

## CALIFORNIA COASTAL COMMISSION

NORTH COAST AREA

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Staff:	D. Rance
Staff Report:	December 18, 1998
Hearing Date:	January 14, 1999
Commission Action:	

STAFF REPORT: REGULAR CALENDAR

APPLICATION NO.: 1-98-075

APPLICANTS: Frank and Rosalinda Wall

AGENT: Bud Peltonen

PROJECT LOCATION: 268 Roundhouse Creek Road, in the Big Lagoon area of Humboldt County, APN 517-251-16. See Exhibit Nos. 1 - 4.

PROJECT DESCRIPTION: Move existing uninhabitable single-family vacation home approximately 30+/- feet east and away from the retreating coastal bluff, remove wood deck, and construct new septic system and leach field. The project also involves minor grading and the temporary removal of a portion of the east fence to facilitate house relocation.

Lot Area:	16,900 +/- square feet (.39 +/- acres) *
Building Coverage:	1,561 square feet
Pavement Coverage:	0.0 square feet
Unimproved Area:	15,339 +/- square feet
Landscape Coverage:	2,000 +/- square feet
Parking Spaces:	Existing two car garage
Zoning:	Residential Single-Family, with no further subdivision and design review [one dwelling unit per lawfully created parcel or two with special permit] (RS-X-D)
Plan Designation:	Residential Estates 0-2 dwelling units per acre
Project Density:	One dwelling unit per .39+/- acres
Ht abv fin Grade:	21 +/- feet

LOCAL APPROVALS REQUIRED: Humboldt County Health Department conceptual approval of septic system, Humboldt County Special Permit for Design Review.

SUBSTANTIVE FILE DOCUMENTS: Humboldt County, North Coast Area LUP and findings; Geologic Evaluation for APN 517-241-28, SHN Consulting Engineers and Geologists, February 28, 1985; Update for Geologic Evaluation Focusing On Coastal Bluff Stability for APN 517-241-28, Big Lagoon Estates Subdivision, SHN Consulting Engineers and Geologists, August 15, 1990; Geologic Hazard Criteria For Episodic, Large Scale, Accelerated Bluff Retreat Conditions at the Big Lagoon Estates Subdivision, Tract 22, Block A, Humboldt County, SHN Consulting Engineers and Geologists, April 3, 1998.

### STAFF NOTES

#### I. Standard of Review.

Humboldt County has a certified Local Coastal Program. However, certain properties in the Big Lagoon area of Humboldt County are a part of an area of deferred certification, including those properties such as the subject property that are located seaward of Oceanview Drive and Park Drive, in the Big Lagoon Estates Subdivision. Therefore, the Coastal Commission has coastal development permit authority over the proposed development and the standard of review is the Coastal Act. See Exhibit Nos. 2 & 3.

#### II. Filing Determination.

The coastal bluffs adjacent to the Big Lagoon Estates Subdivision have historically been subject to periodic episodes of significant and rapid erosion. In January 1998 and continuing at least through April 1998, a renewed episode of rapid bluff erosion resulted in a +/-60-foot retreat of the coastal bluffs within the Big Lagoon Estates Subdivision. This extraordinary episode of bluff retreat has caused the top edge of the bluff to encroach to within 17 feet of the subject residential structure. Based on the proximity of the retreating bluff and the unpredictable nature of episodic erosion events, the Humboldt County Division of Building and Safety has determined that the subject 34-year-old structure was unsafe for human habitation. County Building and Safety officials have subsequently red-tagged the structure to document its uninhabitable status. The applicants have filed the subject application to allow them to move the structure out of immediate harms way and to salvage some use of the structure and property.

In light of the special circumstances that pertain to this project and the fact that the subject property is currently developed with the house that is proposed to be relocated, the Executive Director has waived the submittal of certain informational items and/or documentation that would normally be required to file an application before it could be scheduled for a

Commission hearing. See Exhibit Nos. 6, 7 and 8. These waived items include the following:

- Soils and Geology Report. The Commission normally requires a site specific geology report for most bluff top development. In this case, such a report would contain site specific information that: (1) explains the existing soils and geology of the lot; (2) provides a current estimate of future bluff retreat rate; and (3) provides an estimated use-life of the residential structure in the proposed location.
- Septic System Approval. The Commission normally requires written "conceptual" approval from the Health Department for a proposed septic system.
- Foundation Options. Given the need to relocate or remove the house again in the future when bluff retreat threatens the new house site, staff requested that the applicant provide information regarding the options to construct a special foundation that would: (1) facilitate the efficient future relocation or removal of the house, if necessary; (2) minimize excavation into the bluff so as not to exacerbate bluff instability; and (3) meet County building standards.

Although certain filing requirements have been **waived** to enable the application to be scheduled for the Commission's consideration, as soon as possible, staff has conveyed to the applicant the importance of this information to the Commission's evaluation of the project's consistency with the Coastal Act, and requested that the information be provided prior to the hearing. To prepare this recommendation, Commission staff has utilized other available information and documentation from other closely related CDP applications within the Big Lagoon Estates Subdivision.

SUMMARY OF STAFF RECOMMENDATION: Staff recommends approval of the proposed project with special conditions. The special conditions are necessary to make the project consistent with Sections 30210, 30211, 30230, 30231, 30251 and 30253 of the Coastal Act by: (a) ensuring continued public access to the beach consistent with public safety needs; (b) protecting coastal access opportunities; (c) protecting marine water quality; (d) maintaining the biological productivity of coastal waters; (e) ensuring that the scenic and visual qualities are maintained; and (f) ensuring that new development minimizes the risk to life and property in an area of high geologic hazard.

This staff recommendation is unusual in that it deals with an area that is subject to extraordinary and unpredictable episodes of rapid bluff retreat. The applicants wish to relocate an existing house out of immediate harms way, which would allow them to salvage some use of the existing home and property. The special conditions provide for the removal of the house and associated development once County Building and Safety Officials have determined that the house is unsafe for occupancy ("Yellow-tag" or "Red-tag"). To make it clear that the applicants are assuming all risk associated with

reestablishing a residence on the subject property, the special conditions require that the applicant execute and record a deed restriction that documents the landowners understanding of, and assumption of all risk and liability from the extraordinary geologic hazards present at the site. Further, the conditions require the landowner to monitor the bluff retreat and to remove the structures and ancillary development once the bluff retreat makes them unsafe and that they assume clean-up responsibility of any portion of site development that may end up on the beach below.

