lot         | 11                  |
| Area        | 2.55 Acres          |

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CASE NO: CDP 62-04

EXHIBIT C

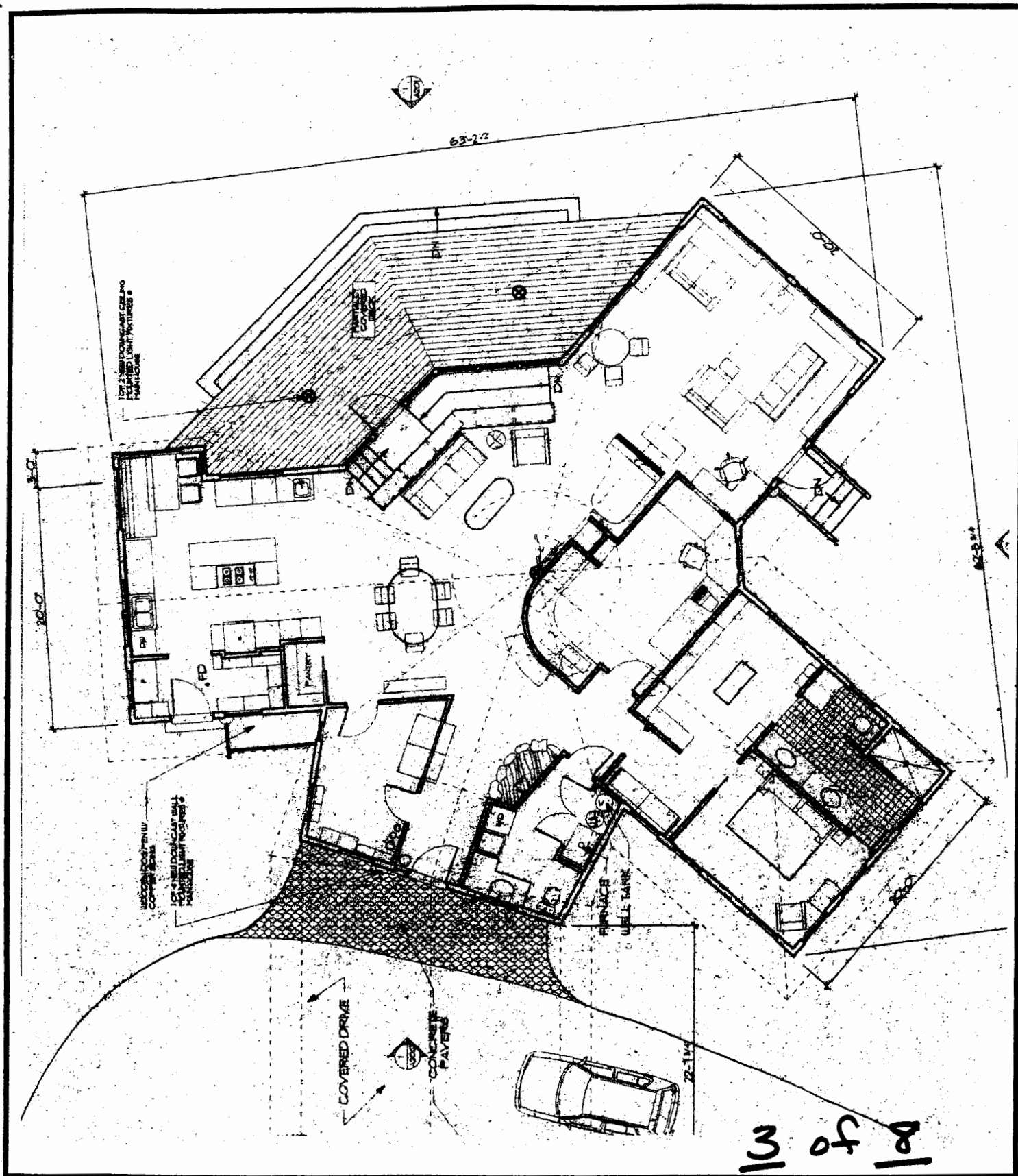
CHARLES & DALE PHELPS

PROPOSED SITE PLAN

SCALE: NONE



NORTH



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EXHIBIT D

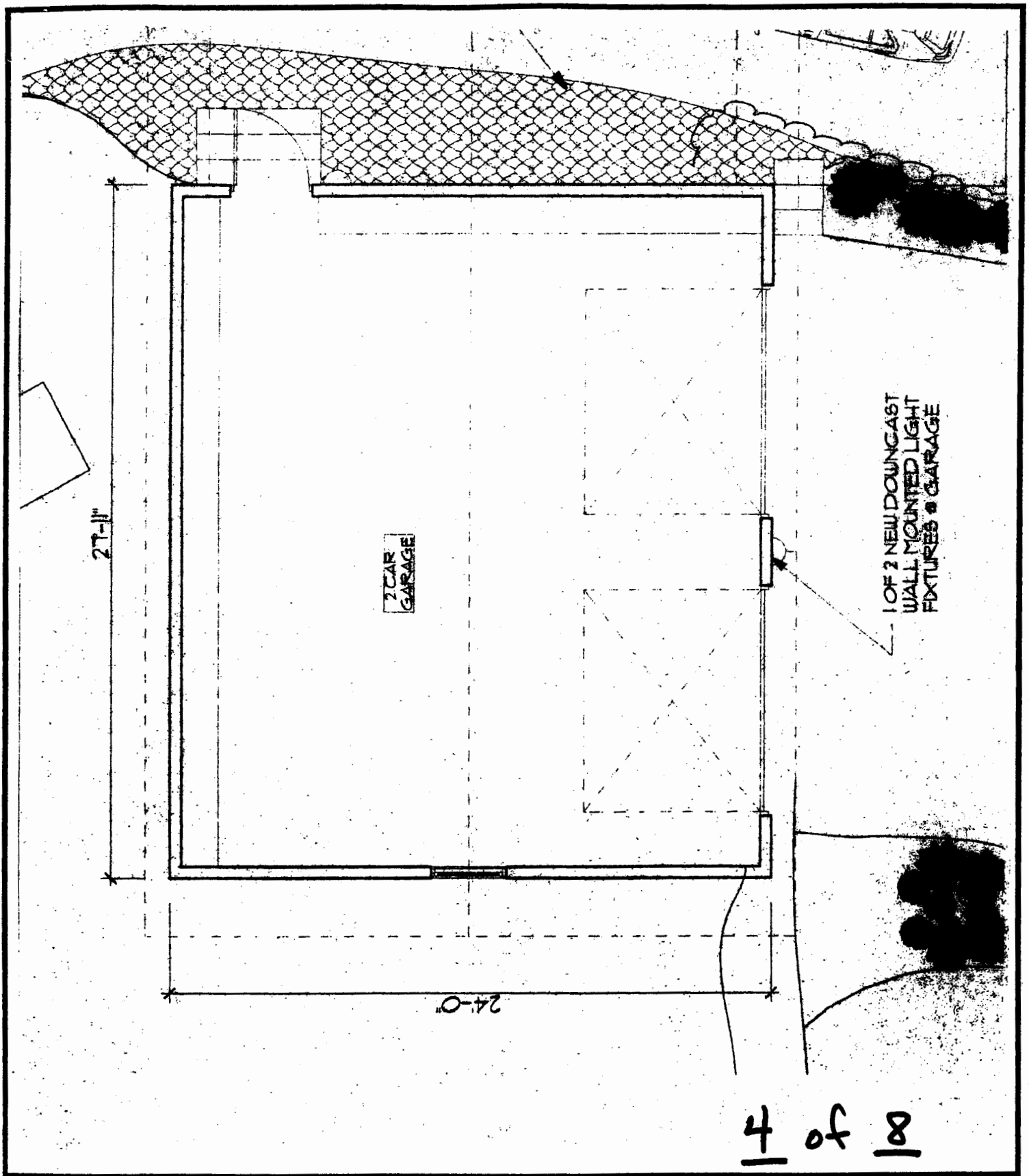
CHARLES & DALE PHELPS

RESIDENCE FLOOR PLAN

SCALE: NONE



NORTH



CASE NO: CDP 62-04

EXHIBIT E

CHARLES & DALE PHELPS

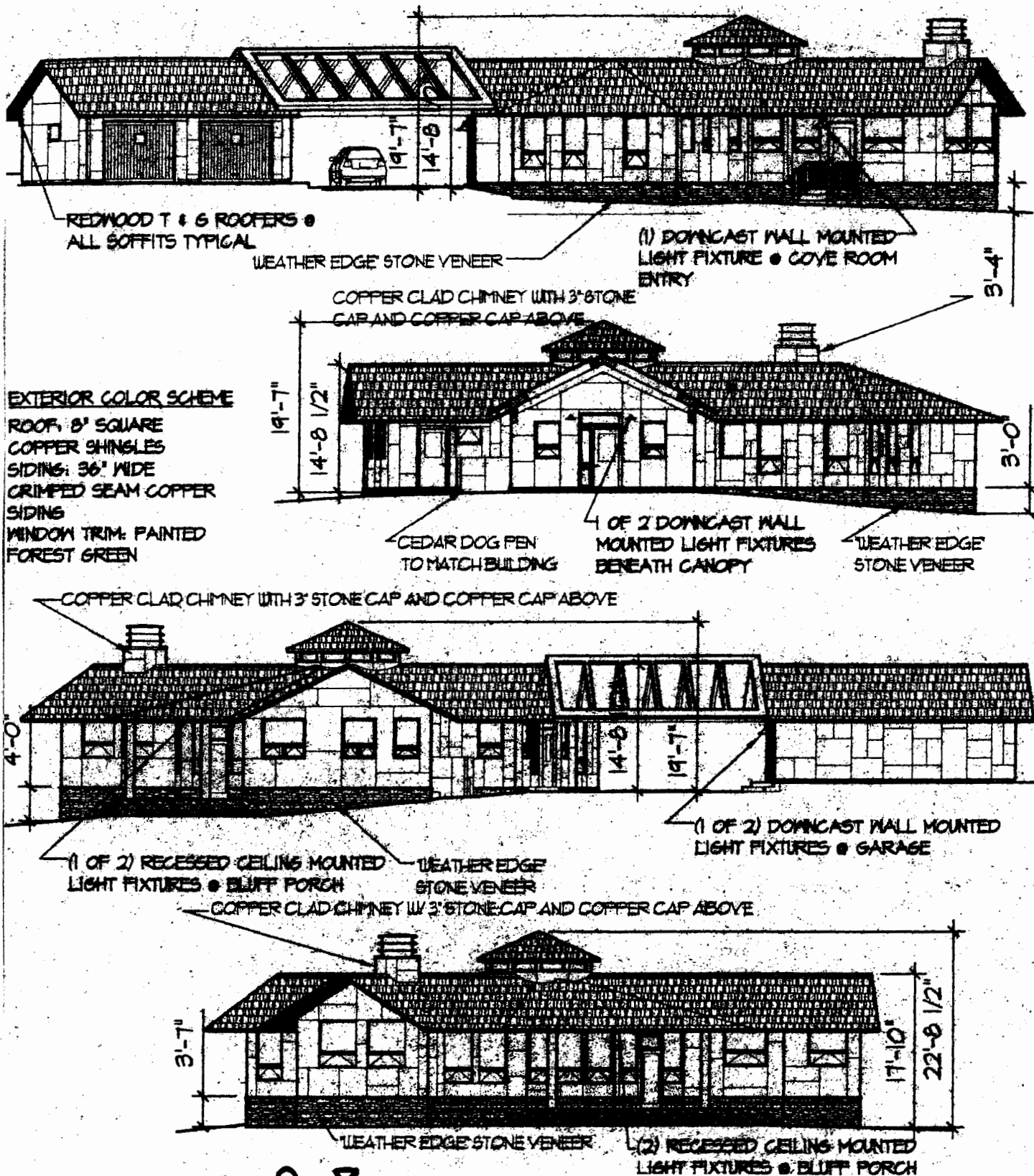
GARAGE FLOOR PLAN

SCALE: NONE



NORTH





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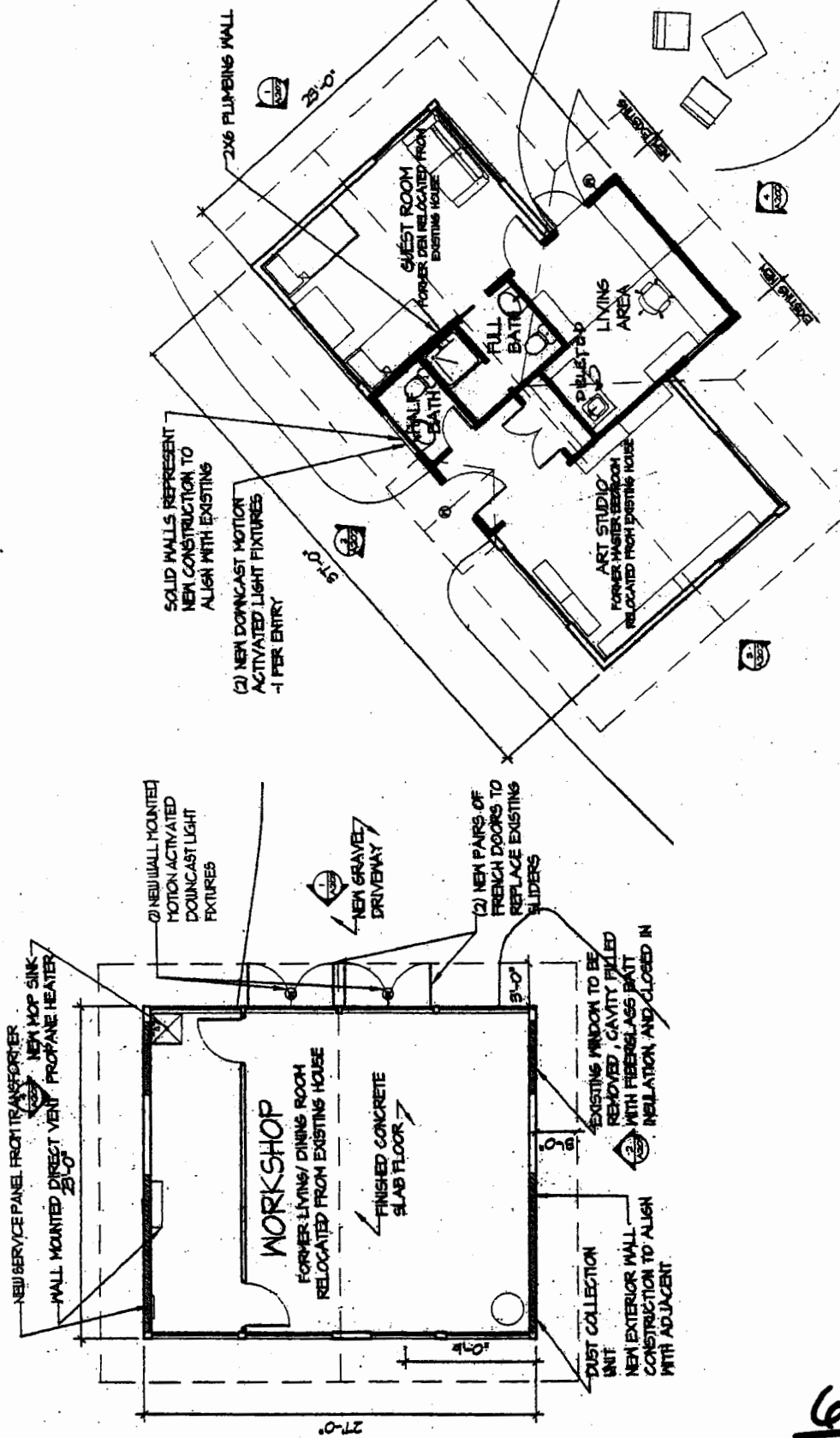
CASE NO: CDP 62-04

EXHIBIT F

CHARLES & DALE PHELPS

RESIDENCE ELEVATIONS

SCALE: NONE



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CASE NO: CDP 62-04

EXHIBIT G

CHARLES & DALE PHELPS

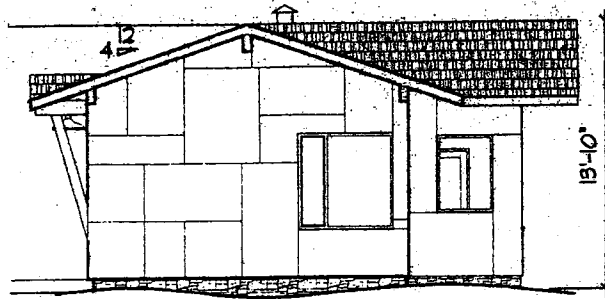
GUEST COTTAGE & WORKSHOP PLANS

SCALE: NONE



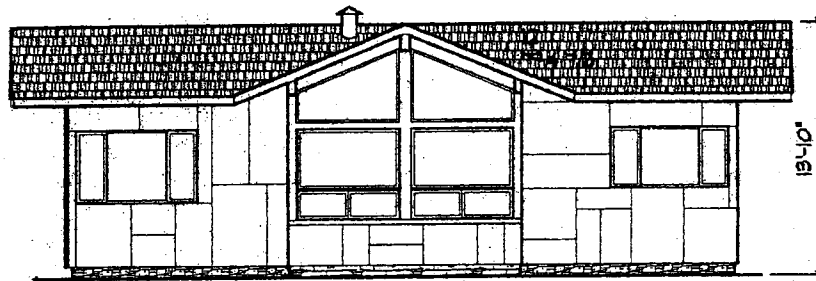
NORTH

NORTH ELEV.