As conditioned, the project will minimize geologic hazards and assure stability consistent with Coastal Act Section 30253, will protect public access along beach below the bluff consistent with Sections 30210-30211, will protect the water quality and marine resources of the adjacent ocean consistent with Sections 30230-30231 by preventing any portion of the development from going over the bluff or by requiring expeditious removal of debris that may impact the beach.

STAFF RECOMMENDATION:

The staff recommends that the Commission adopt the following resolution:

Approval with Conditions.

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III. MOTION, STAFF RECOMMENDATION, AND RESOLUTION

1. Motion:

I move that the Commission approve Coastal Development Permit No. 1-98-075 subject to conditions.

2. Staff Recommendation of Approval:

Staff recommends a YES vote and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of Commissioners present.

2. Resolution to Approve Permit:

The Commission hereby grants a permit, subject to the conditions below, for the proposed development on the grounds that the development will be in conformity with the provisions of Chapter 3 of the California Coastal Act of 1976, is between the first public road and the sea and is in conformity with the public access and public recreation policies of Chapter 3 of the Coastal Act will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming with the provisions of Chapter 3 of the Coastal Act, and will not have any

significant adverse impacts on the environment within the meaning of the California Environmental Quality Act.

III. Standard Conditions. See Appendix A.

IV. Special Conditions.

1. Assumption of Risk, Waiver of Liability Indemnification Agreement, and Landowner Obligations and Responsibilities

PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant as landowner shall execute and record a deed restriction, in a form and content acceptable to the Executive Director, which shall provide 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 unconditionally waives any claims of liability against the California Coastal Commission, its successors in interest, advisors, officers, agents, and employees for any damage from such natural hazards or arising out of any work performed in connection with the permitted project;
- (c) The landowner agrees to indemnify and hold harmless the California Coastal Commission, 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 suit) arising out of the design, construction, operation, maintenance, existence or failure of the permitted project, including without limitation any and all claims made by any individual or entity or arising out of any work performed in connection with the permitted project; and
- (d) The landowner agrees that any adverse impacts to property caused by the permitted project shall be fully the responsibility of the applicant;
- (e) The landowner shall not construct any shoreline protective devices to protect the subject single-family residence, garage or septic system in the event that these structures are subject to damage, or other natural hazards in the future;
- (f) The landowner shall remove the garage and its foundations and the septic system and leach field when bluff retreat reaches the point where the structures are determined to be within an area identified by Humboldt County as a high to very high bluff failure hazard zone or its equivalent where structures are unsuitable for entry;
- (g) The landowner shall remove the house and its foundations when bluff retreat reaches the point where the structure is determined to be within an area identified by

Humboldt County either as a high to very high bluff failure hazard zone or a moderate to high bluff failure hazard zone or their equivalents where structures are deemed to be unsuitable for entry or human occupancy;

- (h) In the event that portions of the house, garage, foundations, leach field, septic tank, or other improvements associated with the residence fall to the beach before they can be removed from the bluff-top, the landowner shall remove all recoverable debris associated with these structures from the beach and ocean and lawfully dispose of the material in an approved disposal site. The landowner shall bear all costs associated with such removal.
- (i) That any changes to the proposed project or other development as defined in Coastal Act Section 30106 shall require an amendment to CDP 1-98-075 or an additional coastal development permit from the California Coastal Commission or its successor agency.

The document shall run with the land, bind all successors and assigns, and shall be recorded free of all prior liens and encumbrances, except for tax liens.

2. Monitoring and Reporting.

The landowner shall submit an annual report to the Executive Director on May 1, of each year that: (a) provides measurements of how close each component (i.e. house, garage, septic tank and leach field) of site development is to the top edge of the bluff; and (b) provides a general description of the magnitude and extent of any bluff retreat that has occurred during the previous year.

3. Procedure for Project Removal.

The landowner shall immediately notify the Commission or its successor agency in writing when bluff retreat reaches the point where either the garage and septic system are determined to be within an area identified by Humboldt County as a high to very high bluff failure hazard zone or its equivalent or where the house is determined to be within an area identified by Humboldt County as a moderate to very high bluff failure hazard zone. Within 45-days of any of the aforementioned circumstances, the applicant shall submit a complete coastal development permit application to remove the house, septic system and leach field and/or garage from the site.

4. Final Septic Approval.

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the executive director evidence that the Humboldt County Health Department has issued a final approval of the septic system and leach field.

V. FINDINGS AND DECLARATIONS.

The Commission hereby finds and declares as follows:

1. Project and Site Description.

The proposed development involves the temporary<sup>1</sup> relocation of an existing uninhabitable 931-square-foot, single-family residence (house) to a location on the lot farther away from the bluff edge where it can be inhabited, the removal of a wood deck structure, and the construction of a new septic system and leach field. As discussed in the geologic hazard finding below, the bluff edge in portions of the neighborhood where the subject parcel is located was subject to an extraordinary retreat event in February of 1998 that resulted in as much as 50- to 60 feet of bluff retreating within a three day period. The subject house is currently situated approximately 17 feet from the bluff edge. The Humboldt County Division of Building and Safety has deemed certain residential structures within the Big Lagoon Estates Subdivision as unsuitable for human habitation. The subject house has been red-tagged (declared unsafe for human habitation or entry) by Humboldt County Building and Safety officials because of its proximity to the edge of the retreating coastal bluff.

The subject property consists of a 16,900-square-foot parcel. According the application, approximately 10,725 square feet of the parcel remains on the bluff-top, while 6,175 square feet of the parcel lie seaward of the current top edge of the bluff face. The parcel is located seaward of Park Drive (the first public road), in the Big Lagoon Estates Subdivision, approximately 7 miles north of the City of Trinidad in Humboldt County. The Big Lagoon Estates Subdivision was created prior to passage of Proposition 20 and the Coastal Act of 1976. See Location Exhibit Nos. 1 - 4.

The subject property is separated from Park Drive by a separate intervening single-family residential parcel. Vehicular access is provided to the site by Roundhouse Creek Road, which terminates at the subject property. On-site vehicular access consists of a +/-30-foot-long gravel driveway. The application indicates that the pre-red-tagged use of the property was a "vacation or second home." The bluff-top portion of subject property is relatively flat (+/- 1% slope) and is currently developed with a 931-square-foot house, a "pit-type" septic system (landward of the existing house), a 648-square-foot garage, an existing deck (to be removed) and a gravel driveway. See Site Plan, Exhibit No. 4.