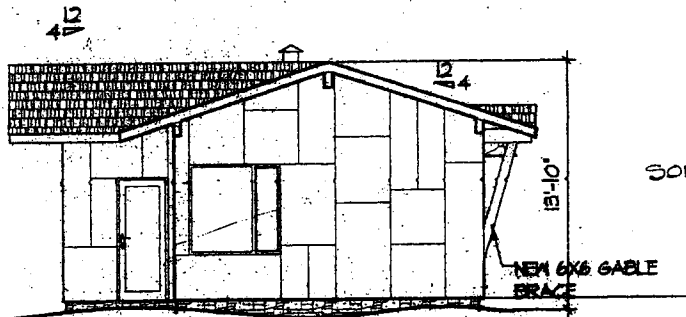
WEST ELEV.

EXTERIOR COLOR SCHEME  
 ROOF: 8" SQUARE  
 COPPER SHINGLES  
 SIDING: 8 1/2" WIDE  
 CRIMPED SEAM COPPER  
 SIDING  
 WINDOW TRIMS PAINTED  
 FOREST GREEN



EXISTING | NEW

NEW | EXISTING

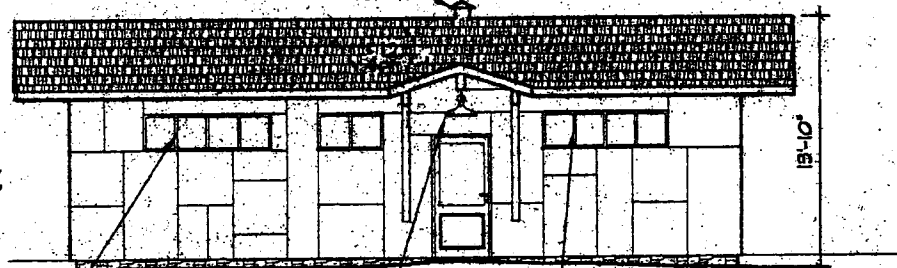


SOUTH ELEV.

NEW 6X6 GABLE  
 BRACE

COPPER VENT CAP TO MATCH MAIN HOUSE

EAST ELEV.



EXISTING WINDOWS TO  
 REMAIN

EXISTING | NEW

EXISTING WINDOWS TO  
 REMAIN

NEW | EXISTING

(1) NEW DOWNCAST MOTION  
 ACTIVATED LIGHT FIXTURE

7 of 8

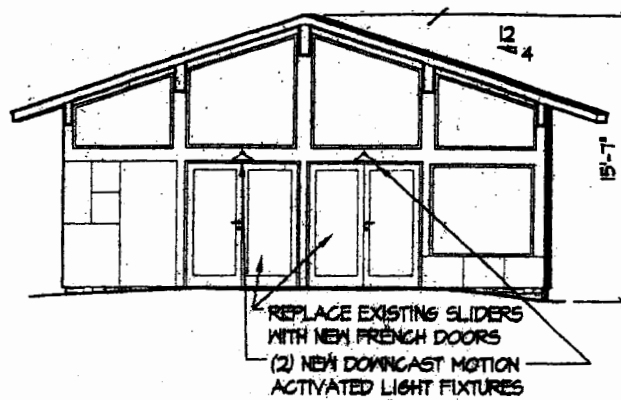
CASE NO: CDP 62-04

EXHIBIT H

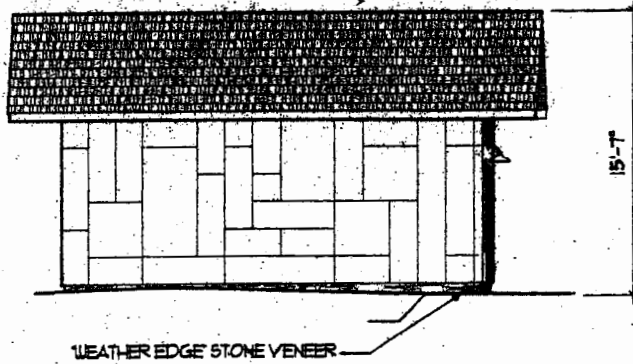
CHARLES & DALE PHELPS

GUEST COTTAGE & ELEVATIONS

SCALE: NONE

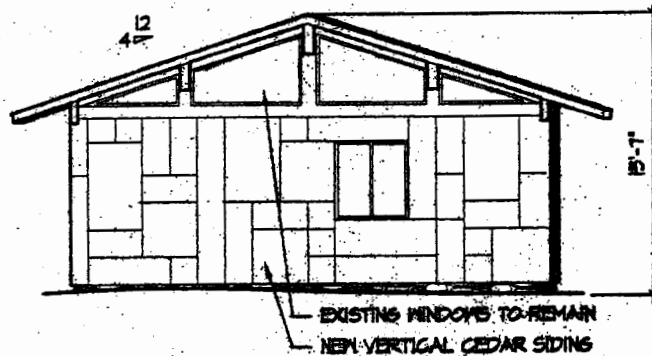


SW ELEV.

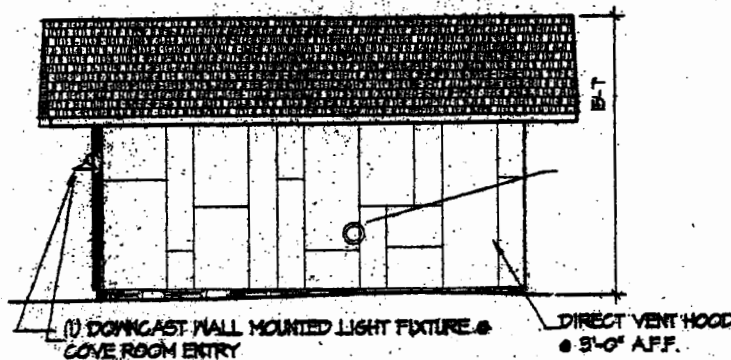


NW ELEV.

EXTERIOR COLOR SCHEME  
 ROOF: 12" SQUARE  
 COPPER SHINGLES  
 SIDING: 6" WIDE  
 CRIPPLED BEAM COPPER  
 SIDING  
 WINDOW TRIM: PAINTED  
 FOREST GREEN



NE ELEV.



SE ELEV.

8 of 8

CASE NO: CDP 62-04

EXHIBIT I

CHARLES & DALE PHELPS

WORKSHOP ELEVATIONS

SCALE: NONE



**COUNTY OF MENDOCINO**  
**DEPARTMENT OF PLANNING AND BUILDING SERVICES**  
790 SOUTH FRANKLIN • FORT BRAGG • CALIFORNIA • 95437

RAYMOND HALL, DIRECTOR  
Telephone 707-964-5379  
FAX 707-961-2427  
pbs@co.mendocino.ca.us  
www.co.mendocino.ca.us/planning

June 6, 2005

RECEIVED

JUN 13 2005

**NOTICE OF FINAL ACTION**

CALIFORNIA  
COASTAL COMMISSION

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

**CASE#:** CDP #62-04  
**OWNER:** Charles & Dale Phelps  
**AGENT:** Ed McKinley  
**REQUEST:** Remove existing 1,805 sq. ft. residence using portions for new 621 sq. ft. workshop and 707 sq. ft. guest cottage and art studio. Construct new 2,259 sq. ft. residence and 672 sq. ft. detached garage with a 625 sq. ft. porte cochere in between. Total interior floor area equals 4,259 sq. ft. Maximum building height above average natural grade equals 21 feet-5 inches. Additional development includes LPG tank, generator, solar panels, new and relocated underground utility lines, stormwater infiltration pits, curtain drain, septic tank and leach field, additions to driveway, terrace, paths, utility screen fence, and dog pen.

**LOCATION:** In the coastal zone, on a bluff-top lot, 5+- miles southeast of Point Arena, on the southwest side of Hwy 1, ¼+- mile southeast of its intersection with Iverson Road; at 30250 S Hwy 1; Assessor's Parcel Number 142-031-11.

**PROJECT COORDINATOR:** Charles N. Hudson

**HEARING DATE:** May 26, 2005

**APPROVING AUTHORITY:** Coastal Permit Administrator

**ACTION:** Approved with Conditions.

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

The project was not 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. 4

APPEAL NO.

A-1-MEN-05-029

(PHELPS)

NOTICE of FINAL ACTION

(Page 1 of 18)

COASTAL PERMIT ADMINISTRATOR ACTION SHEET

CASE#: CDP 62-04 HEARING DATE: 5/26/05

OWNER: Phelps

ENVIRONMENTAL CONSIDERATIONS:

☒ Categorically Exempt

☐ Negative Declaration

☐ EIR

FINDINGS:

☒ Per staff report

☐ Modifications and/or additions

ACTION:

☒ Approved

☐ Denied

☐ Continued \_\_\_\_\_

CONDITIONS:

☒ Per staff report

☐ Modifications and/or additions

Ray Hall  
Signed: Coastal Permit Administrator

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**COUNTY OF MENDOCINO**  
**DEPARTMENT OF PLANNING AND BUILDING SERVICES**  
790 SOUTH FRANKLIN • FORT BRAGG • CALIFORNIA • 95437

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MAY 16 2005

CALIFORNIA  
COASTAL COMMISSION

May 13, 2005

**PUBLIC NOTICE OF PENDING ACTION**  
**STANDARD COASTAL DEVELOPMENT PERMIT**

The Mendocino County Coastal Permit Administrator, at a regular meeting to be held Thursday, May 26, 2005 in the Planning and Building Services Conference Room, 790 South Franklin Street, Fort Bragg, at 10:00 a.m. or as soon thereafter as the item may be heard, will hear the below described project that is located in the Coastal Zone.

**CASE #** CDP #62-04  
**DATE FILED:** 7/16/04  
**OWNER:** Charles and Dale Phelps  
**AGENT:** Ed McKinley  
**REQUEST:** Remove existing 1,805 sq. ft. residence using portions for new 621 sq. ft. workshop and 707 sq. ft. guest cottage and art studio. Construct new 2,259 sq. ft. residence and 672 sq. ft. detached garage with a 625 sq. ft. porte cochere in between. Total interior floor area equals 4,259 sq. ft. Maximum building height above average natural grade equals 21 feet-5 inches. Additional development includes LPG tank, generator, solar panels, new and relocated underground utility lines, stormwater infiltration pits, curtain drain, septic tank and leach field, additions to driveway, terrace, paths, utility screen fence, and dog pen.  
**LOCATION:** In the coastal zone, on a bluff-top lot, 5+- miles southeast of Point Arena, on the southwest side of Hwy 1, ¼+- mile southeast of its intersection with Iverson Road; at 30250 S Hwy 1; Assessor's Parcel Number 142-031-11.  
**PROJECT COORDINATOR:** Charles N. Hudson

As you are an adjacent property owner and/or interested party, you are invited to appear at the hearing, or to direct written comments to this office at the above address. If you would like to be notified of the Coastal Permit Administrator's action, please submit a written request to this office. All correspondence should contain reference to the above noted case number.

The decision of the Coastal Permit Administrator shall be final unless a written appeal is submitted to the Board of Supervisors with a filing fee within 10 calendar days thereafter. If appealed, the decision of the Board of Supervisors to approve the project shall be final unless appealed to the Coastal Commission in writing within 10 working days following Coastal Commission receipt of a Notice of Final Action on this project.

If you challenge the above case in court, you may be limited to raising only those issues described in this notice or that you or someone else raised at the public hearing, or in written correspondence delivered to the Coastal Permit Administrator at or prior to, the public hearing.

Additional information regarding the above noted case may be obtained by calling the Planning and Building Services Department at 964-5379, Monday through Friday.

Raymond Hall, Coastal Permit Administrator

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MAY 28 2005

STAFF REPORT FOR  
STANDARD COASTAL DEVELOPMENT PERMIT

CALIFORNIA  
COASTAL COMMISSION

CDP# 62-04  
May 26, 2005  
CPA-1

**OWNER:** Charles and Dale Phelps  
3326 Clover Street  
Pittsford, New York 14534

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

**REQUEST:** Remove existing 1,805 sq. ft. residence using portions for new 621 sq. ft. workshop and 707 sq. ft. guest cottage and art studio. Construct new 2,259 sq. ft. residence and 672 sq. ft. detached garage with a 625 sq. ft. porte cochere in between. Total interior floor area equals 4,259 sq. ft. Maximum building height above average natural grade equals 21 feet-5 inches. Additional development includes LPG tank, generator, solar panels, new and relocated underground utility lines, stormwater infiltration pits, curtain drain, septic tank and leach field, additions to driveway, terrace, paths, utility screen fence, and dog pen.

**LOCATION:** In the coastal zone, on a bluff-top lot, 5± miles southeast of Point Arena, on the southwest side of Hwy 1, ¼± mile southeast of its intersection with Iversen Road; at 30250 S Hwy 1; Assessor's Parcel Number 142-031-11.

**APPEALABLE AREA:** Yes, highly scenic, west of first public road.

**PERMIT TYPE:** Standard

**TOTAL ACREAGE:** 2.55± acres

**GENERAL PLAN:** RR-5 [RR-2]

**ZONING:** RR:L-2

**EXISTING USES:** Residential

**ADJACENT ZONING:** North, east & west: RR:L-2  
South: Ocean

**SURROUNDING LAND USES:** North, east & west: Residential  
South: Ocean

**SUPERVISORY DISTRICT:** 5

**ENVIRONMENTAL DETERMINATION:** Categorically exempt – Class 3(a).

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**STAFF REPORT FOR  
STANDARD COASTAL DEVELOPMENT PERMIT**

**CDP# 62-04  
May 26, 2005  
CPA-2**

**OTHER RELATED APPLICATIONS:** Septic Permit ST 23396 is being held pending approval of this application.

**PROJECT DESCRIPTION:** The site is presently developed with a 1,805 square foot single family residence with an attached carport. Other existing improvements include a driveway, a well, a pump house, a water tank, and a septic tank and leach field sewage disposal system.

The existing residence is to be removed, with portions of it to be relocated on the site and converted to accessory buildings. A new 2,259 square foot one-bedroom, one-and-one-half-bath, single story, single family residence connected to a 672 square foot detached garage by a 625 square foot porte cochere is to be constructed on the approximate site of the existing residence. A 460 square foot deck and stair is proposed on the south side, facing the ocean. The new residence will have a maximum height above the average natural grade of 21 feet 5 inches.

The master bedroom and den from the existing house will be used to form portions of a new 707 square foot building containing a 406 square foot guest cottage and a 301 square foot art studio. The building will have a maximum height above average natural grade of 13 feet 10 inches.

The living/dining room from the existing house will be used to form a new 621 square foot workshop with a maximum height above average natural grade of 15 feet 7 inches.

The total interior floor area will equal 4,259 square feet. The three structures are to have crimped seam copper siding, copper shingle roofing, forest green wood trim, and dark colored window frames and doors. Additional proposed development includes an LPG tank, a generator, a pad-mount transformer, solar panels on the residence roof, new and relocated underground utility lines, two stormwater infiltration pits, a curtain drain, a septic tank, an aerobic treatment tank, an effluent pump tank, a new aerobic drip leach field, driveway alterations, paths, a utility screen fence, and a dog pen.

**LOCAL COASTAL PROGRAM CONSISTENCY RECOMMENDATION:** The proposed project is consistent with the applicable goals and policies of the Local Coastal Program as described below.

**Land Use:** The parcel is classified on the Coastal Plan Map as Rural Residential Five Acres Minimum with an alternate density of Two Acres Minimum (RR-5 [RR-2]). The Rural Residential Two Acres Minimum zone is applied to by virtue of the fact that the parcel is less than 4 acres and cannot be further divided. The proposed single family residence and associated development are permitted uses within the Rural Residential Zoning District, and are consistent with the Rural Residential land use classification.

The floor plan for the guest cottage shows a counter and sink within the living area. Section 20.308.050(G)(I) of the Code prohibits a kitchen within a guest cottage. In response to correspondence between staff and the applicant's agent, Ed McKinley, a letter dated October 7, 2004 was submitted stating that the counter and sink in the living area of the guest cottage are deleted from the application. To emphasize County Code requirements that a guest cottage may not contain a kitchen and cannot be used as an independent dwelling unit or be rented separately from the primary residence, Special Condition Number 1 is recommended.

The required setbacks for a parcel less than five acres in an RR:L-2 zone are 20 feet from front and rear property lines, and 6 feet from side property lines. A corridor preservation setback of 40 feet would apply along Highway 1, resulting in a front yard setback of either 60 feet from the highway corridor centerline

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**STAFF REPORT FOR  
STANDARD COASTAL DEVELOPMENT PERMIT**

**CDP# 62-04  
May 26, 2005  
CPA-3**

or 20 feet from the property line, whichever is greater. As shown on the Site Plan, the structures comply with setbacks required by the County Zoning Code.

The site is within a designated highly scenic area, therefore the height limit is 18 feet above average natural grade, unless an increase in height would not affect public views to the ocean or be out of character with surrounding structures. The existing residence does not obstruct any views of the ocean from Highway 1 due to its distance from the highway and the number of trees between the highway and the site. The proposed 21 foot-5 inch height of the residence complies with the height limit. The guest cottage/art studio and the workshop are less than 18 feet in height.

Maximum lot coverage for a lot between 2 and 5 acres in size in an RR zone is 15%. Lot coverage is the percentage of the gross lot area covered by structures, including roads. The lot is approximately 2.55 acres, or 111,078 square feet. The Site Plan shows approximately 11,706 square feet of coverage, or 10.5%. The project complies with lot coverage limits.

**Public Access:** The parcel is a bluff-top lot west of the first public road, but does not present any opportunity for public shoreline access due to the steep bluff face. The site is not designated as an access location on the County's Coastal Plan Maps and there is no indication of possible prescriptive access. The proposed development will not interfere with any opportunity for access to the shoreline.

**Hazards:** The parcel is an ocean-front lot with the buildable portion about 70 feet above sea level. The parcel is in an area where the shoreline runs nearly east and west, with the ocean to the southwest.

Section 20.500.015 (A) (2) of the Mendocino County Coastal Zoning Code states:

*In areas of known or potential geologic hazards such as shoreline and blufftop lots and areas delineated on the hazard maps, a geologic investigation and report, prior to development approval, shall be required. The report shall be prepared by a licensed engineering geologist or registered civil engineer pursuant to the site investigation requirements in Chapter 20.532.*

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

*New structures shall 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). New development shall be set back from the edge of bluffs a distance determined from information derived from the required geological investigation...*

Policy 3.4-8 of the Mendocino County Coastal Element states:

*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.*

Policy 3.4-9 of the Mendocino County Coastal Element states:

*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.*

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**STAFF REPORT FOR  
STANDARD COASTAL DEVELOPMENT PERMIT**

**CDP# 62-04  
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A Geotechnical Investigation was conducted by BACE Geotechnical and a report prepared dated June 15, 2004, evaluating the soil and rock conditions at the parcel with respect to the feasibility and design of the planned residence. As stated in the report, BACE concludes that the site is geotechnically suitable for the planned residential construction. The report states that the main geotechnical constraints that should be considered in the design and construction of this project include bluff stability, strong seismic shaking from future earthquakes, fault rupture hazard, settlement, and erosion control. Based on an estimated average retreat rate of 3.2 inches per year, and a safety factor of 1.5, BASE recommends a bluff setback from the southwest bluff of 30 feet. Based on an estimated average retreat rate of 2.6 inches per year, and a safety factor of 1.5, BASE recommends a bluff setback of 25 feet from the northwest bluff. Similarly a 19 foot setback was recommended from the drainage swale bluff to the southeast of the house site. BASE found the planned house location, as drawn by Ashokan Architecture, to be in conformance the recommended setbacks. BASE found the risks due to fault rupture hazard, ground shaking, and settlement, would be low.

The BASE report contains recommendations for erosion control, grading, foundations, seismic design, soil preparation for on-grade slabs, utility trenches, and drainage. Of particular note, BASE recommends that concentrated surface flows and subsurface seepage should be intercepted and diverted away from the building foundations and the top and toe of cut and fill slopes. Concentrated runoff, including water from roof gutter downspouts, should be dispersed onto the ground surface on the inland side of the residence. Drain water should be discharged to the south end of the property away from the bluff and the leach field area. BASE also recommends that drain outlets into the nearby swales should be located within densely vegetated areas, or should be protected from erosion by riprap.

Special Condition Number 2 is recommended to require that the recommendations in the Geotechnical Investigation be incorporated into the design and construction of the proposed structures and associated development.

On blufftop parcels on which new development is within 125 feet of the bluff, it is County policy to require recordation of a deed restriction prohibiting the construction of seawalls, and requiring that the structures be removed from the property if threatened by bluff retreat. The restriction also requires that the landowner be responsible for any clean up associated with portions of the development that might fall onto a beach. Because the proposed new residence is less than 125 feet from the bluff, the deed restriction is being recommended as Special Condition Number 3.

The property is in an area that has a moderate fire hazard severity rating as determined by the California Department of Forestry and Fire Prevention. The Department of Forestry has submitted recommended conditions of approval (CDF# 502-04) for address standards, driveway standards, and defensible space standards. Special Condition Number 4 is recommended to achieve compliance with the fire safe standards recommended by the Department of Forestry.

The Mendocino County Air Quality Management District reviewed the application for possible air quality impacts, and commented that the applicant would need to complete an Asbestos Demolition/Renovation Notification and Release Form (ARDN 2791). Standard Condition Number 4 requires that all permits required by other agencies be obtained.

**Grading, Erosion and Runoff:** Increased stormwater runoff may be expected from the additional roof area and driveway surface. In the Geotechnical Investigation prepared for the project by BACE Geotechnical, it is recommended that runoff should managed to avoid foundation or slope stability

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STAFF REPORT FOR  
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CDP# 62-04  
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CPA-5

problems or erosion. Special Condition Number 2 requires that the recommendations in the Geotechnical Investigation be incorporated into the design and construction of the proposed structures and associated development.

**Visual Resources:** The parcel is located in an area designated as "highly scenic" on the County's Land Use Maps. The existing house was built in 1966, prior to any requirements for bluff setback, and was built well out onto the point at the southwesterly (seaward) tip of the parcel. Current bluff setback provisions require that the new house be about five feet farther back from the bluff edge than the existing house, although it is still well out onto the point.

Exterior building materials and colors are specified as follows:

|                  |   |
|------------------|---|
| Roofing:         | 8" square copper shingles, naturally weathered.           |
| Siding:          | 36" wide crimped seam copper siding, naturally weathered. |
| Trim:            | Wood, painted Forest Green.                               |
| Chimney:         | Copper clad with stone top, naturally weathered.          |
| Window frames:   | Vinyl, wood, or fiberglass, dark color.                   |
| Exterior doors:  | Dark color.   |
| Garage door:     | Hidden from view.   |
| Exterior lights: | Shielded downcast fixtures.                               |

Coastal Plan Policy 3.5-1 of the Mendocino County Coastal Element states:

*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. New development in highly scenic areas designated by the County of Mendocino Coastal Element shall be subordinate to the character of its setting.*

Coastal Plan Policy 3.5-3 states, in part:

*Any development permitted in [designated highly scenic] areas shall provide for the 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.*

*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. Variances from this standard may be allowed for planned unit development that provides clustering and other forms of meaningful visual mitigation. New development should be subordinate to the natural setting and minimize reflective surfaces.*

Section 20.504.015 (C) (2) of the Coastal Zoning Code states:

*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*

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STAFF REPORT FOR  
STANDARD COASTAL DEVELOPMENT PERMIT

CDP# 62-04  
May 26, 2005  
CPA-6

*increase in height would not affect public views to the ocean or be out of character with surrounding structures.*

Section 20.504.015 (C) (3) of the Coastal Zoning Code states:

*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.*

Land in the vicinity of the applicant's parcel is forested with evergreen trees that nearly completely obscure any views to the ocean from the highway. In the vicinity of the applicant's parcel, some residences in the area, closer to the highway, can be seen through the trees, but are not clearly in view. The existing residence on the applicant's parcel can be seen from the highway, through a picket fence as one passes in front of the parcel, but it is not noticeably visible. In order to see it, one must be looking perpendicularly to the highway in an area where one's attention is directed straight ahead by the trees along the road, and upcoming turns when traveling in either direction. The new residence, with its copper exterior, once it weathers to brown and green tones, will be difficult to see even for someone looking for it. It will not be noticed by most motorists. The residence will be visible from the cul-de-sac at the end of Iversen Point Road, between the existing houses in Iversen Point Subdivision, but it will be partly screened by the existing trees on the parcel. Only about one quarter of the house will extend seaward of the trees, and it will be set back about five feet from the location of the existing house.

The roof ridges over the majority of the house have a height above average natural grade of about 16 feet-6 inches. The ridge over the porte cochere is about one foot higher. Only the conical roof over the 14 foot diameter cupola at the intersection of the three wings of the residence extends to the height of 21 feet-5 inches. Given the limited locations from which the house is visible, and the distance between these locations and the site, the small portion of the house that exceeds 18 feet in height will not affect public views of the ocean.

Special Condition Number 5 is recommended to require that building materials and colors will not be changed without prior approval of the Coastal Permit Administrator.

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.*

The application and drawings specify either ceiling or wall-mounted shielded downcast exterior lighting fixtures. Special Condition Number 6 is recommended to emphasize that all exterior lights must be shielded or located so that only non-glaring reflected light is visible from beyond the parcel boundaries.

Section 20.504.015(C) (12) of the Coastal Zoning Code states:

*Power distribution lines shall be placed underground in designated "highly scenic areas" west of Highway 1 and in new subdivisions. East of Highway 1, power lines shall be placed below ridgelines if technically feasible.*

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STAFF REPORT FOR  
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CDP# 62-04  
May 26, 2005  
CPA-7

The site plan indicates that the utilities serving the existing residence are underground, and that service to the proposed accessory structures will also be underground.

With the recommended conditions, the project will comply with visual resource policies of the Coastal Plan.

**Natural Resources:** The California Natural Diversity Database Map for the project area shows that the parcel may provide habitat for the supple daisy (*Erigeron supplex*). Mary Rhyne, Botanical Surveyor, visited the site on June 12 and 26, 2002, and submitted a report dated June 28, 2002. Ms. Rhyne's report states that there is no riparian vegetation along the drainage ditch along the southeast side of the parcel, except for three young umbrella plants (*Cyperus alternifolius*) in the ditch next to Highway 1 and at the outlet of the culvert under the road paralleling Highway 1. [*Cyperus alternifolius* is a non-native sedge from the swamps of Madagascar, sometimes grown as an ornamental, and prefers to grow in wet soil.]

Ms. Rhyne's report relates information obtained from Eric Beihl that the natural drainage features on the site have been altered as a result of a Caltrans culvert discharging water onto the parcel, and efforts by previous owners to place fill and provide ditches to channel the runoff along the parcel boundaries. Mr. Beihl also stated that the parcel has been altered from its natural state by the planting of non-native trees, and later by removal of some trees in an attempt to recreate a meadow-like opening in the center of the parcel.

In a separate letter dated September 26, 2004, Ms. Rhyne states specifically that there are no *Erigeron supplex* on the property.

After the agenda had been made up and distributed for the May 26, 2005 Coastal Permit Administrator hearing, but before this staff report for CDP 62-04 had been completed, a copy of the minutes of the February 3, 2005 Gualala Municipal Advisory Council (GMAC) meeting was received. The minutes contain the following paragraph regarding botanical resources:

Council Member Bailey walked the property Friday, 28 January with two botanists and immediately found three plants considered rare or habitat supporting the Silver Spot Butterfly, a much endangered coastal specie. She indicated on the map the areas where the plants were found. At the time the accompanying botanical report was written, June 2002, some of these plants were not on the rare or endangered list. One was the coast morning glory (*Calystegia purpurata*, ssp. *saxicola*); there was checkerbloom (*Sidalcea malachroides*), and lotus formisissimus, the latter habitat to the butterfly. She felt the County would definitely want to know of the presence of this plant. She noticed the botanist doing the report only looked at the property once and not at the usual three bloom-times, early spring (March), mid summer (June), and early fall (September). She stated the *Sidalcea malachroides* looks very much like the *Sidalcea purpurata*, which is even rarer than the first, and needs to be identified if present. It would not have been blooming in June when the survey was taken. She would like to see a second survey done and marker flags placed so the County would know what plants were present on the property, where they were located, and any disturbance of these location-areas could be avoided during construction. The County may want a protection zone placed around some of these location areas. The owners seemed ecologically minded and she was sure they would abide by any requests the County made regarding these plants.

The GMAC minutes for the Phelps project concluded, stating that a motion was carried unanimously "...that the project be approved under the conditions that: 1) another botanical survey be done in the usual

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STAFF REPORT FOR  
STANDARD COASTAL DEVELOPMENT PERMIT

CDP# 62-04  
May 26, 2005  
CPA-8

way, three times over a nine month period, and; 2) any plants found to be of special interest be taken into account during construction."

After receiving the GMAC minutes, staff spoke with Mary Rhyne. She stated that she was on the site twice, on June 12 and 26, 2002, as stated in her report. She also said that the morning glory she found on the site and noted in her report was the unlisted western morning glory (*Calystegia occidentalis*), and that it was located on the bluff.

Staff spoke with Jon Thompson, one of the botanists that had visited the site with Ms. Bailey. Mr. Thompson stated that he had seen maple-leaved checkerbloom (*Sidalcea malachroides*) in the area of mowed grass where the septic leach field is to be located, and coastal bluff morning glory (*Calystegia purpurata*, ssp. *saxicola*) in the ditch along the southeasterly side of the property. Both of these plants are CNPS List 1B plants, rare, threatened or endangered in California.

Staff spoke with Ed McKinley, the agent representing the Phelps. Mr. McKinley had been present at the GMAC meeting, and stated that he had engaged the services of Susan Morrison, botanist, with the firm of kpff Consulting Engineers, to perform additional botanical work on the site. On May 18, 2005, Ms. Morrison submitted the following comments:

Kpff has been asked by the Phelps to respond to the Gualala Municipal Advisory Council's (GMAC) concerns voiced at the hearing of February 3<sup>rd</sup>, 2005. Several points were made at the meeting that warrant botanical clarification. On page 9 of the meeting notes, Council Member Bailey stated that on January 28<sup>th</sup>, she and two botanists (unnamed) found three plants that are "considered rare, or habitat supporting the Silver Spot butterfly, a much endangered coastal specie[sic]." Further in the meeting notes, the Council member Bailey stated that additional plant species were discovered that were not listed as rare or endangered at the time the 2002 botanical survey was conducted.

The council named "coastal morning glory (*calystegia purpurata* spp. *saxicola*), chekerebloom [sic] (*sidalcia malachroides*)", "lotus formisissumus" and "*sidalcia purpurata*". The council member noted that the survey conducted by Mary Rhyne had been completed in June of 2002, and not in the usual "three bloom-times, early spring (March), mid summer (June) and early fall (September). The council member also noted "*sidalcia malachroides* looks very much like the *sidalcia purpurata*" and was not in bloom during the June site visit.

Upon review of Ms. Rhynes botanical survey the June site visit would have incorporated the blooming window of the coastal bluff morning glory (*Calystegia purpurata* ssp. *saxicola*), a species that is known to bloom from May through August, (please see attached listing in Appendix A). According to the floristic species list in Ms. Rhynes report, the morning glory species present is *Calystegia occidentalis* or western morning glory, not a listed species warranting protection. The council also stated that "*sidalcia malachroides*" was not in bloom during the June site visit. According to the California Native Plant Society's Inventory of Rare and Endangered Plants (online edition, v6-05b) the blooming period for maple-leaved checkerbloom (*Sidalcea malachroides*) has a blooming window of April through August (also attached). Maple-leaved checkerbloom would have been in bloom during Ms. Rhynes site visit. "*Sidalcea purpurata*" is not a species of *Sidalcea* listed in the current Jepson manual. Kpff believes the council may have intended to cite the purple stemmed checkerbloom (*Sidalcea malviflora* ssp. *purpurea*) and not "*sidalcia purpurata*". The purple stemmed checkerbloom is a recently listed sub-species of *Sidalcea malviflora* and is not readily found. The species has been recorded in the

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STAFF REPORT FOR  
STANDARD COASTAL DEVELOPMENT PERMIT

CDP# 62-04  
May 26, 2005  
CPA-9

area located within the Point Arena and Gualala USGS quadrangles. The blooming window for this sub-species is May. Kpff surveyed for checkerbloom in April and the beginning of May. Common bluff checkerbloom *Sidalcea malvaeflora* is present at this location and as of the third of May, no subspecies of checkerbloom has been identified.

The council also refers to "*lotus formosissimus*" as habitat to the Silver Spot Butterfly and as a recent addition to the Rare and Endangered species list. Kpff believes the council may have intended to refer to the *Lotus formosissimus*, and not *lotus formosissimus*. According to the above mentioned CNPS Inventory of Rare and Endangered plants, *Lotus formosissimus* is now listed as a list 4 species. The *lotus* is present on the Phelps property and to date, seven plants have been located. The rare butterfly associated with *Lotus formosissimus* is the Lotus Blue Butterfly (*Lycaeides argyrognomon lotis*) and not the Silver Spot Butterfly (please see the attachment located in Appendix A). The bloom date for this plant is March through July and the plant was noted in Mary Rhyne's report dated June of 2002. - where

[Ms. Morrison's letter was accompanied by copies of pages from the California Native Plant Society On-line Inventory of Rare and Endangered Plants - 6<sup>th</sup> edition for coastal bluff morning glory (*Calystegia purpurata* ssp. *saxicola*), purple-stemmed checkerbloom (*Sidalcea malviflora* ssp. *purpurea*), maple-leaved checkerbloom (*Sidalcea malachroides*), and harlequin lotus (*Lotus formosissimus*), and also a page from the U. S. Fish & Wildlife Service website for the Lotis blue butterfly (*Lycaeides argyrognomon lotis*), which are on file in the Fort Bragg office of the Planning and Building Services Department.]

The botanical report prepared by Mary Rhyne, and the subsequent information submitted by Susan Morrison support a determination that the project will have no impact on natural resources. The statement in the GMAC minutes and the telephone conversation between staff and Jon Thompson, that List 1B plants were found on the site is not borne out by subsequent investigations by Ms. Morrison, who was requested to inspect the site in response to the information presented at the GMAC meeting. Based on the presence of written reports from two different botanists stating that sensitive plant species were not found on the site, and the fact that the site has been substantially modified from its natural state by the addition of fill, the modification of site drainage, and the establishment of non-native vegetation on the site, staff recommends that the project be found to have no adverse impact on natural resources.

**Archaeological/Cultural Resources:** The project was reviewed by the Northwest Information Center of the California Historical Resources Inventory at Sonoma State University. The Information Center responded that the project area has the possibility of containing unrecorded archaeological sites and recommended a study. The application was reviewed by the Mendocino County Archaeological Commission on December 8, 2004, which determined that no survey was required. Standard Condition Number 8 advises the applicant of the requirements of the County's Archaeological Ordinance, which establishes procedures to be followed in the event that archaeological or cultural materials are unearthed during site preparation or construction activities.

**Groundwater Resources:** The site is located within an area mapped as a Critical Water Resources area (CWR) as shown in the 1982 Coastal Groundwater Study prepared by the Department of Water Resources. Water is to be provided by an existing well drilled in 1983. Division of Environmental Health records indicate that a permit was obtained for the well but that it was never finalized. According to DEH staff, no remedial action is required because it is not possible to issue a final inspection for a well drilled so long ago.

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**STAFF REPORT FOR  
STANDARD COASTAL DEVELOPMENT PERMIT**

**CDP# 62-04  
May 26, 2005  
CPA-10**

The application proposes a new aerobic sewage disposal system consisting of a 1,200 gallon septic tank, an aerobic treatment tank, a 1,200 gallon pump tank, and a 35 by 50 foot aerobic drip leach field. Jim Ehlers of the Division of Environmental Health commented that the septic system can be approved by Environmental Health.

No adverse impacts to groundwater resources are anticipated.