As discussed in greater detail in the Geologic Hazards section of this report, the coastal bluffs adjacent to the Big Lagoon Estates Subdivision have experienced periodic episodes of accelerated bluff erosion and failure. During the winter and early spring of 1998, an extraordinary bluff retreat event occurred which resulted in 50-60-feet of bluff retreat in

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<sup>1</sup> The applicants believe that, based on past experience, they can expect a life-use period of approximately 40 years.

the Big Lagoon Estates Subdivision area. As a result of this most recent episode of bluff retreat, several houses within the subdivision have been threatened and portions of other houses have fallen over the bluff. The unpredictable nature of episodic accelerated bluff retreat events continues to be a concern in this area.

The Commission recognizes that the bluffs adjacent to the Big Lagoon Estates Subdivision are subject to these unpredictable episodic accelerated bluff retreat events. In the past, the Commission has used the "planned retreat" approach to permit new residential structures on lots that are not expected to survive the normal use-life expectancy. The planned retreat approach recognizes the limited life-use expectancy of residential structures and includes provisions for the landowner to assume risk and liability associated with the development. This approach also includes provisions to relocate or demolish structures that are deemed unsuitable for their intended purpose or that pose a threat to coastal resources.

The Federal Emergency Management Agency (FEMA) has also recognized that certain properties within the Big Lagoon Estates Subdivision are in imminent danger due to the high probability that an accelerated bluff retreat event could potentially render these properties as unsuitable for human habitation. In fact, the FEMA has cited a number of such properties within the Big Lagoon Estates Subdivision as candidates for acquisition because of uncertain geologic stability. The FEMA program offers the selected property owners seventy-five percent of the fair market value in an effort to mitigate financial losses of affected property owners. The subject property has been identified by the FEMA for potential acquisition under the above-described circumstances. Acquisition of the property by the FEMA is subject to the property owner's willingness to participate in the program.

The existing house is currently situated approximately 17 feet from the bluff edge. The applicants propose to modify the configuration of the house and relocate the structure to a site approximately 47 feet from the top edge of the bluff face. The house is proposed to be relocated to a site within the "low to moderate bluff retreat hazard zone," as determined by a subdivision-wide SHN soils and geology report (prepared for Humboldt County (see Geologic Hazards Findings). The applicants intend to salvage the existing uninhabitable house and maximize their length of use of the house on the subject property by relocating the structure out of the immediate danger posed by the retreating bluff. Further, the applicants understand the uncertainty and risks involved in relocating the house within the "low to moderate bluff retreat hazard zone" and, in conversations with Commission staff, have expressed a willingness to assume all risk and liability associated with the relocation project.

Sewage disposal is currently provided by a "pit-type" septic system, which is located directly east (landward) of the current house location. The proposed house site conflicts with the existing septic system and necessitates that a new location for the septic system



is established. The site plan identifies the area to the north of the proposed house as a suitable area for a new septic system and leach field. The Humboldt County Health Department is the local permitting authority for sewage disposal systems. A representative of the Health Department has indicated,<sup>2</sup> in conversations with staff, that the area north of the proposed house site appears to be a suitable area for a new septic system and leach field. However, an official determination regarding septic suitability can only be made after a complete application has been submitted by the landowner. As discussed in the Filing Determination section of this report, staff has requested that the applicant provide a written "conceptual" approval of the proposed septic system prior to the Commission hearing on this matter.

The applicant also proposes to temporarily remove a portion of the east fence to facilitate the house relocation effort. Temporarily removing a portion of the east fence will allow workers and equipment to move more freely while constructing the foundation and during the actual movement of the structure. Finally, the applicants intend to remove and dispose of the existing wood deck. The deck is currently situated at the bluff's edge and must be moved as soon as possible to avoid potential adverse impacts to public access and other coastal resources.

## 2. Local Coastal Program Background.

The subject property is located within an "area of deferred certification" or ADC. The ADC consists of a 36-lot area located on the west side of Ocean View Drive in the Big Lagoon Estates Subdivision. The ADC was created in 1980 when the Commission refused to certify this portion of the Humboldt County, North Coast Area Land Use Plan, pending resolution of, among other things, shoreline erosion issues in a manner consistent with the Coastal Act. Since the County did not accept the Commission's suggested modifications, this geographic area became an ADC. Consequently, the authority to grant coastal development permits within the Big Lagoon Estates Subdivision ADC is retained by the Coastal Commission. See Exhibit No. 2 – Area of Deferred Certification Map – Big Lagoon Estates Subdivision.

## 3. Local Approval.

The house relocation project requires a Special Permit for Design Review from Humboldt County. The Humboldt County Design Review process is limited to evaluating the project proposal for its aesthetic quality and the development's respective impact on scenic and visual resources. Apart from a County Health Department approval, no other local discretionary permit is required for the project. A Special Permit would typically be required prior to filing an application and scheduling it for Commission hearing. Due to the special circumstances involved in this development proposal, and the fact that the

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<sup>2</sup> Telephone conversation between Charles "Doby" Class, Humboldt County Health Department, and Darryl Rance, California Coastal Commission, December 4, 1998.

subject property is currently developed with the existing house, the Executive Director has **waived** the need to submit proof of County approval of a Special Permit as a filing requirement. An analysis of the proposed project's consistency with the Coastal Act Visual Resource Policies is contained herein.

4. New Development.

Coastal Act Section 30250(a) states:

*(a) New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. In addition, land divisions, other than leases for agricultural uses, outside existing developed areas shall be permitted only where 50 percent of the usable parcels in the area have been developed and the created parcels would be no smaller than the average size of surrounding parcels.*

Coastal Act Section 30250(a) requires it in applicable part that new development be located in or near areas able to accommodate or where it will not have significant adverse effects, either individually, or cumulatively, on coastal resources.

The subject property was developed with the house proposed for relocation circa 1961. The Big Lagoon Water Company provides water service for the existing, uninhabitable ("red-tagged") house. The Humboldt County Health Department has indicated that it is probable that a suitable area exists on the property for the construction of a new septic system and leach field to accommodate the house relocation project. However, the Health Department has not yet received a complete application to make a formal determination on the site's suitability for a septic system.<sup>3</sup> In case the Health Department's full review of the septic system yields the unexpected result that a septic system cannot be approved on the site, the Commission attaches Special Condition No. 4. The condition requires final septic approval from the Health Department prior to issuance of the CDP to ensure that the house is neither relocated nor used again as a residence if there is not a suitable means to handle the sewage generated by the house. Thus, the Commission finds that the project, as conditioned, is consistent with Section 30250(a) to the extent that adequate services will be available to accommodate the project.

5. Geologic Hazards.

Coastal Act Section 30253 states, in applicable part, that:

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<sup>3</sup> Telephone conversation between Charles "Doby" Class, Humboldt County Health Department, and Darryl Rance, California Coastal Commission, December 4, 1998.

*New development shall:*

*(1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.*

*(2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.*

As previously stated, the house relocation project is located within the Big Lagoon Estates Subdivision. Following the 1997/1998-winter storm season, Humboldt County commissioned SHN Consulting Engineers and Geologists to prepare an area-wide geotechnical analysis of the coastal bluffs along the Big Lagoon Estates Subdivision. The report analyzed the geologic hazard criteria for large scale, episodic, accelerated bluff retreat conditions. The intended purpose of the SHN report was for the County Building and Safety Division to establish bluff failure hazard zones at various distances from the bluff's edge. The hazard zone designations are intended to be used specifically by County officials to assist their evaluation of public safety criteria under emergency conditions and only for short periods of accelerated bluff erosion. The hazard zone designations do not apply to the initial siting of new development nor do they apply to the potential for catastrophic failure due to seismic shaking. Because of the dynamic nature of episodic bluff erosion events, the location of the hazard zones should be expected to change and will need to be constantly evaluated by County officials during and immediately following accelerated bluff retreat events.

The SHN Report establishes three (3) Bluff Failure Hazard Zones as follows:

1. High to Very High – This bluff failure hazard zone extends **30 feet** from the top edge of the bluff. This area is considered to be subject to excessive risk to permanent structures and their occupants. Catastrophic, sudden failure of the bluff top can occur without warning. Humboldt County Building and Safety Officials “Red-Tag” or deem **unsuitable for entry or human occupancy** structures within the High to Very High bluff failure hazard zone.
2. Moderate to High – This bluff failure hazard zone extends **from 30 to 40 feet** from the top edge of the bluff. This area is considered to be subject to substantial risk to permanent structures and their occupants. It is recommended that any decks located within this area should be structurally disconnected from permanent structure. If bluff failure occurs within the High to Very High zone, this area should be evacuated immediately until reevaluated by County officials. Humboldt County Building and Safety Officials may “Yellow-Tag” or deem **unsuitable for human occupancy** most structures within the Moderate to High bluff failure hazard zone.

3. Low to Moderate – This bluff failure hazard zone extends **beyond 40 feet** from the top edge of the bluff. This area is subject to significant risk to permanent structures and their occupants during accelerated bluff erosion episodes. Existing residential structures within this area **may be suitable for human occupancy**.

The existing structure is currently located approximately 17 feet from the top edge of the bluff and within the High to Very High Bluff Failure Hazard Zone. The relocation project proposes to move the structure 30 feet landward and away from the retreating coastal bluff. As proposed, the relocated structure would be situated approximately 47 feet from the top edge of the bluff within the Low to Moderate Bluff Hazard Zone. A ten-foot front-yard setback from the eastern property boundary is proposed.

A geologic report<sup>4</sup> prepared for a property located approximately 336 feet (4 lots away) to the north (CDP No. 1-90-142, LANSING) indicates that this portion of the Big Lagoon Estates Subdivision is a part of a 100-foot high marine coastal terrace consisting of sedimentary sand and gravel. In summary, the report indicates that coastal erosion and the resulting bluff retreat is caused by direct wave attack at the base of the bluffs. As the supporting sand at the base of the bluff is washed out to sea, vertical slabs of the bluff face fall the beach below.

The report indicates that the bluff retreat along the Big Lagoon Estates Subdivision appears to be episodic in nature. The bluffs may have retreated by as much as 20 to 30 feet during the winter storm periods of 1850-1851, 1906-1907, 1940-1941, and 1982-1984. Beginning in January 1998 through at least April 3, 1998, a renewed episode of rapid bluff erosion resulted in a retreat of approximately 60 feet of the top edge of the bluff within the Big Lagoon Estates Subdivision.<sup>5</sup> Following a major retreat event, beach sand is replenished in the form of a back beach berm. The back beach berm protects the base of the bluff from direct wave attack, slowing or suspending the retreat process. During this time, bluff top failure may occur, but large-scale bluff retreat is not expected.

The geologic report for the Lansing parcel references the previous work of D.C. Tuttle who published a 1981 Sea Grant report entitled: "Investigation of Methods for Determining Coastal Bluff Erosion." Tuttle established a common baseline for 17 measurement stations along these bluffs using aerial photographs dated 1931, 1941, 1942, 1962, and 1974. Tuttle's data indicates that the average bluff retreat for all the measurement stations was 95 feet between 1931 and 1974. The geologic report further indicates that the bluff eroded another 15 feet between 1974 and 1984. The updated

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<sup>4</sup> Geologic Evaluation for APN 517-241-28, SHN Consulting Engineers and Geologists, February 28, 1985; Update for Geologic Evaluation Focusing On Coastal Bluff Stability for APN 517-241-28, Big Lagoon Estates Subdivision, SHN Consulting Engineers and Geologists, August 15, 1990.

<sup>5</sup> Geologic Hazard Criteria For Episodic, Large Scale, Accelerated Bluff Retreat Conditions at the Big Lagoon Estates Subdivision, Tract 22, Block A, Humboldt County, SHN Consulting Engineers and Geologists, April 3, 1998.

geologic report (LANSING) indicates that no discernable change in the location of the bluff edge was detected between 1985 and 1990. (A change of a one-foot increment would be detectable.) Based on this information, the bluffs have eroded 110 feet between 1931 and 1990, which amounts to an annual average of 1.86 feet/year.