**Transportation/Circulation:** The project will not increase traffic on local or regional roadways because the request is to replace an existing residence with a new residence. Caltrans had no comment on the project. There is an existing paved road approach that serves several parcels in the vicinity, and no work within the right-of-way is specified in the application. No adverse impacts are anticipated.

**Zoning Requirements:** The project complies with the zoning requirements for the Rural Residential Zoning District set forth in Chapter 20.376, and with all other zoning requirements of Division II of Title 20 of the Mendocino County Code.

**PROJECT FINDINGS AND CONDITIONS:** Pursuant to the provisions of Chapter 20.532 and Chapter 20.536 of the Mendocino County Code, staff recommends that the Coastal Permit Administrator approve the proposed project, and adopts the following findings and conditions.

**FINDINGS:**

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.

**STANDARD CONDITIONS:**

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**STAFF REPORT FOR  
STANDARD COASTAL DEVELOPMENT PERMIT**

**CDP# 62-04  
May 26, 2005  
CPA-11**

1. This action shall become final on the 11<sup>th</sup> 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 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. This permit is 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.
6. This permit shall be subject to revocation or modification upon a finding of any one or more of the following:
  - a. The permit was obtained or extended by fraud.
  - b. One or more of the conditions upon which the permit was granted have been violated.
  - c. The use for which the permit was granted is conducted so as to be detrimental to the public health, welfare or safety, or to be a nuisance.
  - d. A final judgment of a court of competent jurisdiction has declared one or more conditions to be void or ineffective, or has enjoined or otherwise prohibited the enforcement or operation of one 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.

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**STAFF REPORT FOR  
STANDARD COASTAL DEVELOPMENT PERMIT**

**CDP# 62-04  
May 26, 2005  
CPA-12**

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 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. Use of the guest cottage shall remain consistent with the provisions of Section 20.308.050(G)(I) and 20.308.070(K)(B) of the Coastal Zoning Code, in that it shall not contain facilities, either permanent or temporary and portable, for the cooking or preparation of food, it shall not be used as an independent dwelling unit, and it shall only be used by the occupants of the primary dwelling on the property or their guests, without compensation.
2. The plans submitted with the application for the building permit shall incorporate, or specify compliance with, the recommendations for the design and construction of the proposed structures and associated development contained in the Geotechnical Investigation prepared by BACE Geotechnical, dated June 15, 2004.
3. Prior to the issuance of the Coastal Development Permit, the landowners, (Charles and Dale Phelps, or as otherwise shown on the Official Records found in Mendocino County Recorder's office), shall execute and record a deed restriction, in a form and content acceptable to the Coastal Permit Administrator providing that:
  - a. The landowner understands that the site may be subject to extraordinary geologic and erosion hazard and the landowner assumes the risk from such hazards;
  - b. The landowner agrees to indemnify and hold harmless the County of Mendocino, its successors in interest, advisors, officers, agents and employees against any and all claims, demands, damages, costs, and expenses of liability (including without limitation attorneys' fees and costs of any 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;
  - c. The landowner agrees that any adverse impacts to the property caused by the permitted project shall be fully the responsibility of the applicant;
  - d. The landowner shall not construct any bluff or shoreline protective devices to protect the improvements in the event that these structures are subject to damage, or other erosional hazards in the future;
  - e. The landowner shall remove the development when bluff retreat or soil failure reaches the point at which the structure is threatened. In the event that the proposed structures become irreparably damaged before they can be removed from the blufftop, the landowner shall remove all recoverable debris associated

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**STAFF REPORT FOR  
STANDARD COASTAL DEVELOPMENT PERMIT**

**CDP# 62-04  
May 26, 2005  
CPA-13**

with these structures and lawfully dispose of the material in an approved disposal site. The landowner shall bear all costs associated with such removal;

- f. The document shall run with the land, bind all successors and assignees, and shall be recorded free of all prior liens and encumbrances, except for tax liens.
4. The applicant shall comply with those recommendations in the California Department of Forestry Conditions of Approval (CDF# 502-04) or other alternatives acceptable to the Department of Forestry. Prior to the final inspection of the building permit, written verification shall be submitted from the Department of Forestry to the Department of Planning and Building Services that this condition has been met to the satisfaction of the Department of Forestry.
5. Any change in approved colors or materials shall be subject to the review and approval of the Coastal Permit Administrator for the life of the project.
6. All exterior lighting fixtures shall be designed, located and/or shielded so that only reflected, non-glaring light is visible from beyond the parcel boundaries.

Staff Report Prepared By:

May 18, 2005  
Date

Charles N. Hudson  
Charles N. Hudson  
Senior Planner

Attachments: Exhibit A Location Map  
Exhibit B Existing Site Plan  
Exhibit C Proposed Site Plan  
Exhibit D Residence Floor Plan  
Exhibit E Garage Floor Plan  
Exhibit F Residence Elevations  
Exhibit G Guest Cottage and Workshop Floor Plans  
Exhibit H Guest Cottage Elevations  
Exhibit I Workshop Elevations

Appeal Period: Ten calendar days for the Mendocino County Board of Supervisors, followed by ten working days for the California Coastal Commission following the Commission's receipt of the Notice of Final Action from the County.

Appeal Fee: \$715.00 (For an appeal to the Mendocino County Board of Supervisors.)

**SUMMARY OF REFERRAL AGENCY COMMENTS:**

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**STAFF REPORT FOR  
STANDARD COASTAL DEVELOPMENT PERMIT**

**CDP# 62-04  
May 26, 2005  
CPA-14**

|                                   |  |
|-----------------------------------|--|
| Planning – Ukiah                  | No comment.  |
| Department of Transportation      | No comment.  |
| Environmental Health – Fort Bragg | The septic system shown in the CDP application may not be far enough upslope towards Hwy 1 as required, but the location can be resolved during the building permit process. DEH can issue septic permit upon approval of the CDP. |
| Building Inspection – Fort Bragg  | No comment.  |
| Assessor                          | No response.   |
| SSU                               | Study recommended.   |
| Caltrans                          | No comment.  |
| Coastal Commission                | No response.   |
| Air Quality Management District   | Needs to complete asbestos demolition notice form.   |
| South Coast Fire District         | No response.   |
| GMAC                              | Recommended approval with the conditions that additional botanical surveys be done, and any sensitive species found be taken into consideration during construction.   |
| Archaeological Commission         | No survey required.  |
| Friends of Schooner Gulch         | Development is too large. Visible from public road at Iversen Point and from Highway 1. Copper exterior is unacceptable.   |

**SUMMARY OF CORRESPONDENCE RECEIVED AS OF 5/16/05:**

Letter dated 8/24/04 from Eric Beihl, adjacent property owner: The parcel was formerly owned by Mr. Beihl's mother. In 1966, a subsequent owner built the existing house. From 1980 to 2000 Mr. Beihl managed the property for the owner as a vacation home rental. Mr. Beihl lists the following objections to the proposed development:

1. Additional structures beyond the main house and garage which could be used as separate rental units.
2. Sprawling nature of the development, which destroys the open meadow on the site.
3. New house too close to bluff edge. The cliff has lost about 25 feet in the last 40 years. The proposed location is also visually imposing on the beach.
4. New septic system and utility lines. The proposed septic system will disrupt the existing meadow, which has standing water after rainstorms. The existing system should be retained and the house moved east. Other utilities have been upgraded within the last 15 years and should be left undisturbed.
5. Time frame for the development. As proposed, the project will take years to complete and will cause much disturbance to the neighbors.

Note dated 10/11/04 from Eric Beihl, adjacent property owner: AP# 142-031-11 was grant deeded to the Nature Conservancy in 1974. It should be determined if deed restrictions are still applicable.

Letter dated 12/6/04 from Martha Beihl, adjacent property owner: No objection to the size of the house, even though it is larger than other houses in the vicinity, but strongly objects to turning the existing house into accessory buildings. Too much development.

Letter dated 12/28/04 from Eric Beihl, adjacent property owner: The Island Cove Board decision regarding Phelps' project should be considered deficient due to failure to notify adjacent property owners.

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**STAFF REPORT FOR  
STANDARD COASTAL DEVELOPMENT PERMIT**

**CDP# 62-04  
May 26, 2005  
CPA-15**

Petition received May 17, 2005, from Eric Beihl, with 29 signatures: "We the undersigned would prefer that the oceanfront development planned for 30250 S. Hwy. 1 (Phelps - 2 acres) be restricted to 1 house and 1 garage, and that no additional buildings be permitted."

Letter received May 18, 2005, from Susan Morrison, botanist: In response to the concerns expressed at the GMAC meeting when the project was considered, she has visited the site to look for sensitive plants reported to be present on the site, but did not find them.

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## CALIFORNIA COASTAL COMMISSION

NORTH COAST DISTRICT OFFICE

710 E STREET, SUITE 200

EUREKA, CA 95501

VOICE (707) 445-7833 FAX (707) 445-7877



## APPEAL FROM COASTAL PERMIT DECISION OF LOCAL GOVERNMENT

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

SECTION I. Appellant(s)

Name: ERIC SEHL

Mailing Address: 30250 S. HWY. 1

City: POINT ARENA, CA

Zip Code: 95463

Phone: 707.324.2474

SECTION II. Decision Being Appealed

1. Name of local/port government:

HUMBOLDT COUNTY, DEPT 02-04 (PHELPS)

2. Brief description of development being appealed:

CONSTRUCTION OF FOUR BUILDINGS OF 7000 SQFT., PLUS IMPROVEMENT OF  
 1000 SQFT., PLUS DENTAL SYSTEM OF 1000 SQFT., LANDSCAPE, IRRIGATION,  
 PLUS DRIVEWAYS, DECK, TERRACE, DOG PEN, PATIO-APPROPRIATE.

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

30250 S. HWY 1, POINT ARENA, CA. 95463  
 AP# 02-001-11 ON WEST SIDE OF HWY 1  
 1/2 MILE SOUTH OF PT. ARENA

4. Description of decision being appealed (check one.):

- ☐ Approval; no special conditions
- ☐ Approval with special conditions:
- ☒ Denial (AS SUBMITTED)

**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:

EXHIBIT NO. 5

APPEAL NO.

A-1-MEN-05-029

(PHELPS)

APPEAL

(Page 1 of 12)

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CALIFORNIA  
COASTAL COMMISSION

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

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

- ☒ Planning Director/Zoning Administrator  
☐ City Council/Board of Supervisors  
☐ Planning Commission  
☐ Other

6. Date of local government's decision: 5/26/05

7. Local government's file number (if any): CDP #65-04

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:

CHARLES AND DALE PHILIPS  
2304 CLOVER ST.  
PITTSFORD, NEW YORK 14504

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) LAURA OSTERMAN  
248 ELDFIELD DR.  
ANDERSON, IN. 46016

(5) ERIC BEAL  
30230 S. HWY 1  
ST. ARCHA, LA 70748

(2) PETER REINMULLER  
P.O. BOX 4  
ANDERSON, IN. 46016

(3) MARTHA BEAL  
P.O. BOX 1773  
ANDERSON, IN. 46016

(4) JULIE VERRAN, S.L.O.  
P.O. BOX 3  
ANDERSON, IN. 46016



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

**SECTION IV. Reasons Supporting This Appeal**

**PLEASE 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.
- 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.)
- This 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.

ATTACHED REMARKS

6/8/05

Brief remarks on proper grounds for an appeal.

1. Physical Access to shoreline. This was considered a mandatory requisite following the passage of the Coastal Act Prop. 20 in 1972. For some time now it has no longer been required.
2. Public Views. The development will be highly visible from Iversen Pt. road. The photo inside the brochure was taken in 1985 from that road.
3. The development is not compatible with the established physical scale of the area. Development and its infrastructure of driveways, paths, terraces, and aerobic septic system will take up nearly 75% of the land. Total interior floor area is twice the neighborhood standard, a very good criterion by which to evaluate proposed development.
4. Alteration of landforms. Development will require extensive drainage from buildings on a crumbling blufftop. See back photo on brochure.
5. Geologic setbacks are not sufficient in my experience of 45 years here. Cliff has lost nearly a foot a year since the early 1960's. When the house was built in 1966 the westward bluff extended about 35 feet from its present face.

Some extended remarks.

The plans show much development on an aggressive scale. Indeed This development will set precedent for scale in the neighborhood. It is both too big and too spread out. At 4259 interior square feet it is twice the neighborhood standard of about 1600 sq. ft. for a house plus 576 sq. ft. for a double garage. This project is in fact a compound,

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a sprawl of scattered buildings separated by wide intervals. There are four of these; a house of 2,259 sq. ft., a garage of 625 sq. ft., a shop of 621 sq. ft. and a guest house of 707 sq. ft. Altogether they consume the entire oceanfront side of this 2+ acre parcel, or about 50% of the land in developed area. In addition, there is to be an aerobic septic system of 1500 sq. ft. located in the center of the meadow east of the buildings themselves. Two of the accessory buildings, the shop and the guest house, are to be composed of the moved remnants of the old house with added portions.

The most serious objection to the sprawl of buildings is the destruction of natural habitat. I was caretaker for 25 years of this property. I trimmed the trees, burned the brush, mowed the grass, and took reservations for the Nature Conservancy for nature groups when they were given the land. The meadow is a natural and open area now full of wildlife. It must be preserved. The plan will develop at least 60% of this area directly or indirectly. Directly by the buildings themselves, indirectly by the infrastructure of drives, paths, and landscape that is not natural. Aerobic septic fields never do look natural. The leach area stays hummocky and the grass has an artificial green.

A second objection to the accessory buildings is their ideal location for rentals. They would be on prime ocean frontage and possess attractive privacy separation. While such rentals are not legal with our current zoning, nevertheless the law has proven unenforceable in our subdivision which currently has several such rentals. These buildings can be very easily retrofitted with the needed fixtures by any future owner. To permit them is to set up a future bed and breakfast industry.

and so while the size of the development is a problem, the much bigger problem is the sprawling nature of the buildings themselves. We are after all a subdivision whose average lot size is two acres. The compound being proposed has enough development for two separate parcels or one parcel of at least five acres.

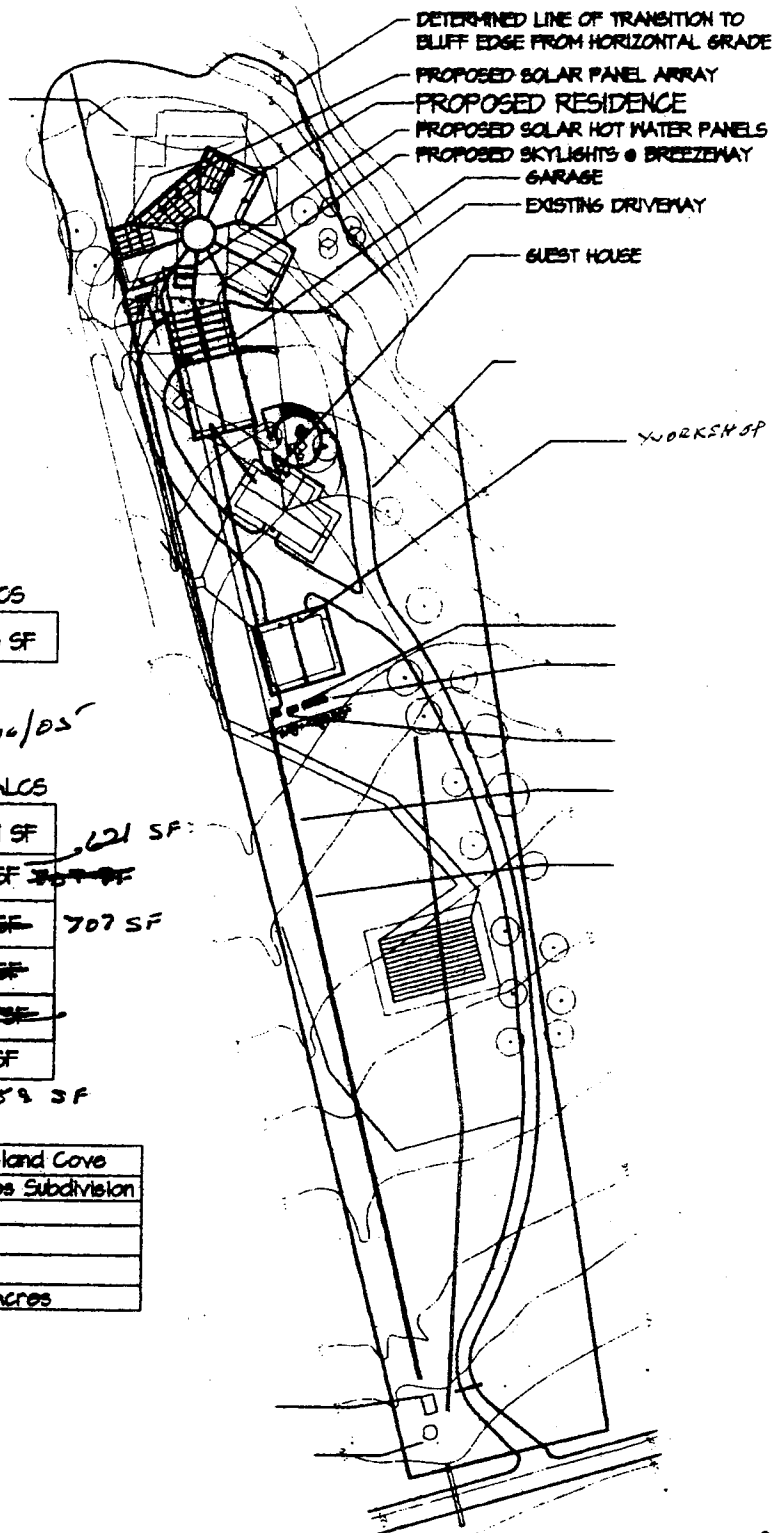
So what would be appropriate for this development? If the overall interior floor area were say cut by 30%, this would still amount to 3000 sq. ft. This allows for a house of nearly 2500 Sq. Ft. and a garage of 576 sq. ft. - well above the neighborhood average. It could be done by either remodeling the current house with appropriate additions, or demolishing it for new construction. Under no circumstances should the old house be moved a couple of hundred feet to make extra buildings. No more than one detached building, a simple garage, should be permitted. Guest quarters, shop-studio, should both be incorporated into these structures. Economize space, cluster the development and save open space and habitat. Keep all the area east of the current driveway loop free of development including a new septic system if required. (See Map) The owners will still have the headland for waterfront development, the parcel's major attraction. In exchange the meadow must be preserved as an open space natural area. This is a balanced approach and makes good ecological sense.

Finally, I want to say that this appeal is all about saving our coast from bad development. The planning director, Mr. Hall, has essentially drawn the permit conditions too narrowly, allowing for too much bad development. Rejection of this plan will be a victory for all of us as coast residents.

Sincerely,

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*Eric Fehl*



PLOT PLAN

#### EXISTING AREA CALCS

|           |         |
|-----------|---------|
| RESIDENCE | 1805 SF |
|-----------|---------|

REVISED 5/30/05

#### PROPOSED AREA CALCS

|                     |                          |
|---------------------|--------------------------|
| RESIDENCE           | 2259 SF                  |
| WORKSHOP            | <del>548 SF</del> 621 SF |
| GUEST HOUSE         | <del>436 SF</del> 707 SF |
| <del>APR-5110</del> | <del>260 SF</del>        |
| <del>TOTAL</del>    | <del>3300 SF</del>       |
| GARAGE              | 672 SF                   |

TOTAL 4259 SF

#### DATA TABLE

|             |                     |
|-------------|---------------------|
| Subdivision | #46 Island Cove     |
| Section     | Estates Subdivision |
| Block       | 142                 |
| Lot         | 091                 |
| Area        | 11                  |
|             | 2.55 Acres          |

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**ASHOKAN**  
ARCHITECTURE  
& PLANNING, PLLC



3780 Main Street  
Stone Ridge, New York 12484  
Ph (845) 687-9829  
Fax (845) 687-2516

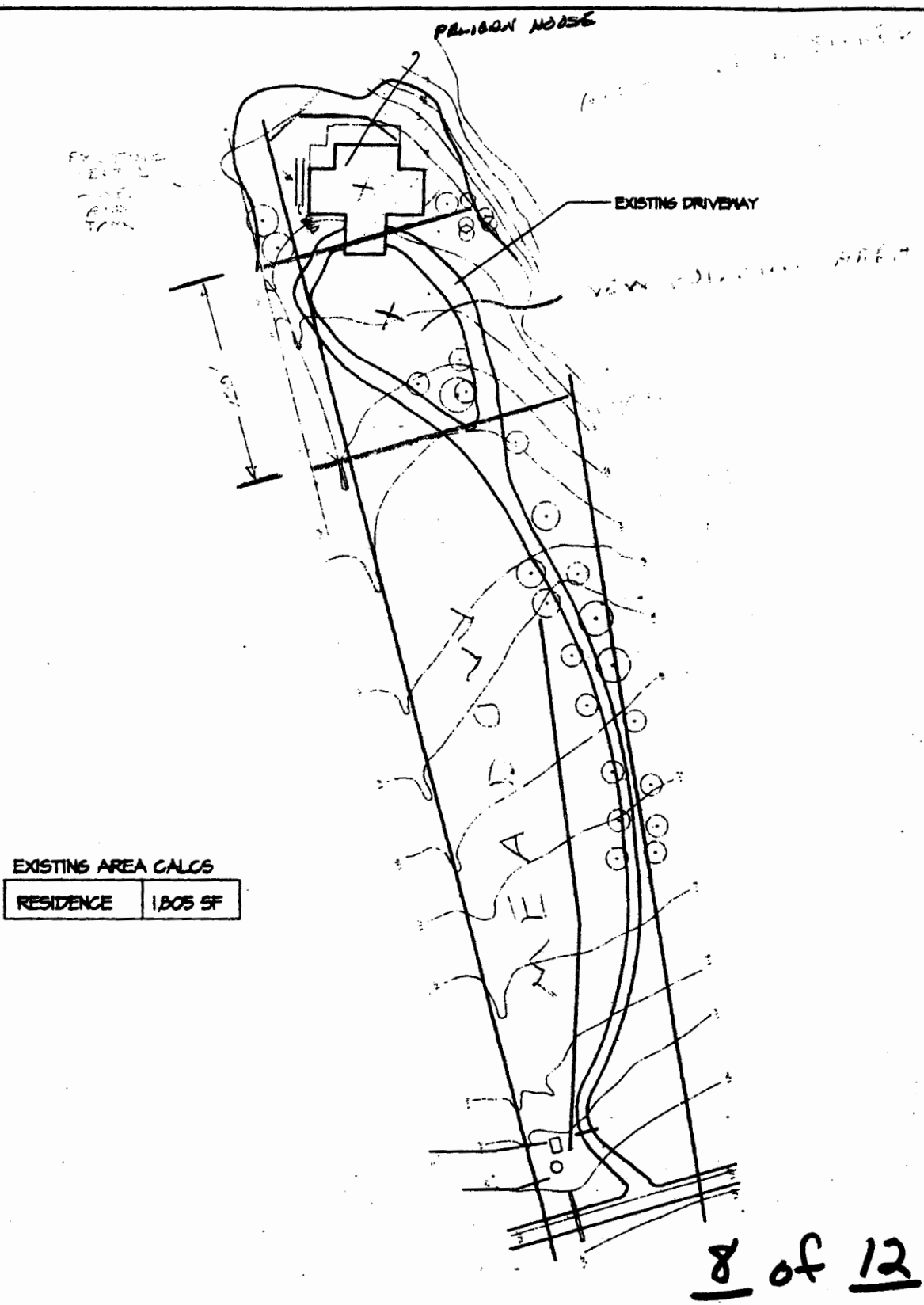
AAP@ashokanarchitecture.com

JOB: 0205.Phelps Residence

DATE: 6.23.4

SCALE: 1" = 80'-0"

SHEET: SKI SITE PLAN



**ASHOKAN**  
ARCHITECTURE  
& PLANNING, PLLC

❖ 3780 Main Street  
Stone Ridge, New York 12484  
Ph. (845) 687-9829  
Fax (845) 687-2515

AAP@ashokanarchitecture.com

JOB: 0205.Phelps Residence

DATE: 6.23.4

SCALE: 1" = 80'-0"

SHEET: SK2 EXISTING SITE PLAN

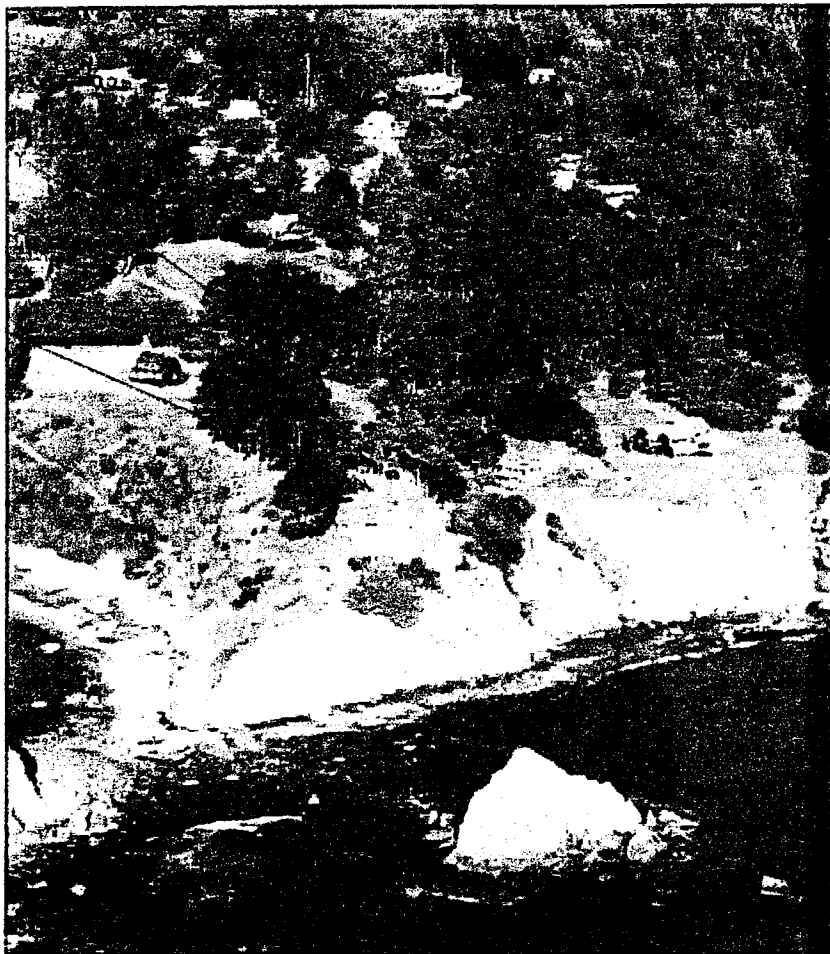
Home

New Lookup

California Coastal Records ]

1. WALKER GULCH BEACH  
AS SHOWN

2. VIEW FROM THE  
EXISTING AREA  
BEACH. THE  
EXISTING BEACH ARE AT  
THE WESTERN END OF  
LONG WALKER GULCH. THE  
BEACH AREA IS NEARLY  
UNDEVELOPED. THERE ARE  
DRIVEWAYS.



N38 50.36 W123 38.79 Image 11995 T

Nearest caption: Walker Gulch Beach, south of Pt. Arena — where Walker Gulch (center of photo) meets the ocean. (at Image 11996, 348 ft East)

Copyright © 2002 Kenneth Adelman. All rights reserved.

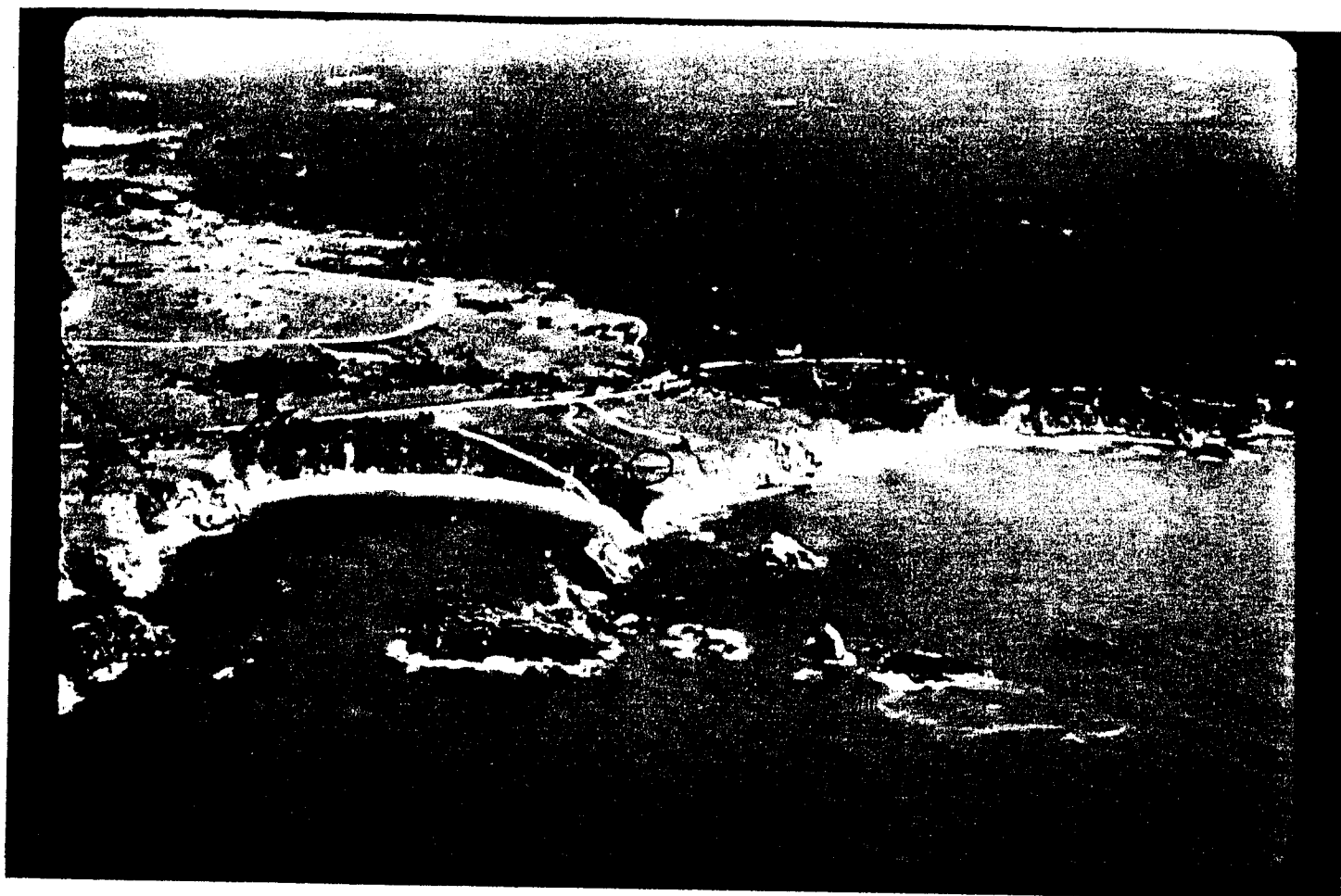
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COASTAL COMMISSION9 of 12



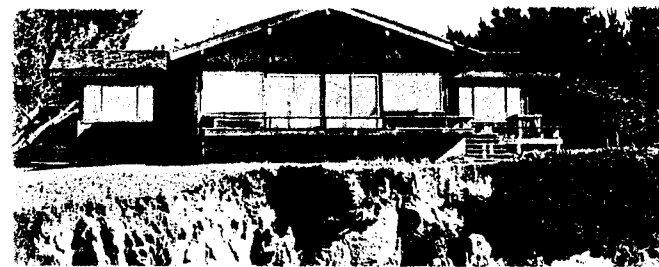
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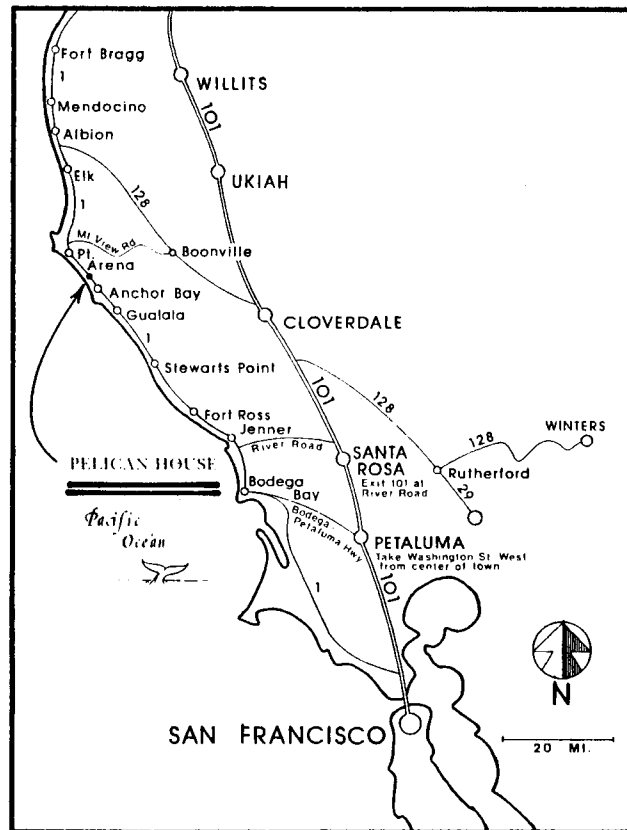
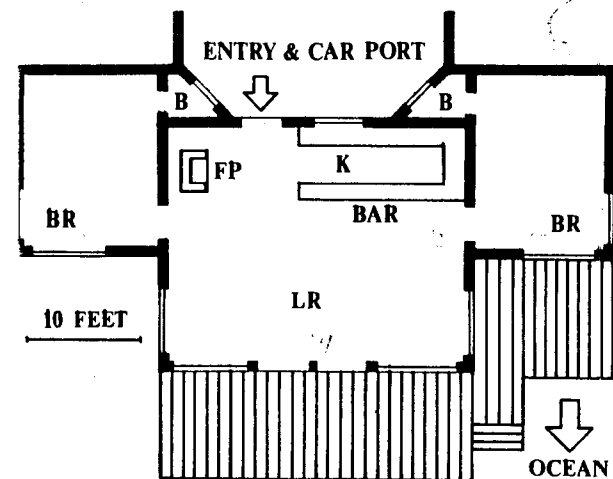


The house perches at the end of a bluff, giving you a spectacular view of the ocean. To the southeast, pine clad headlands recede into the hazy distance. To the north, Pelican House looks down on a hidden cove protected from the ocean's fury by a rugged grass-topped island. Broad decks on the west side of the house bring you even closer to the cliff, where seventy feet below, surf crashes against crags and tumbled boulders.

Pelican house is situated close to several state parks and beaches providing you with a wide variety of habitats to observe. You can visit rocky headlands, a lighthouse, miles of sandy beaches, coastal prairies, scenic rivers, redwood and fir forests. The towns of Mendocino, Gualala, Elk and others are all within easy reach.

Pelican house has two bedrooms, two baths, a large central living area with fireplace, couches, tables, and a completely equipped kitchen.

House Floor Plan



The best roads to the coast are:

101 north to Petaluma then the Bodega-Petaluma Highway to Bodega Bay then north on Highway 1.

101 north to Santa Rosa then State Highway 12 to 116 to Jenner then north on Highway 1.