Earlier data appears to suggest that periods of accelerated bluff erosion may be cyclical and episodic with reoccurrence every 30-60 years. However, the referenced 30-60 year time frame for reoccurrence of accelerated bluff retreat episodes may not be very precise. Only 14 years (1984) has passed since the most recent occurrence of rapid bluff retreat and the amount of bluff face lost in 1998 at the least doubles the maximum estimated amount of historic bluff retreat within this area. Barring the unknown amount of bluff retreat that may have occurred between 1990 and 1998, and by factoring in the 60 feet of bluff retreat that occurred in 1998, the bluffs have eroded 170 feet since 1931, which amounts to an average of 2.5 feet/year. Because of the unpredictable nature of episodic bluff retreat, and the lack of a geologic evaluation of the bluff retreat specific to this parcel, 2.5 feet/year average can not be used as a reliable forecast of the amount of bluff retreat that may occur on this parcel in the future. In addition, because the 60-feet of bluff retreat which occurred in 1998 was more than double the amount of bluff that had been documented as occurring in any previous episodic bluff failure in the Big Lagoon area in the past, the information available appears to suggest that future bluff failure events may occur more frequently and with a greater intensity than previously experienced.

The existing deck is in immediate danger because of its current location at the bluff's edge and is proposed for removal. The existing garage that is to remain in place, is situated approximately 30-feet from the top edge of the bluff within the "Moderate to High" bluff failure hazard zone. Although the garage is currently located within the "Moderate to High" hazard zone, it is not proposed for human occupancy. The proposed relocation of the existing house structure will provide an approximately 47-foot setback from the top edge of the coastal bluff and is proposed within a "Low to Moderate" bluff failure hazard zone. As discussed previously in this report, Humboldt County Building and Safety officials "Yellow-Tag" (unsuitable for human habitation) residential structures at 40 feet from the top edge of the bluff and "Red-Tag" (unsuitable for entry of human habitation) residential structures at 30 feet from the top edge of the bluff.

a. Assumption of Risk and Waiver of Liability.

The applicant understands that the subject property will inevitably be lost to the sea due to continuing bluff retreat. However, no one can precisely predict at what point in time the relocated house will be unsafe for human habitation, particularly because the bluff failure appears to be episodic in nature. Therefore, the Commission attaches In Special Condition No. 1 which requires, in part, that (a) the landowner record a deed restriction that acknowledges the extraordinary geologic hazards present at the site; (b)

the landowner waives all claim of liability against the Commission for damages that may occur as a result of such natural hazards; (c) the landowner agree to indemnify and hold harmless the Commission; and (d) the landowner agrees that any adverse impacts caused by the project shall be the responsibility of the applicant.

b. Prohibition Against Shoreline Protective Devices.

Coastal Act Section 30253 requires, that new development minimize risk to life and property in areas of high geologic hazard, assure stability and neither create nor contribute significantly to erosion and geologic instability. Further, Section 30253 dictates that new development not in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.

The 1985 Geology report prepared for the Lansing project states on page No. 6 that: "structural stabilization of these coastal bluffs is considered to be economically and environmentally unfeasible." No seawall or other protective device currently exists along the bluff adjacent to the subdivision. Since none currently exists, and since any protective device would need to overcome the feasibility problems cited in the 1985 geotechnical report prepared for the Lansing property, any future construction of a seawall or other protective device along the bluff would substantially alter the bluff's natural landforms. Thus, approval of the proposed development in a manner that would allow for the construction of a future seawall along the bluff would be inconsistent with the prohibition of Section 30253 that new development not in any way require the construction of protective devices that would substantially alter natural landforms along bluffs. Therefore, the Commission attaches Special Condition No. 1(e) which requires that the applicant record a deed restriction preventing the landowner from constructing any shoreline protective device to protect the subject single-family residence or septic system from erosion, storm wave damage or other natural hazards.

c. Future Removal of the Project's Major Elements.

The subject single-family residence was constructed circa 1961 and is about 37 years old. As evidenced by the 60-feet of bluff retreat that occurred in February of 1998, and the information regarding bluff retreat in the SHN and Lansing geotechnical reports, it is apparent that, even if relocated, the subject structure will not be safe for human occupancy for the 75-year economic life span ordinarily projected for newly constructed single-family residences. In fact, the subject structure may not be safe for human occupancy within a much shorter period of time. Seven more feet of bluff retreat along a certain portion of the bluff edge of the property would shorten the setback of the relocated house below the threshold distance that the County considers to be the minimum to allow for safe human occupancy. The garage is already at the limit where any further reduction of the setback would cause the County to declare the structure unsafe to enter.

Furthermore, allowing the house, the garage, the septic system and the leach lines to become abandoned and fall to the beach below: (1) does not minimize the risk to beach users in a manner consistent with Coastal Act Section 30253; (2) does not allow continued public access of the beach in a manner consistent with Coastal Act Sections 30210 and 30211; (3) does not ensure the biological productivity and quality of marine waters consistent with Coastal Act Sections 30230 and 30231; and (4) is not compatible with the scenic character of the surrounding area under Coastal Act Section 30251.

Based on the information available, it appears that the circumstances necessary to trigger the removal of the house must be when the top edge of the retreating bluff encroaches to a point where the house is located within a moderate to high bluff failure hazard zone. At this point County Building and Safety Officials will determine that the house poses a substantial risk to the health, safety and welfare of its' occupants and is unfit for human habitation. This County determination will result in either a yellow-tag or red-tag status. County Building and Safety Officials will continue to closely monitor the suitability of the bluffs within the Big Lagoon Estates Subdivision to support habitable structures.

The Commission finds that in order to fully implement the concept of planned retreat and to ensure that the subject development is removed from the site in a manner consistent with the policies of the Coastal Act, that special conditions are required. Special Condition 1(g) requires the landowner remove the house and its foundations when bluff retreat reaches the point where the structure is determined to be within an area identified by Humboldt County either as a high to very high bluff failure hazard zone or a moderate to high bluff failure hazard zone or their equivalents where structures are deemed to be unsuitable for entry or human occupancy. Special Condition 1(h) requires that in the event that portions of the house, garage, foundations, leach field, septic tank, or other improvements associated with the residence fall to the beach before they can be removed from the bluff-top, the landowner shall remove all recoverable debris associated with these structures from the beach and ocean and lawfully dispose of the material in an approved disposal site. The landowner shall bear all costs associated with such removal. Special Condition No. 2 requires the landowner to submit an annual report to the Executive Director on May 1, of each year that: (a) provides measurements of how close each component (i.e. house, garage, septic system and leach field) of site development is to the top edge of the bluff; and (b) provides a general description of the magnitude and extent of any bluff retreat that has occurred during the previous year.

Furthermore, for all the reasons listed above, the existing 648-square-foot garage should also be subject to the planned retreat concept. The existing garage is not intended for human habitation but is currently situated approximately 30 feet from the top edge of the bluff. Consequently, Special Condition No. 1(f) requires the landowner to remove the garage and its foundations and the septic system and leach field when bluff retreat reaches the point where the structures are determined to be within an area identified by

Humboldt County as a high to very high bluff failure hazard zone or its equivalent where structures are unsuitable for entry. To implement removal of the garage from the site, Special Condition No. 3 requires the landowner to immediately notify the Commission or its successor agency in writing when bluff retreat reaches the point where either the garage and septic system are determined to be within an area identified by Humboldt County as a high to very high bluff failure hazard zone or its equivalent or where the house is determined to be within an area identified by Humboldt County as a moderate to very high bluff failure hazard zone and within 45-days shall submit a complete coastal development permit application to remove the house, septic system and leach field and/or garage from the site.

d. Future Development Condition and Bluff Retreat Monitoring Requirement.

The subject property is located within a dynamic environment where sudden, unexpected and unpredictable events have the potential to change the suitability of the site for human habitation. As evidenced by the events of February, 1998, an episodic event of accelerated bluff retreat can occur at any time. At the present time, the retreating bluff edge does not endanger the footprint of the house relocation site, the newly sited septic system or the garage. However, given the dynamic nature of episodic accelerated bluff retreat events, the Commission finds that it is necessary to monitor the rate and change of erosion of the coastal bluff directly adjacent to the applicant's property. Therefore, Special Condition No. 2 requires that the landowners develop and implement a monitoring plan, acceptable to the Executive Director, to determine when the bluff retreats to within 25-feet of the dwelling, the septic system and leach field or the garage.

These monitoring and reporting requirements will enable the applicants and the Commission to more quickly identify when the bluff has retreated to the point that triggers the need for removal of the structures. In so doing, the monitoring and reporting requirements will help ensure that as much time as possible will be available to arrange for removal of the structures before bluff retreat undermines them completely and causes them to

Finally, because of the unpredictable nature of episodic accelerated bluff retreat events, the Commission cannot determine exactly when, or how much the bluff will retreat in any given episode. Past occurrences of bluff failure within the Big Lagoon Estates Subdivision illustrate the potential that accelerated bluff erosion may undermine structures. Despite efforts to remove structures ahead of time, all or portions of the structures may fall to the beach below and result in adverse effects to (a) existing public access opportunities along the beach and (b) water quality. Therefore the Commission attaches Special Condition 1(h) which requires that in the event that portions of the house, garage, foundations, leach field, septic tank, or other improvements associated with the residence fall to the beach before they can be removed from the bluff-top, the landowner shall remove all recoverable debris associated with these structures from the



beach and ocean and lawfully dispose of the material in an approved disposal site. This condition further requires that the landowner shall bear all costs associated with such removal.

e. Summary of Geologic Hazard Findings.

In summary, the Commission finds that the proposed development, as conditioned, is consistent with Section 30253 to the extent that it will be sited in a Low to Moderate bluff retreat hazard zone and will neither create nor contribute significantly to erosion and geologic instability of the site or surrounding area.

6. Public Access.

The proposed project is between the nearest public road and the sea. Section 30604© requires every permit issued for any development between the nearest public road and the sea to include a specific finding that the development is in conformity with the public access and public recreation policies of Chapter 3.

Coastal Act Section 30210 states:

*In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.*

Coastal Act Section 30211 states:

*Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.*

Section 30210 of the Coastal Act requires maximum access and recreational opportunities to be provided for all the people consistent with the need to protect public rights, rights of private property owners and natural resource areas. Section 30211 of the Act requires that development not interfere with the public's right to access gained by use or legislative authorization. In applying Sections 30210 and 30211, the Commission is limited by the need to show that any denial of a permit application based on this section, or any decision to grant a permit subject to special conditions requiring public access is necessary to avoid or offset a project's adverse impact on existing or potential access.

The applicants propose to relocate the existing house approximately 30 feet landward and away from the retreating bluff edge. The bluff face presents a 100+ foot vertical drop to

the beach below and there is no opportunity for public access to and along the sea from the bluff top of the subject property. However, Big Lagoon County Park is located immediately north of the Big Lagoon Estates Subdivision. Access to the Big Lagoon State Park is located approximately ½ mile from the Big Lagoon Estates Subdivision. Big Lagoon County Park is located adjacent to the ocean and provides access from the park south, below the bluffs adjacent to the subject property, to Agate Beach and at Patrick's Point State Park and to Big Lagoon spit on the west side of Big Lagoon.

Overtime, the house relocation project could eventually have an adverse effect on public access unless the house and associated development are removed from the site. As discussed in greater detail in the Geologic Hazards section of this report, the coastal bluff immediately adjacent to the subject property is subject to extraordinary rates of bluff retreat and can experience sudden and unpredictable occurrences of episodic accelerated bluff retreat. Episodic accelerated bluff retreat events could undermine the structure and septic system. Once undermined by the retreating bluff, debris from existing structure and, or effluent from the septic system has the potential to fall to the beach below and thus compromise the ability of the public to safely use the beach.

Accordingly, the Commission finds that certain mitigation measures are necessary to ensure the quality and availability of public access opportunities consistent with the access and recreation policies of Chapter 3 of the Coastal Act. Special Condition No. 2 requires the landowner to submit an annual report to the Executive Director on May 1, of each year that: (a) provides measurements of how close each component (i.e. house, garage, septic system and leach field) of site development is to the top edge of the bluff; and (b) provides a general description of the magnitude and extent of any bluff retreat that has occurred during the previous year. Special Condition No. 1(f) requires the landowner to remove the garage and its foundations and the septic system and leach field when bluff retreat reaches the point where the structures are determined to be within an area identified by Humboldt County as a high to very high bluff failure hazard zone or its equivalent where structures are unsuitable for entry. Special Condition No. 1(g) requires the landowner to remove the house and its foundations when bluff retreat reaches the point where the structure is determined to be within an area identified by Humboldt County either as a high to very high bluff failure hazard zone or a moderate to high bluff failure hazard zone or their equivalents where structures are deemed to be unsuitable for entry or human occupancy.

The project, as conditioned to ensure continued public access to the beach consistent with public safety needs,, will not result in significant adverse impacts to public access opportunities. Therefore, the Commission finds that the proposed project, which does not include any new public access, is consistent with the public access policies of the Coastal Act.