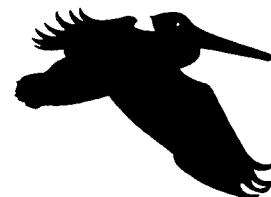
Driving time from the San Francisco Bay Area is about three hours.

If you are interested in making a reservation or would like more information, please call or write Eric Beihl at:

30230 Highway 1  
Point Arena, CA  
95468  
(707) 884-3244

# Pelican House

on the Mendocino seaciffs



a nature retreat

a meeting place

a weekend hideway

# Pelican House is

A retreat at the edge of the ocean; a place where you and a friend or a group can enjoy the beauty of the Mendocino Coast.

Located on the seacliffs above the ocean, you are among the soaring seabirds, listening to the surf's endless song while whales move offshore with the changing seasons.

Pelican house is a comfortable, well supplied home, waiting to become what you want it to be:

*A Nature Retreat*, with rich tidepools, beaches, rivers and forests for you to explore.

*A Meeting Place*, to provide your group with a creative atmosphere in which to work or relax.

*A Weekend Hideaway*, or a quiet vacation spot for you and a friend or the whole family — the perfect place to get away from it all.

A private residence, Pelican House is available for rental by individuals interested in a relaxing escape into the natural beauty of the Mendocino Coast.

12 of 12



CDP 6X-07

# **GEOTECHNICAL INVESTIGATION**

**PLANNED PHELPS RESIDENCE  
30250 SOUTH HIGHWAY ONE  
MENDOCINO COUNTY, CALIFORNIA**

**11804.1**

**June 15, 2004**

**EXHIBIT NO. 6**

**APPEAL NO.**

**A-1-MEN-05-029**

**(PHELPS)**

**GEOTECHNICAL**

**ANALYSIS (Page 1 of 27)**

**Brunsing Associates, Inc.**



GEOTECHNICAL INVESTIGATION  
PLANNED PHELPS RESIDENCE  
30250 SOUTH HIGHWAY ONE  
MENDOCINO COUNTY, CALIFORNIA

11804.1

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June 15, 2004



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## 1.0 INTRODUCTION

This report presents the results of BACE Geotechnical's, (BACE's) a division of Brunsing Associates, Inc. geotechnical investigation for the planned replacement residence at 30250 South Highway One, Gualala, Mendocino County, California. The site is located on a small bluff point about eight miles northwest of Gualala, approximately 1,500 feet southeast of the Iversen Road and Highway One intersection, as shown on the Vicinity Map, Plate 1.

BACE previously performed an engineering geologic reconnaissance for a previous buyer of this property. The results of our reconnaissance were presented in a letter dated June 23, 2000.

The (undated) Preliminary Site Plan by Ashokan Architecture and Planning, shows the planned development will consist of removing the existing house and constructing a new single-family house, carport, maintenance shed, and driveway. The configuration of the planned buildings are shown on the Site Geologic Map, Plate 2. The buildings will be one-story high structures and will have spread footing foundations. The driveway and carport floor will have a gravel finished surface. We understand that site grading will be limited to removal of existing foundations, minor, if any, cuts or fills for drainage around the structures, and reprocessing of weak soils for support of slab-on-grade floors in the maintenance shed and/or elsewhere within the structure.

The purpose of our investigation was to evaluate the soil and rock conditions at the parcel with respect to the feasibility and design of the planned residence. Our scope of services, as outlined in our Service Agreement, dated June 10, 2003, included geologic map and literature research, study of recent (2000) and older (1981 & 1963) aerial photographs, geologic reconnaissance, subsurface exploration, laboratory testing, engineering and geologic analyses in order to provide conclusions and recommendations regarding:

- Geologic/subsurface conditions at the site;
- The potential effects of seismicity and fault rupture;
- Historic, current, and anticipated bluff retreat rate;
- Setbacks from steep slopes;
- Foundation design criteria and estimated settlement;
- Support of concrete slab-on-grade floor and exterior slabs, as appropriate;
- Site grading and drainage;
- Anticipated construction problems, as appropriate;



- Geotechnical services during construction and other additional services, as appropriate.

During our investigation we provided recommended ocean bluff setback criteria in a memorandum dated July 15, 2003.

## 2.0 INVESTIGATION

### 2.1 Research

As part of our investigation, we reviewed the following published references:

- Geologic Factors in Coastal Zone Planning, Schooner Gulch to Gualala River, Mendocino County, 1976, Open File Report 76-3, California Division of Mines and Geology (CDMG).
- Geologic Map of the Santa Rosa Quadrangle, 1982, Map No. 2A, Regional Geologic Map Series, CDMG.
- Santa Rosa Sheet, Geologic Map of California, 1963, CDMG.

In addition to the published references listed above, we reviewed the following geologic investigation report for the property by another consultant:

- Coastal Bluff Evaluation Report, December 23, 1985, Applied Earth Sciences (AES).

### 2.2 Reconnaissance

Our Principal Engineering Geologist performed a reconnaissance of the site on April 19, 2000; the results of which were presented in the above-mentioned letter, dated June 23, 2000. That reconnaissance consisted of walking the blufftop around the existing house area and climbing the bluff faces, aided by ropes, in order to examine the exposed soil and rock materials. The bluff toe was observed just before a high tide of plus 4.7 feet, according to published Tide Tables. During that reconnaissance, we met with the property caretaker, Eric Biehl. Photographs from key vantage points were taken during that reconnaissance.





On July 2, 2003, our Project Geologist photographed the site from the same key vantage points during a tide level of approximately plus 2.5 feet. The 2003 photographs were compared with the 2000 photographs as part of our study. In addition, we studied aerial photographs enlarged to a scale of one inch equals approximately 200 feet, dated 1963, 1981, and 2000. We compared the property and vicinity bluff line in the photographs with the bluff line as it appears at present.

### 2.3 Field Exploration

The field exploration consisted of the drilling, logging, and sampling of four test borings within and adjacent to the planned residence and maintenance shed foundation areas. The borings were drilled on June 12, 2003, with a track-mounted, all-terrain drill rig utilizing flight auger equipment. The test borings, B-1, B-2, B-3, and B-4, were 8 feet, 10 feet, 9 feet, and 9-½ feet in depth, respectively. Our project geologist logged the borings and obtained both relatively undisturbed tube and loose bulk-samples of the materials encountered for visual classification and laboratory testing. The approximate boring locations are shown on Plate 2.

Our Project Geologist obtained relatively undisturbed tube samples using a 3-inch outside-diameter Sprague & Henwood split-barrel sampler, driven by a 140-pound drop-hammer falling 30-inches-per-blow. Blows required to drive the sampler were converted to equivalent "Standard Penetration" blow counts for correlation with empirical test data. Sampler penetration resistance (blow counts) provides a relative measure of soil/rock consistency and strength.

The logs of the test borings, showing the various soil and rock materials encountered and the depths at which samples were obtained, are presented on Plates 3 and 4. The soils are classified in accordance with the Unified Soil Classification System, Plate 5, using the Physical Properties Criteria for Soil Classification, presented on Plate 6. The bedrock materials are described using the various criteria shown on the Rock Characteristics Chart, Plate 7.

### 2.4 Laboratory Testing

Selected samples were tested in our laboratory to determine their pertinent geotechnical engineering characteristics. Laboratory testing consisted of moisture content/dry density, classification (sieve analysis), and triaxial compressive strength tests. The laboratory test data are summarized on the test



boring logs in the manner shown on the Key to Test Data on Plate 5. Classification test data (grain size distribution) are presented on Plate 8.

### 3.0 SITE CONDITIONS

The roughly-rectangular property extends southwest from Highway One to a point on the ocean bluff. The bluff is approximately 70 feet high with slope gradients that vary from about one half horizontal to one vertical (1/2H:1V) to almost vertical. The point and an offshore island (accessible at low tides) form the southerly boundary of a cove; the peninsula of Iversen Point forms the northwesterly boundary of this cove. The southerly portion of the property point is open to the ocean. There are no sea caves within the property bluffs.

The existing house is in the approximate center of the point. The single-story existing house is on a concrete perimeter foundation; no evidence of settlement-related cracking was observed during our investigation. The existing house does not have roof gutters; runoff sheets off in all directions. We understand that an existing leach field is located east-northeast of the existing house.

The southwest side of the existing house and attached deck are 25 and 15 feet, respectively, from the near-vertical bluff edge at the point, as measured (by BACE in both 2000 and 2003. The 1985 AES report states that the "closest point to the bluff from the house is about 25 feet (17 feet from the deck)". A swale slopes steeply down from the southwest bluff. The upper swale is strewn with boulders and wood debris. The lower swale is mostly bare soil and weathered rock, and opens onto a boulder beach at the bluff toe. The toe of the southwest bluff is exposed to ocean waves as well as currents that run between the point and the offshore island.

The northwest corner of the existing house is about 23 feet from a change in slope where the bluff slope steepens from near-level to about 3H:1V. A six-foot high, near-vertical scarp is approximately 10 feet downslope from the first change in slope. The scarp is on the uphill side of a gently sloping bench that is approximately 15 feet across by about 30 feet wide (parallel to the bluff face). The bluff slopes steeply below this bench, down to a sandy beach, within the cove. The lower northwest bluff is comprised of hard rocks that are generally resistant to wave erosion, except for erosion within the weaker fracture zones. Waves from the northwest (the prevailing wave direction) are calmed as the waves bend around Iversen Point and enter the cove, before reaching the northwest bluff toe.



The southeast corner of the existing house is approximately 32 feet from the head of a steeply sloping drainage swale. The drainage swale forms a near vertical bluff. A shallow, approximately one foot deep, drainage ditch, which had a trickle of water at the time of our April 2000 reconnaissance, flows into this swale. Dense brush and small trees are within most of this swale, before it empties onto the boulder, cobble, and gravel beach below. Rocks eroded from the bluffs form the beach debris at the bluff toe.

The upper bluff in the house vicinity is covered by grass, weeds, and (formerly) ice plant. A stand of stunted pine trees is located at the bluff (change in slope) edge on the northwest side of the existing house. Taller pine trees are located east-northeast of the existing house. A large cypress tree is at the edge of the central portion of the swale on the southwest side of the existing house.

#### 4.0 SITE GEOLOGY AND SOILS

The site bedrock consists of sandstone with minor shale and siltstone of the Paleocene German Rancho Formation. These marine sediments, as observed on the bluff face, are light gray to yellow brown, moderately fractured, friable to hard, and little to deeply weathered. As observed in our test borings, the sandstone was light gray-brown to orange-brown, intensely fractured to crushed, moderately hard to hard, and moderately weathered. The shale, as observed in test boring B-4, was orange-brown and light brown, crushed, moderately hard, and deeply weathered. Practical drilling refusal in hard sandstone was encountered at 8 to 10 feet below the ground surface in our borings. The site bedding orientation consists of a northwesterly strike with a gentle dip, approximately 15 degrees from horizontal, toward the northeast. With this orientation, the beds are dipping into the point, toward the subject residence.

The rock beds in the offshore islands are steeply dipping, from near vertical to about 85 degrees from horizontal, toward the southwest. This abrupt difference in bedding orientation is most likely due to a fault. This probably ancient, northwest-trending fault is located just west of the point toe, between the point and the offshore island. No evidence was observed that would indicate that this fault is active. The main trace (1906 movement) of the San Andreas Fault is located within the Garcia River Canyon, approximately 3- $\frac{3}{4}$  (6 kilometers) miles northeast of the site. The San Andreas Fault is a right-lateral strike-slip fault and has a north-northwesterly trending strike with a near vertical dip.

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The (relatively flat, marine-cut terrace) bedrock is overlain by 2-½ to 3-½ feet of terrace deposits, consisting of brown topsoils that are porous and weak, and locally contain roots. These topsoils consist of loose to medium dense silty sand.

Three landslides are situated on the upper bluffs near the existing residence, two of the landslides, one south and the other southwest of the house, are active. The other landslide, northwest of the house is dormant.

The southernmost landslide consists of a relatively small, approximately 12 feet wide by about 8 feet high, near vertical scarp where periodic rockfalls have been occurring.

The upper portion of the southwest landslide area consists of a slump with an approximately six-foot-high scarp. The scarp partially exposes hard sandstone. Rock falls from the sandstone has left boulders, along with discarded lumber debris, strewn on the slope surface. Most of the slump area is vegetated with grass, brush, and the large cypress tree. According to Mr. Biehl, this slump moved in about 1977. The slump does not appear to have moved in the past few years, based upon the absence of ground cracks or other evidence of displacements. The lower portion of this slide is an active erosion area that is enlarging headward into a portion of the slump block toe. The erosion area is beginning to expose the roots of the large cypress tree. Debris, including soil, boulders and a small, dead cypress tree, is accumulating at the toe of this erosion area and being washed away by waves coming over the boulder beach.

The northwesterly slide area is an old slump block (topographic bench) that has dropped about six feet over-all. Grass and weeds cover the slump block. No evidence of recent (past few years) activity was observed.

## 5.0 DISCUSSIONS AND CONCLUSIONS

### 5.1 General

Based upon the results of our investigation and review of available seismic data, we conclude that, despite the inherent risk of blufftop ownership, the site is geotechnically suitable for the planned residential construction.

The main geotechnical constraints that should be considered in the design and construction of this project include, bluff stability, strong seismic shaking from future earthquakes, fault rupture hazard, settlement, and erosion control. These



considerations and their possible mitigation measures are discussed below along with other specific aspects of this project.

## 5.2 Bluff Stability/Setback Criteria

Our review of the 1963, 1981 and 2000 aerial photographs enlargements compared with what is visible now shows no major changes in the site or within the local coastline configuration (except for construction of the existing house and associated improvements). The bluff appears relatively unchanged since the 1985 AES evaluation and the 2000 BACE geologic reconnaissance. The upper bluff retreat rate appears to be relatively low.

BACE is uncertain if the AES stated distance of 17 feet from the deck to the bluff edge was a direct measurement or visual estimate. If a direct measurement, this would indicate that the bluff has eroded back 2 feet in 18 years (1985-2003), for an average retreat rate of 1.33 inches per year.

We have used higher retreat rates for our setback determination in consideration of possible landslide re-activation and/or increased erosion potential due to future sea level rise over the structure lifetime. The California Coastal Commission has accepted a sea level rise estimate of 1.6 feet over the next 100 years, or 1.2 feet over the next 75 years (the structure lifetime).

Based upon the results of our aerial photograph study and field reconnaissances, an average retreat rate of 3.2 inches per year is probably more realistic in consideration of the episodic landsliding that has been occurring on the southwest bluff. A retreat rate of 3.2 inches over 75 years (the economic lifespan of a house per the California Coastal Commission) should result in a bluff loss of approximately 20 feet. Using a safety factor of 1.5, a suitable setback for the southwest bluff would be 30 feet.

Our aerial photograph study and field reconnaissance determined a lesser retreat rate of 2.6 inches per year for the northwest bluff (including the dormant landslide). This retreat rate will result in a bluff loss of 16.25 feet over the next 75 years. Again, using a safety factor of 1.5 and rounding up slightly, a suitable bluff setback would be 25 feet.

The southeast (drainage swale) bluff is steep, but stable. Our aerial photograph study found no evidence of bluff retreat since 1963. Nonetheless, an assumed



retreat rate of 2 inches per year seems appropriate. Applying a safety factor of 1.5, we recommend a bluff setback of (rounding up) 19 feet.

The house outline and bluff setback lines are shown in Plate 2. The planned house location, as drawn by Ashokan Architecture, is in conformance with BACE's recommended setbacks. We understand that the house will have a roof over-hang of two feet, which should also be in conformance with Mendocino County coastal guidelines.

### 5.3 Fault Rupture Hazard

Since the San Andreas Fault is 3-¾ miles away, and no evidence of faulting was observed at the site, nor shown on the geologic maps and reports that we reviewed, we consider the potential for fault rupture at the site to be very low.

### 5.4 Seismic Ground Shaking

As is typical of the Mendocino County area, the site will be subject to strong ground shaking during future, nearby, large magnitude earthquakes. 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. Generally, one- and two-story wood-frame structures supported on foundations in firm materials, and designed in accordance with current building codes are well suited to resist the effects of ground shaking. With firm bedrock within about 2 to 3-½ feet from the ground surface, at the planned building area, the site should receive short period, jarring motions during an earthquake, with no significant ground wave amplifications that otherwise would be produced by a thick, weak soil deposit. Based upon the silty soils and the medium-dense to dense sand encountered in our borings, we conclude that these soils are non-liquefiable. We consider the potential for seismically induced liquefaction to be very low. The relatively small slides southwest and northwest of the existing house could suddenly drop during an earthquake, but these would be localized failures that would not immediately affect the planned house.

### 5.5 Settlement

Assuming foundations are designed and constructed in accordance with our recommendations, we estimate that the maximum post-construction settlement due to foundation loads will be less than 1/2 inch. We judge that post-



construction differential settlement will be less than 1/4 inch between adjacent foundations.

## 5.6 Erosion Control

The planned residence will be intercepting the natural sheet flow drainage across the site. Concentrated runoff (including water from roof gutter downspouts) should be dispersed onto the ground surface on the inland side of the residence. Drain water should be outletted to the south end of the property away from the bluff and the leach field area as described in the Site Drainage Section of this report.

## 6.0 RECOMMENDATIONS

### 6.1 Site Grading

Areas to be graded should be cleared of existing foundations, vegetation, rubbish, and debris. After clearing, surface soils that contain organic matter should be stripped. In general, the depth of required stripping will be about 2 to 3 inches; deeper stripping and grubbing may be required to remove isolated concentrations of organic matter or roots. The cleared materials should be removed from the site; however, strippings can be stockpiled for later use in landscaped areas.

BACE should be notified in advance if fill material placement is planned for the project. Fill material, either imported or on-site, should be free of perishable matter and rocks greater than six inches in largest dimension, and have an Expansion Index of less than 40, and should be approved by BACE before being used on site as structural fill below footings or slab-on-grade floors. Furthermore, specific recommendations for fill area preparation and for material placement should be made by BACE before structural fill placement.