7. Visual Resources.

Coastal Act Section 30251 states:

*The scenic and visual qualities of 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 such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.*

Coastal Act Section 30251 requires in applicable part that permitted development be sited and designed to protect views to and along the ocean and scenic coastal areas; that development minimize the alteration of natural landforms; that development be visually compatible with the character of the surrounding area; and that new development in highly scenic areas be subordinate to the character of its setting.

The subject property is not visible from Highway 101. However, the 130-foot-wide property does allow views of the sea from Ocean View Drive. The property is currently developed with the house that is proposed for relocation. As proposed, the relocated house would leave a 41-foot-wide distance between the residence and the northern property boundary and a 21-foot-wide distance between the existing detached garage (to remain in-place) and the southern property boundary (approximately 47% of the property's width). In addition, the house would not be visible from the beach. Furthermore, the development minimizes the alteration of natural landforms since only minimal grading is necessary on the level building site. Moreover, the existing 931-square-foot house is compatible with the character of the surrounding homes in the area. Lastly, the project will utilize the existing underground utilities, which will further ensure that the development will be compatible with the character of the surrounding area. Thus, the Commission finds that proposed development is consistent with Coastal Act Section 30251.

8. Prejudice to Humboldt County LCP.

As previously discussed, the subject property lies within an area of deferred certification because the Commission did not approve the portion of the Humboldt County, North Coast Area Land Use Plan which covers the 36-lot Big Lagoon Estates Subdivision where the subject property is located. See Exhibit No. 2. This area remains uncertified, pending further study of shoreline erosion and the development of policy and implementation mechanisms to protect the sensitive coastal resources. The Commission's 1981 findings for denial of this portion of the North Coast Land Use Plan

state in applicable part that: "a revised plan for the area should review and consider the results of shoreline erosion studies presently underway at Big Lagoon." The proposed development is consistent with the Commission's previous findings as the area-wide soils and geology report incorporate and updates the results of these on-going shoreline erosion studies.

Section 30604 of the Coastal Act authorizes permit issuance of the project if it is consistent with Chapter 3 of the Coastal Act and if the Commission finds that the permitted development will not prejudice the ability of the local government to prepare or implement a local coastal program that is in conformance with Chapter 3 of the Coastal Act. As discussed above, approval of the project as conditioned is consistent with the Chapter 3 Policies of the Coastal Act, including Sections 30210 to provide public access, Section 30211 to protect public access where acquired through use, Section 30250(a) to ensure that new development has adequate services to accommodate it, and without adverse impacts to coastal resources, Section 30251 to ensure that new development is sited and designed to protect public views, minimize landform alteration, and be compatible with the character of the surrounding area, and finally, 30253 to ensure that new development minimizes risks to life and property in an area of high geologic hazard. Thus, approval of the project, as conditioned, will not prejudice the ability of Humboldt County to prepare a LCP for this area that is in conformity with Chapter 3 of the Coastal Act.

9. California Environmental Quality Act (CEQA).

Section 13096(a) of the Commission's Administrative Regulations requires Commission approval of a coastal development permit application to be supported by findings showing that the permit, as modified by any conditions of approval, is consistent with any applicable requirement of the CEQA. Section 21080.5(d)(2)(a) of CEQA prohibits approval of proposed development if there are feasible alternatives or feasible mitigation measures available, which would substantially lessen any significant adverse effect the proposed development may have on the environment.

The proposed project has been conditioned to be found consistent with the resource protection policies of the Coastal Act and the requirements of Section 21080.5(d)(2)(i) of the CEQA. The Special Conditions will minimize project-related adverse environmental impacts. As conditioned, there are no feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impact that the house relocation project may have on the environment. Thus, the Commission finds that the project, as conditioned to mitigate the identified impacts, can be found to be consistent with the requirements of the Coastal Act to conform to CEQA.

APPENDIX A

STANDARD CONDITIONS

1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. Expiration. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
3. Compliance. All development must occur in strict compliance with the proposal as set forth in the application for permit, subject to any special conditions set forth below. Any deviation from the approved plans must be reviewed and approved by the staff and may require Commission approval.
4. Interpretation. Any questions of intent of interpretation of any condition will be resolved by the executive director or the Commission.
5. Inspections. The Commission staff shall be allowed to inspect the site and the development during construction, subject to 24-hour advance notice.
6. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
7. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