### 6.2 Foundation Support

#### 6.2.1 Spread Footings

The proposed structures can be supported on reinforced concrete footings founded in dense, natural soils, rock, or compacted fill placed in accordance with our previous recommendations. Footings can be assigned a soil bearing pressure of 2500 pounds per square foot (psf) for dead plus live loads. A one-half increase



in bearing pressure is allowable when considering wind or seismic loads. Footing elements should be founded at least 12 inches below lowest adjacent SSG for the planned one-story construction and 18 inches if there will be two-story construction. Regardless of load, wall footings should be no less than 12 to 15 inches wide for one and two-story construction, respectively, and isolated footings should be at least 18 inches wide.

Footing excavations may be as deep as 3 to 4 feet to obtain uniform bearing within supporting soil/rock, as observed by BACE. Footings deepened below the minimum depths can be backfilled with lean concrete to within 18 inches of SSG. A "standard" footing with reinforcing can then be constructed on top of the lean concrete. Where footing depths cannot be excavated due to the presence of hard rock, footings may be dowelled into the rock per the structural engineer's requirements.

### 6.2.2 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 foundations. An allowable passive pressure of 250 psf plus 150 psf per foot of depth psf below soil subgrade (trapezoidal distribution), and frictional resistance of 0.30 times the net vertical dead load, are appropriate for footing elements poured neat against supporting natural and approved engineered fill soils. If required, addition lateral load resistance can be obtained using sidewall friction of 100 psf along footing sides. Passive pressure and sidewall friction should be neglected within the upper six inches of SSG, unless slabs or pavement confines the surface.

### **6.3 Seismic Design Criteria**

The proposed structures should be designed and constructed to resist the effects of strong ground shaking (on the order of Modified Mercalli Intensity IX) in accordance with current building codes. The Uniform Building Code (UBC), 1997 edition, indicates that the following seismic design criteria, based upon the proximity of the Type A, San Andreas Fault are appropriate for the site:

|                       |                    |
|-----------------------|--------------------|
| Seismic Zone Factor,  | $Z = 0.40$         |
| Soil Profile Type =   | $S_c$              |
| Seismic Coefficients, | $C_a = 0.40$ $N_a$ |
|                       | $C_v = 0.56$ $N_v$ |

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Near Source Factors,       $N_a = 1.2$   
                                       $N_v = 1.5$   
 Seismic Source Type =      A (San Andreas Fault)  
 Distance to Fault =        Approximately 6 km (3-3/4 mi)

#### 6.4 Concrete Slabs-On-Grade

During existing house-foundation removal and subsequent foundation and utility trench construction, planned subgrade surfaces may be disturbed. Where this is the case, the subgrade should be moisture conditioned as necessary, and re-rolled to provide a firm, smooth, unyielding surface compacted to at least 90 percent RC.

Slab-on-grade floors should be underlain by at least 4 inches of clean, free-draining gravel or crushed rock, graded in size from 1-1/2 or 3/4 maximum to 1/4 inches minimum, to act as a capillary moisture break. In areas where movement of moisture vapor through the slab would be detrimental to its intended use, installation of a vapor barrier (e.g., visqueen) should be considered.

Exterior concrete flatwork (non-traffic areas) can be placed directly on a minimum of 12 inches of suitably prepared low expansive, select fill compacted as described in the previous sections of this report. Where the compacted subgrade soils have been disturbed by traffic or foundation excavations, the subgrade should be scarified, moisture conditioned, and recompacted to at least 90 percent RC.

#### 6.5 Utility Trenches

Utility trenches four feet in depth, or less, can be excavated with "standard" excavating equipment. However, isolated boulders may be encountered that will require using a hoe-ram attachment. Utility trenches greater than five feet in depth, or less than five feet in depth in areas of weak soils, should be sloped or shored in accordance with State of California Safety Regulations.

Within structural areas, trench backfill material should meet the previously recommended requirements for select fill. Below about two feet from soil subgrade, the contractor may elect to use imported granular materials; if so, the granular soils should have an expansion index less than 40 and have 100 percent passing the 4-inch screen, 30 to 100 percent passing the 3/8-inch sieve, 0 to 40 percent passing the No. 40 sieve, and 0 to 10 percent passing the No. 200 sieve.



Utility trench soil backfill should be placed in layers 6 to 8 inches or less in loose-thickness, moisture conditioned as required, and compacted as previously recommended for compacted fill. Jetting or flooding is not a suitable method of compaction. Granular backfill, if used, should be placed in layers 8 inches or less in loose-thickness, and compacted with vibrating, or other, approved equipment to the specified degrees of relative compaction or to equivalent relative density, as recommended by BACE. For purposes of this report, 90 percent RC is the equivalent of 50 percent relative density.

## 6.6 Site Drainage

Because surface and/or subsurface water is often the cause of foundation or slope stability problems, care should be taken to intercept and divert concentrated surface flows and subsurface seepage away from the building foundations and the top and toe of the cut and fill slopes. Drain outlets into the nearby swales should be located within densely vegetated areas, or should be protected from erosion by riprap (large cobbles or small boulders). BACE should monitor the site during construction to determine if additional subdrains are necessary.

## 6.7 Additional Services

Before construction, BACE should review the final grading, drainage, and foundation plans and geotechnical-related specifications for conformance with our recommendations.

During construction, BACE should be retained to provide periodic observations, together with the appropriate field and laboratory testing, during site preparation, placement and compaction of fills and backfills, subdrain installation and foundation construction. Foundation excavations should be reviewed by BACE while the excavation operations are being performed. Our reviews and tests would allow us to check that the work is being performed in accordance with project guidelines, confirm that the soil conditions are as anticipated, and to modify our recommendations, if necessary.

Furthermore, BACE can provide material testing and observation during construction, including observations and test during concrete placement, compressive strength determination, reinforcing steel placement, and masonry inspection and testing, where required.



## 7.0 LIMITATIONS

This geotechnical investigation 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 this report. Our conclusions are based upon reasonable geologic and engineering interpretation of available data. A soil corrosively study was not included in our scope of services for this project.

The samples taken and tested, and the observations made, are considered to be representative of the site; however, soil and geologic conditions may vary significantly between borings. As in most projects, conditions revealed during construction excavation may be at variance with preliminary findings. If this occurs, the changed conditions must be evaluated by BACE Geotechnical (BACE), and revised recommendations be provided as required.

This report is issued with the understanding that the Owner, or his/her representative, has the responsibility to provide the information and recommendations contained herein to other design professionals for the project, and incorporated into the plans, and that the Contractor and Subcontractor 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/she considers any of the recommended actions presented herein to be unsafe or otherwise impractical.

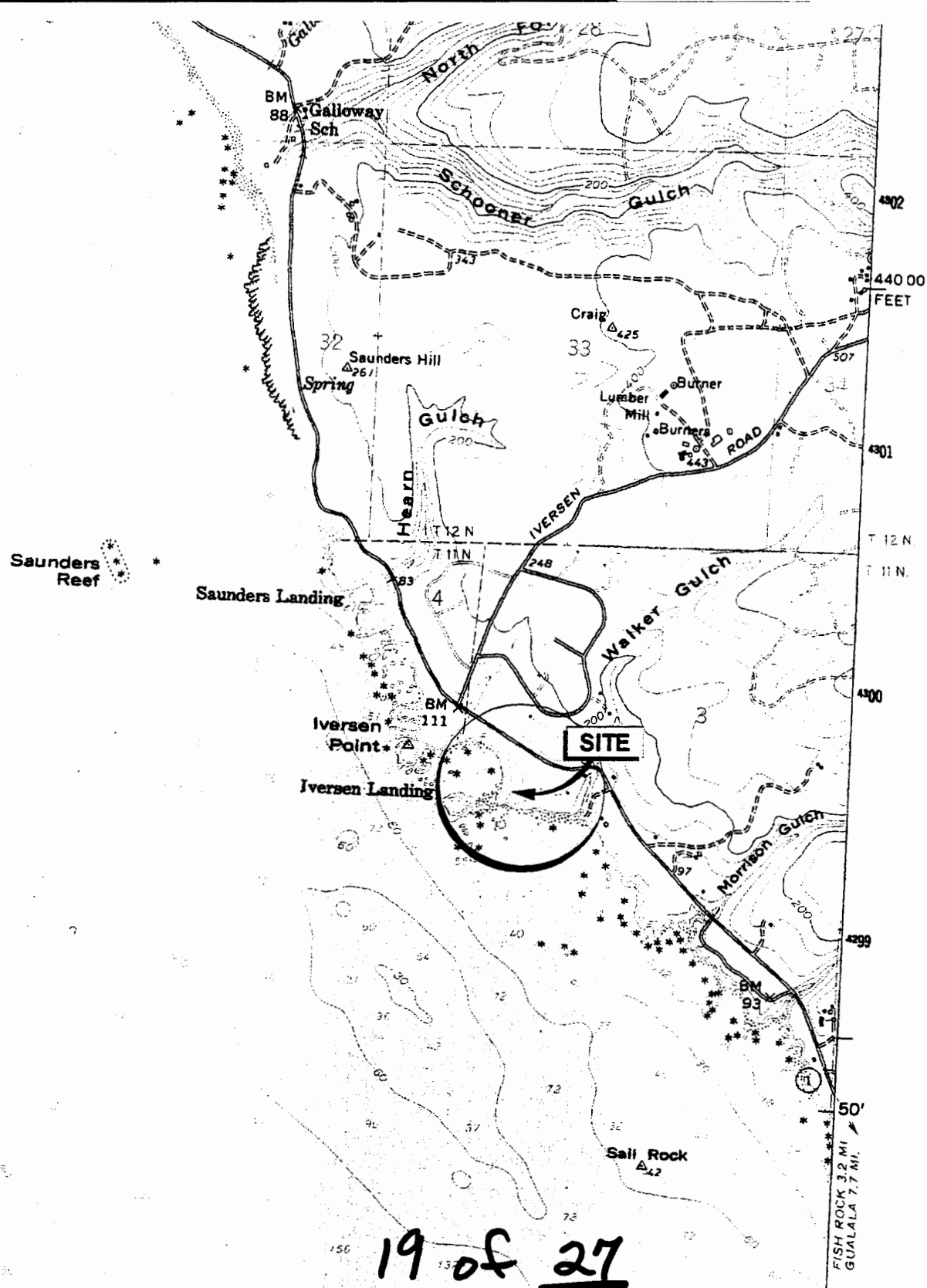
Changes in the conditions of a site can occur with the passage of time, whether they are due to natural events or to human activities on this, or adjacent sites. In addition, changes in applicable or appropriate codes and standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, this report may become invalidated wholly or partially by changes outside our control. Therefore, this report is subject to review and revision as changed conditions are identified.

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 conceptual changes are undertaken during final project design, we should be allowed to review them in lift of this report to determine if our recommendations are still applicable.

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## ILLUSTRATIONS



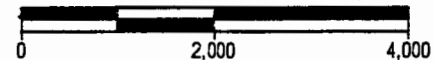


REFERENCE:

Saunders Reef, 1993,  
7.5 Minute Quadrangle Topographic Map, USGS.



APPROXIMATE SCALE (FEET)



**BACE Geotechnical**  
a division of  
Brunsing Associates, Inc.  
(707) 838-0780

Job No.: 11804.1

Appr.: **EEO**

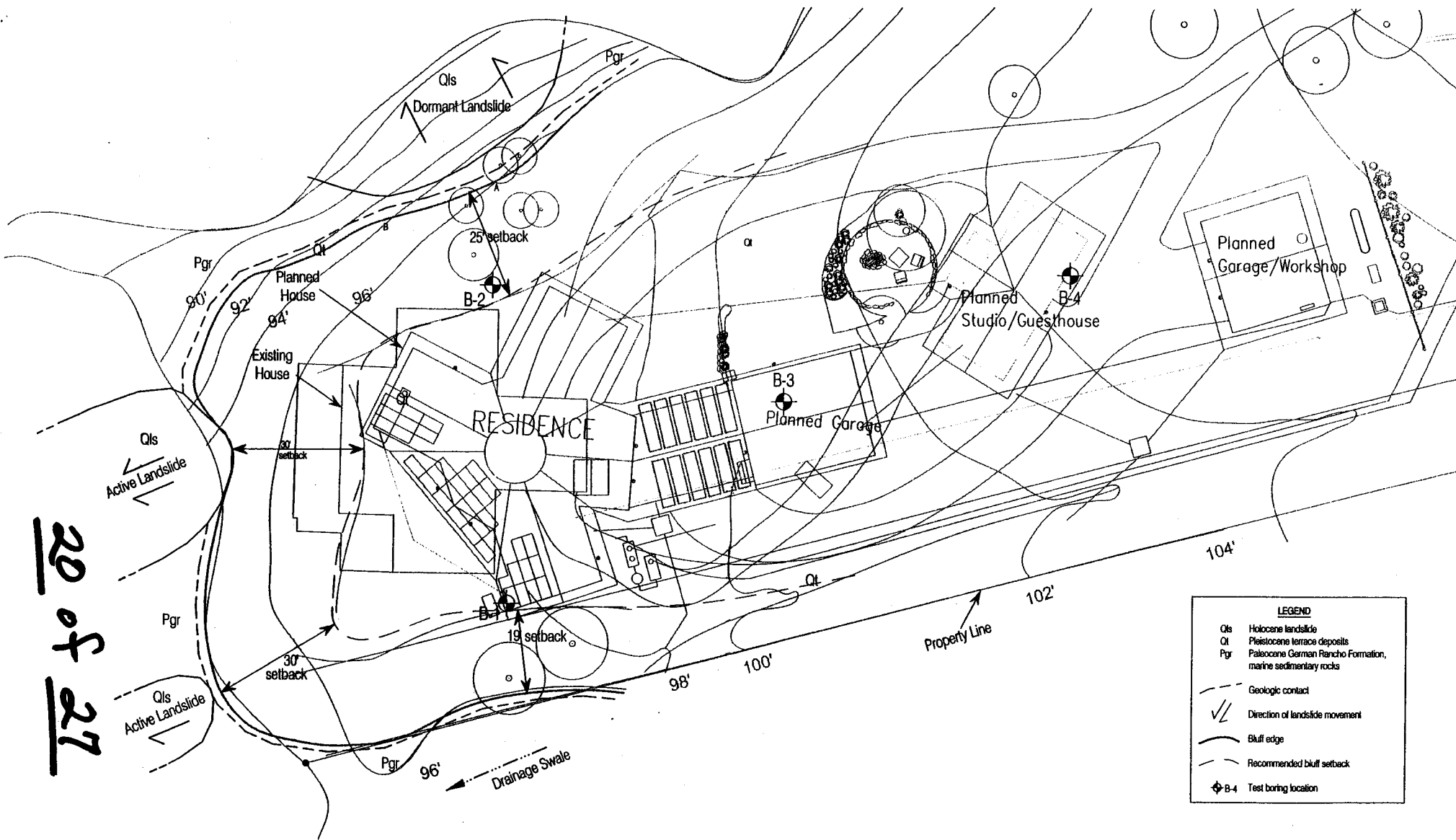
Date: 6/15/04

**VICINITY MAP**  
**PROPOSED PHELPS RESIDENCE**  
30250 South Highway One  
Mendocino County, California

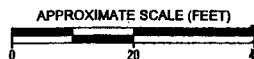
PLATE

**1**

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REFERENCE:  
 Untitled development plan provided by  
 Ashokan Architecture and Planning, PLLC.



|  |   |  |  |                   |
|--|---|--|--|-------------------|
|  | <b>BACE Geotechnical</b><br>a division of<br>Bruning Associates, Inc.<br>(707) 838-0780 | Job No.: 11804.1<br>Appr.: <b>CEO</b><br>Date: 8/15/04 | <b>SITE GEOLOGIC MAP</b><br>PROPOSED PHELPS RESIDENCE<br>30250 South Highway One<br>Mendocino County, California | PLATE<br><b>2</b> |
|--|---|--|--|-------------------|

BRUNSG ASSOCIATES, INC.  
P.O. BOX 588  
Windsor, CA. 95492  
Telephone: (707) 838-3027  
Fax: (707) 838-4420

COORDINATES:

SURFACE ELEVATION: 100'

DATUM:

BORING NO.: B-6

SHEET 1 OF 2

PROJECT:

LOCATION: Santa Rosa, California

PROJECT NO.: 646.12

LOGGED BY: WHHC

| SAMPLE INFORMATION |               |                |                |                 |              | DESCRIPTION   | STRATA | WELL<br>CONSTRUCTION<br>DETAIL | ELEVATION<br>FEET |
|--------------------|---------------|----------------|----------------|-----------------|--------------|---|--------|--------------------------------|-------------------|
| DEPTH<br>FEET      | LAB<br>SAMPLE | SAMPLE<br>TYPE | BLOW<br>COUNTS | Recovery<br>(%) | PID<br>(ppm) |   |        |                                |                   |
|                    |               |                |                |                 |              | Asphaltic concrete  |        |                                |                   |
|                    |               |                |                |                 |              | BROWN SANDY CLAY (CH) moist, stiff  |        |                                |                   |
| 5                  |               |                | 5              |                 | 0.0          | DARK BROWN SANDY CLAY (CH)<br>moist, very stiff, <25% fine to<br>medium-grained sand  |        |                                | 5                 |
|                    |               |                | 9              |                 | 0.0          |   |        |                                |                   |
|                    |               |                | 14             |                 | 0.0          |   |        |                                |                   |
|                    |               |                | 18             |                 | 0.0          |   |        |                                |                   |
|                    |               |                | 6              |                 | 0.0          | BROWN, ORANGE BROWN SANDY<br>CLAY (CH) moist, stiff, ~40% fine to<br>coarse-grained sand  |        | ▽                              | 10                |
| 10                 |               |                | 10             |                 | 0.0          |   |        |                                |                   |
|                    |               |                | 11             |                 | 0.0          |   |        |                                |                   |
|                    |               |                | 13             |                 | 0.0          |   |        |                                |                   |
|                    |               |                |                |                 | 0.0          | BROWN, ORANGE BROWN SANDY<br>CLAY (CH) saturated, medium stiff, ~40%<br>medium to coarse-grained sand, some<br>gravel, gray-green discoloration |        |                                | 15                |
| 15                 |               |                | 9              |                 | 0.0          |   |        |                                |                   |
|                    |               |                | 11             |                 | 0.1          | BROWN, ORANGE BROWN CLAYEY<br>GRAVEL (GC) moist, dense, 60%<br>coarse-grained sand and gravels, some<br>grey-green discoloration                |        |                                |                   |
|                    |               |                | 13             |                 | 0.1          |   |        |                                |                   |
|                    |               |                | 14             |                 | 0.1          |   |        |                                |                   |
|                    |               |                | 11             |                 | 0.1          |   |        |                                |                   |
|                    |               |                | 19             |                 | 0.1          |   |        |                                |                   |
|                    |               |                | 23             |                 | 0.1          |   |        |                                |                   |
|                    |               |                | 35             |                 | 0.1          |   |        |                                |                   |
|                    |               |                | 11             |                 | 0.1          |   |        |                                |                   |
|                    |               |                | 18             |                 | 0.1          |   |        |                                |                   |
|                    |               |                | 19             |                 | 0.1          |   |        |                                |                   |
|                    |               |                | 20             |                 | 0.1          |   |        |                                |                   |
| 20                 |               |                | 7              |                 | 0.1          | BROWN SANDY CLAY (CH) moist, stiff,<br>~20% very fine to fine-grained sand, some<br>charcoal bits   |        |                                | 20                |
|                    |               |                | 9              |                 | 0.1          |   |        |                                |                   |
|                    |               |                | 13             |                 | 0.1          |   |        |                                |                   |
|                    |               |                | 14             |                 | 0.1          |   |        |                                |                   |
|                    |               |                | 4              |                 | 0.1          |   |        |                                |                   |
|                    |               |                | 6              |                 | 0.1          |   |        |                                |                   |
|                    |               |                | 7              |                 | 0.1          |   |        |                                |                   |
|                    |               |                | 11             |                 | 0.1          |   |        |                                |                   |
|                    |               |                | 6              |                 | 0.1          |   |        |                                |                   |
|                    |               |                | 7              |                 | 0.1          |   |        |                                |                   |
|                    |               |                | 11             |                 | 0.1          |   |        |                                |                   |
| 25                 |               |                | 14             |                 | 0.1          | BROWN SILTY SAND (SM) saturated,<br>medium dense, >20% silt, fine to<br>medium-grained sand   |        |                                | 25                |

DRILLING CONTRACTOR: Clear Heart

DRILLING METHOD: 8-inch hollow stem auger

DRILLING EQUIPMENT: CME

DRILLING STARTED: 5/19/04 ENDED: 5/19/04

REMARKS No caving

Groundwater encountered at 9.5'

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See key sheet for symbols and abbreviations used above.



BRUNSG ASSOCIATES, INC.

Job No.: 646.12

Appr.:

Date: 6/15/04

LOG OF BORING B-6

1980 Sebastolop Road  
Santa Rosa, California

PLATE

3

BRUNSING ASSOCIATES, INC.  
P.O. BOX 588  
Windsor, CA. 95492  
Telephone: (707) 838-3027  
Fax: (707) 838-4420

COORDINATES:

SURFACE ELEVATION: 100'

DATUM:

BORING NO.: **MW-16-29**

SHEET 2 OF 2

PROJECT:

LOCATION: **Santa Rosa, California**

PROJECT NO.: **646.12**

LOGGED BY: **WHHC**

| SAMPLE INFORMATION |            |             |  |              |           | DESCRIPTION  | STRATA | WELL CONSTRUCTION DETAIL               | ELEVATION FEET |
|--------------------|------------|-------------|--|--------------|-----------|--|--------|--|----------------|
| DEPTH FEET         | LAB SAMPLE | SAMPLE TYPE | BLOW COUNTS  | Recovery (%) | PID (ppm) |  |        |  |                |
| 30                 |            |             | 15<br>18<br>22   |              |           | DARK GREY GREEN SANDY CLAY (CH) moist, stiff, ~20% very fine-grained sand, some silt, root fibers  |        | TR-30 1/4" diameter Pel-Plug bentonite | 30             |
| 35                 |            |             | 9<br>11<br>14<br>16  |              |           | BROWN, GREY BROWN SANDY CLAY (CH) moist, stiff, ~25% very fine-grained sand<br>BROWN, ORANGE BROWN SANDY SILT (ML) moist, dense, ~40% fine to medium-grained sand  |        | #2/12 Ionestar sand                    | 35             |
| 40                 |            |             | 8<br>10<br>11<br>12<br>9<br>13<br>15<br>16<br>8                  |              |           | BROWN, ORANGE BROWN SILTY SAND (SM) moist to wet, medium dense<br>BROWN, ORANGE BROWN SANDY CLAY (CH) moist, stiff<br>BROWN, ORANGE BROWN SILTY SAND (SM) wet, dense, very fine to fine-grained sand   |        |  | 40             |
| 45                 |            |             | 12<br>14<br>17<br>4<br>7<br>10<br>16<br>6<br>10<br>12<br>17<br>8 |              |           | BROWN, ORANGE BROWN SANDY CLAY (CH) moist, stiff, ~20% very fine-grained sand<br>BROWN SILTY SAND (SM) wet to saturated, dense, fine to medium-grained sand, <20% fines<br>BROWN SANDY CLAY (CH) moist to wet, medium stiff<br>BROWN SILTY SAND (SM) wet, dense<br>BROWN CLAYEY SAND (SC) wet, medium dense, ~30% clay |        | TR-30 1/4" diameter Pel-Plug bentonite | 45             |
| 50                 |            |             | 10<br>16<br>18   |              |           | DARK BROWN SANDY CLAY (CH) moist, very stiff, 20% very fine-grained sand<br>BROWN SANDY CLAY (CH) moist, very stiff, ~20% very fine-grained sand, some charcoal fragments, some orange staining  |        |  | 50             |

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BRUNSING ASSOCIATES, INC.

Job No.: 646.12

Appr.:

Date: 6/15/04

**LOG OF BORING MW-16-29**

1980 Sebastopol Road  
Santa Rosa, California

PLATE

**4**



BRUNSG ASSOCIATES, INC.  
P.O. BOX 588  
Windsor, CA. 95492  
Telephone: (707) 838-3027  
Fax: (707) 838-4420

BORING NO.: B-8

SHEET 2 OF 2

PROJECT:

LOCATION: Santa Rosa, California

PROJECT NO.: 646.12

COORDINATES:

SURFACE ELEVATION: 101'

DATUM:

LOGGED BY: WHHC

| SAMPLE INFORMATION |               |                |                               |                 |              | DESCRIPTION   | STRATA | WELL<br>CONSTRUCTION<br>DETAIL | ELEVATION<br>FEET |
|--------------------|---------------|----------------|-------------------------------|-----------------|--------------|---|--------|--------------------------------|-------------------|
| DEPTH<br>FEET      | LAB<br>SAMPLE | SAMPLE<br>TYPE | BLOW<br>COUNTS                | Recovery<br>(%) | PID<br>(ppm) |   |        |                                |                   |
| 30                 |               |                | 4<br>5<br>10                  |                 | 0.0          | BROWN SILTY SAND (SM) saturated,<br>medium dense<br>BROWN SANDY CLAY (CH) moist,<br>medium stiff<br>BROWN SILTY SAND (SM) saturated,<br>medium dense, <20% fine to<br>medium-grained sand<br>BROWN SANDY CLAY (CH) moist, very<br>stiff, ~20% fine-grained sand, some<br>charcoal fragments |        |                                | 30                |
| 35                 |               |                | 9<br>13<br>21<br>9<br>7<br>12 |                 |              | BROWN SILTY SAND (SM) saturated,<br>dense, fine to medium-grained sand,<br>some orange staining   |        |                                | 35                |
| 40                 |               |                |                               |                 |              |   |        |                                | 40                |
| 45                 |               |                | 9<br>10<br>11                 |                 |              | GRAY BROWN SANDY CLAY (CH)<br>moist, very stiff, <20% fine to<br>medium-grained sand some orange<br>staining, some charcoal fragments   |        |                                | 45                |

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BRUNSG ASSOCIATES, INC.

Job No.: 646.12

Appr.:

Date: 6/15/04

**LOG OF BORING B-8**

1980 Sebastolop Road  
Santa Rosa, California

PLATE

**5**

BRUNSING ASSOCIATES, INC.  
P.O. BOX 588  
Windsor, CA. 95492  
Telephone: (707) 838-3027  
Fax: (707) 838-4420

COORDINATES:

SURFACE ELEVATION: 99'

DATUM:

BORING NO.: B-9

SHEET 1 OF 2

PROJECT:

LOCATION: Santa Rosa, California

PROJECT NO.: 646.12

LOGGED BY: WHHC

| SAMPLE INFORMATION |               |                |                            |                 |              | DESCRIPTION  | STRATA | WELL<br>CONSTRUCTION<br>DETAIL | ELEVATION<br>FEET |
|--------------------|---------------|----------------|----------------------------|-----------------|--------------|--|--------|--------------------------------|-------------------|
| DEPTH<br>FEET      | LAB<br>SAMPLE | SAMPLE<br>TYPE | BLOW<br>COUNTS             | Recovery<br>(%) | PID<br>(ppm) |  |        |                                |                   |
|                    |               |                |                            |                 |              | Asphaltic concrete   |        |                                |                   |
|                    |               |                |                            |                 |              | BROWN GRAY SILTY GRAVEL (GM)   |        |                                |                   |
|                    |               |                |                            |                 |              | baserock   |        |                                |                   |
|                    |               |                |                            |                 |              | BROWN SANDY CLAY (CH) from cuttings  |        |                                |                   |
| 5                  |               |                | 5<br>7<br>10               |                 | 0.0          | DARK BROWN SANDY CLAY (CH) moist, stiff, ~25% fine to medium-grained sand  |        |                                | 5                 |
|                    |               |                |                            |                 |              | BROWN SANDY CLAY (CH) moist, medium stiff, some charcoal fragments   |        |                                |                   |
|                    |               |                | 5<br>7<br>7                |                 | 0.0          | BROWN, ORANGE BROWN SILTY GRAVEL (GM) saturated, medium dense  |        |                                |                   |
| 10                 |               |                |                            |                 |              | BROWN SANDY CLAY (CH) moist, stiff, ~20% fine-grained sand   |        |                                | 10                |
|                    |               |                |                            |                 |              |  |        |                                |                   |
| 15                 |               |                | 12<br>22<br>9              |                 |              | BROWN, ORANGE BROWN SILTY GRAVEL (GM) moist, very dense  |        |                                | 15                |
|                    |               |                |                            |                 |              | BROWN CLAYEY SAND (SC) moist, dense, ~25% medium-grained sand  |        |                                |                   |
|                    |               |                | 16<br>24<br>22             |                 | 0.0          | BROWN SILTY GRAVEL (GM) wet, dense   |        |                                | 20                |
| 20                 |               |                |                            |                 |              |  |        |                                |                   |
|                    |               |                | 5<br>7<br>9<br>5<br>7<br>9 |                 | 0.0<br>0.0   | BROWN SILTY SAND (SM) saturated, medium dense  |        |                                |                   |
| 25                 |               |                |                            |                 |              | BROWN SANDY CLAY (CH) moist, stiff, ~25% very fine to fine-grained sand, some charcoal fragments, some orange staining |        |                                | 25                |
|                    |               |                | 5                          |                 |              |  |        |                                |                   |

DRILLING CONTRACTOR: Clear Heart

DRILLING METHOD: 8-inch hollow stem auger

DRILLING EQUIPMENT: CME

DRILLING STARTED: 5/25/04 ENDED: 5/25/04

REMARKS

24 of 27

See key sheet for symbols and abbreviations used above.



BRUNSING ASSOCIATES, INC.

Job No.: 646.12

Appr.:

Date: 6/15/04

LOG OF BORING B-9

1980 Sebastolop Road  
Santa Rosa, California

PLATE

6

## Generalized Graphic Rock Symbols

|   |                        |   |                                      |   |                     |
|---|------------------------|---|--------------------------------------|---|---------------------|
|  | Siltstone or Claystone |  | Limestone                            |  | Tuff (Volcanic Ash) |
|  | Shale                  |  | Little Weathered Lava or Greenstone  |  | Andesite            |
|  | Sandstone              |  | Serpentine                           |  | Basalt              |
|  | Conglomerate           |  | Deeply (Spheroidally) Weathered Lava |  | Granite             |

## Stratification

### 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  
0.5 inches to 2 inches  
0.125 inches to 0.5 inch  
less than 0.125 inch

## Fracturing

### Fracturing Intensity

Little  
Occasional  
Moderate  
Close  
Intense  
Crushed

### Thickness of Beds

Greater than 4 feet  
1 foot to 4 feet  
6 inches to 1 foot  
1 inch to 6 inches  
0.5 inches to 1 inch  
less than 0.5 inches

## 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.  |

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(707) 838-0780

Job No.: 11804.1

Appr.: **EED**

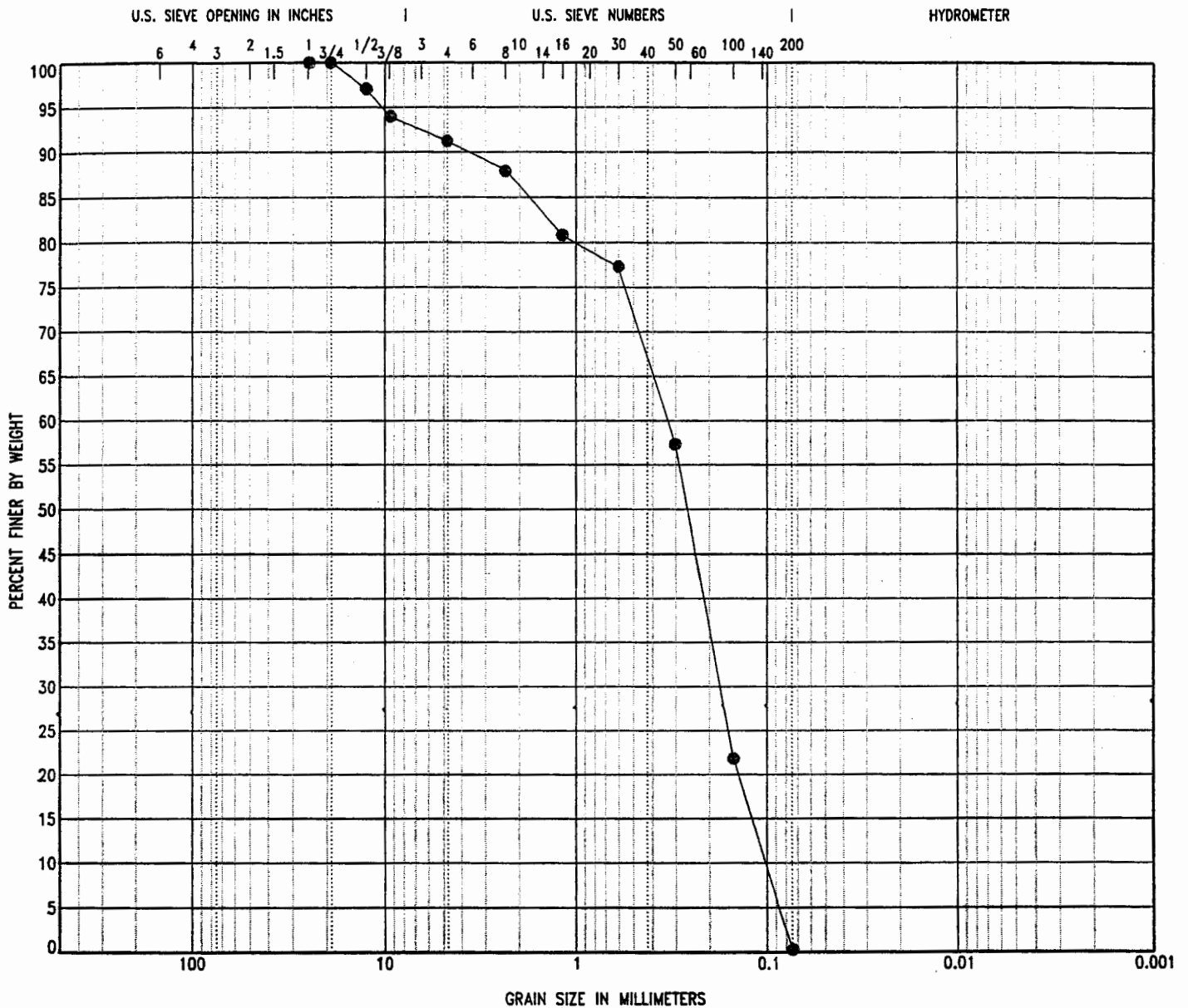
Date: 6/15/04

### ROCK CHARACTERISTICS CHART

PROPOSED PHELPS RESIDENCE  
30250 South Highway One  
Mendocino County, California

PLATE

7



| COBBLES | GRAVEL |      | SAND   |        |      | SILT OR CLAY |
|---------|--------|------|--------|--------|------|--------------|
|         | coarse | fine | coarse | medium | fine |              |

| Specimen Identification | Classification             |
|-------------------------|----------------------------|
| ● B-4 @ 2.5 ft.         | DARK BROWN SILTY SAND (SM) |

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**BACE Geotechnical**  
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(707) 838-0780

Job No.: 11804.1

Appr.: **EEO**

Date: 6/15/04

**GRAIN SIZE DISTRIBUTION**  
PROPOSED PHELPS RESIDENCE  
30250 South Highway One  
Mendocino County, California

PLATE

**8**

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