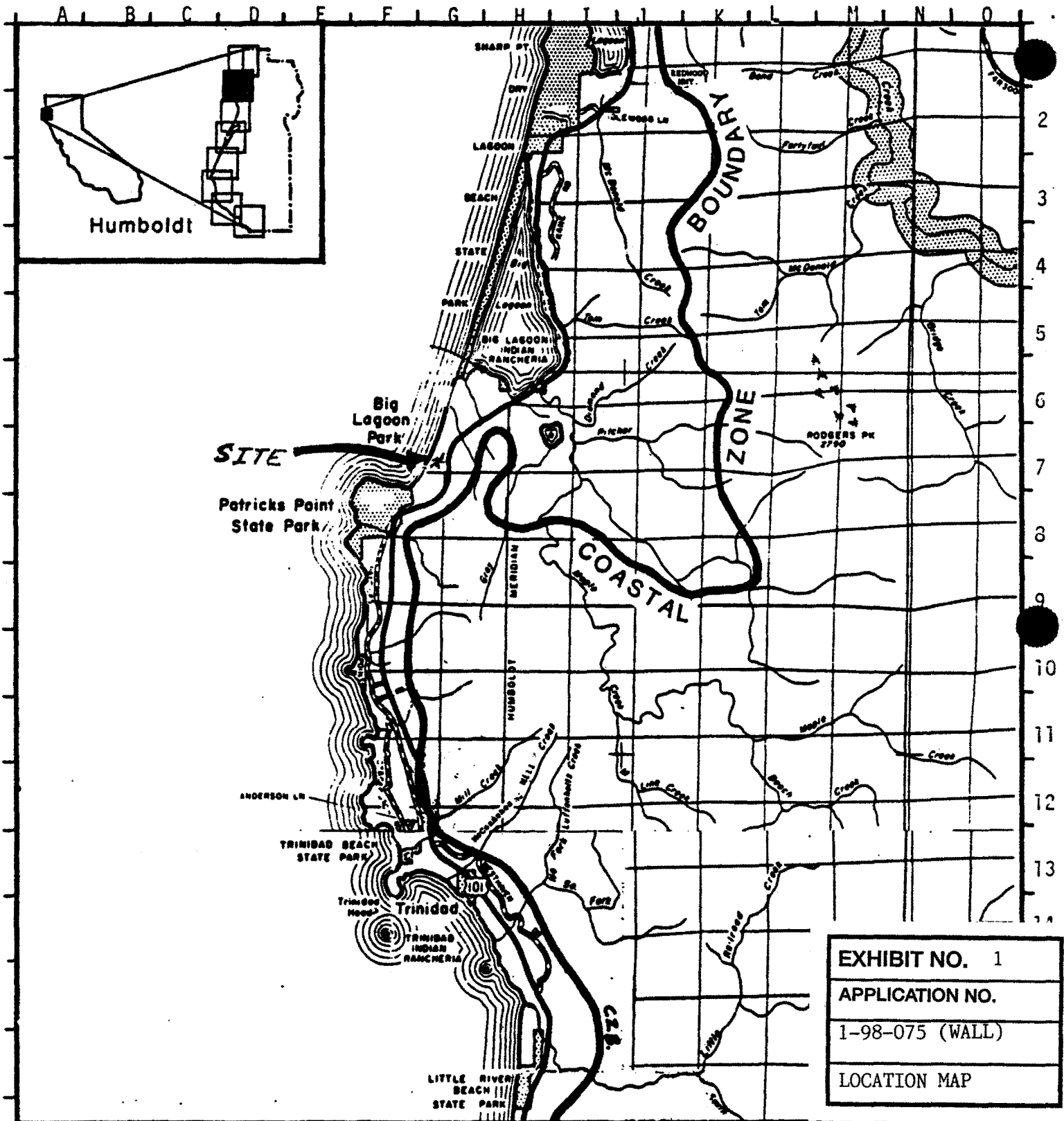


EXHIBIT NO. 1
APPLICATION NO.
1-98-075 (WALL)
LOCATION MAP

# North Coast District – Humboldt Co.

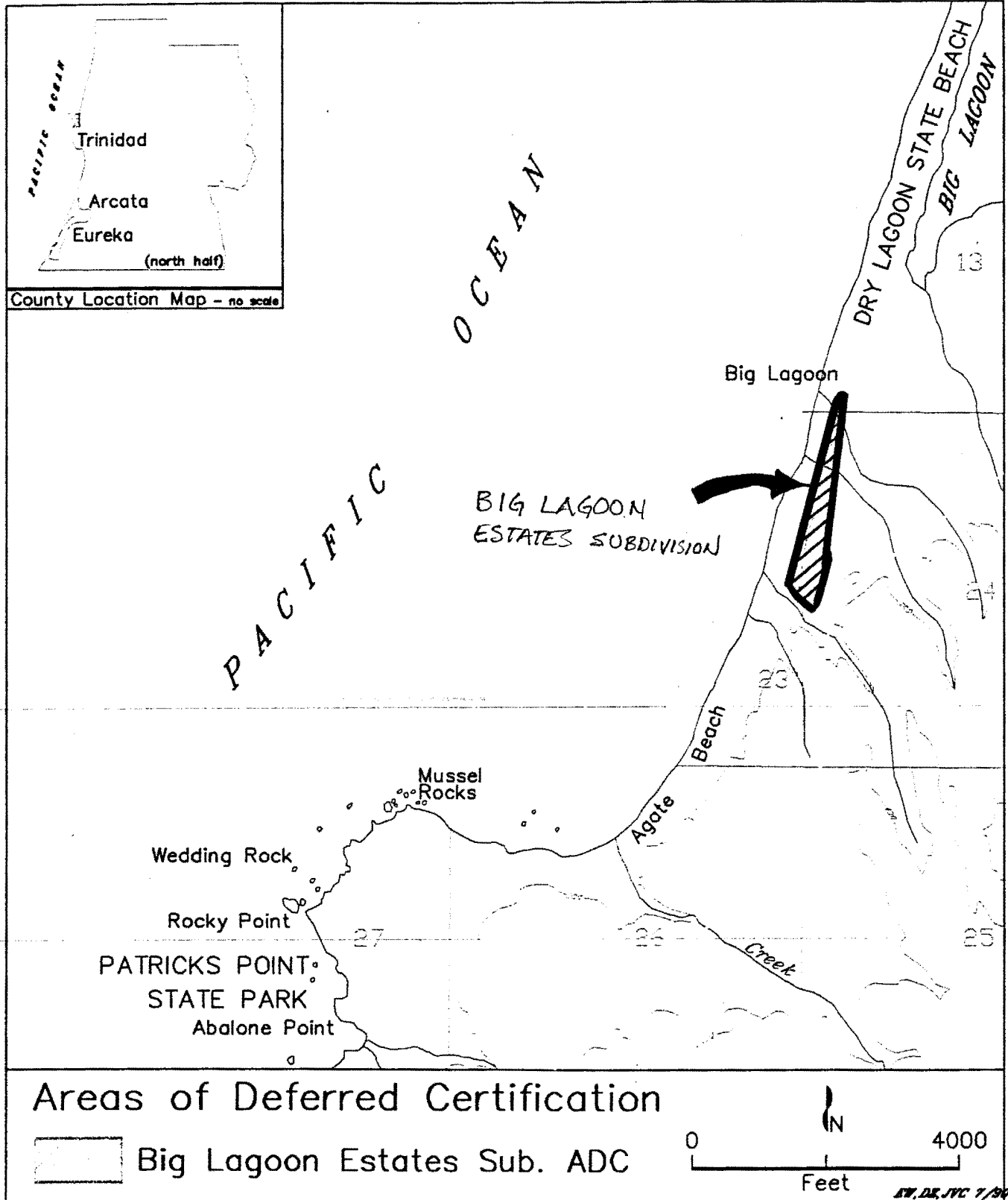


EXHIBIT NO. 2

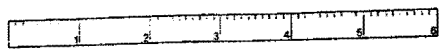
APPLICATION NO.

1-98-075 (WALL)

AREA OF DEFERRED  
CERTIFICATION

EXHIBIT NO. 3
APPLICATION NO.
1-98-075 (WALL)
APN MAP

N 1/10 OF AN INCH



1-800-345-7334

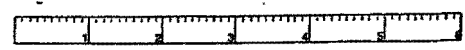
SEC 24, 9N 1W  
(BIG LAGOON PARK SUBDVN, TRACT 22, BLK. A.)

517-24

1" = 100'  
6/31/82

L.S. BY JO  
MAY 1982, 26

SCALE IN 1/10 OF AN INCH



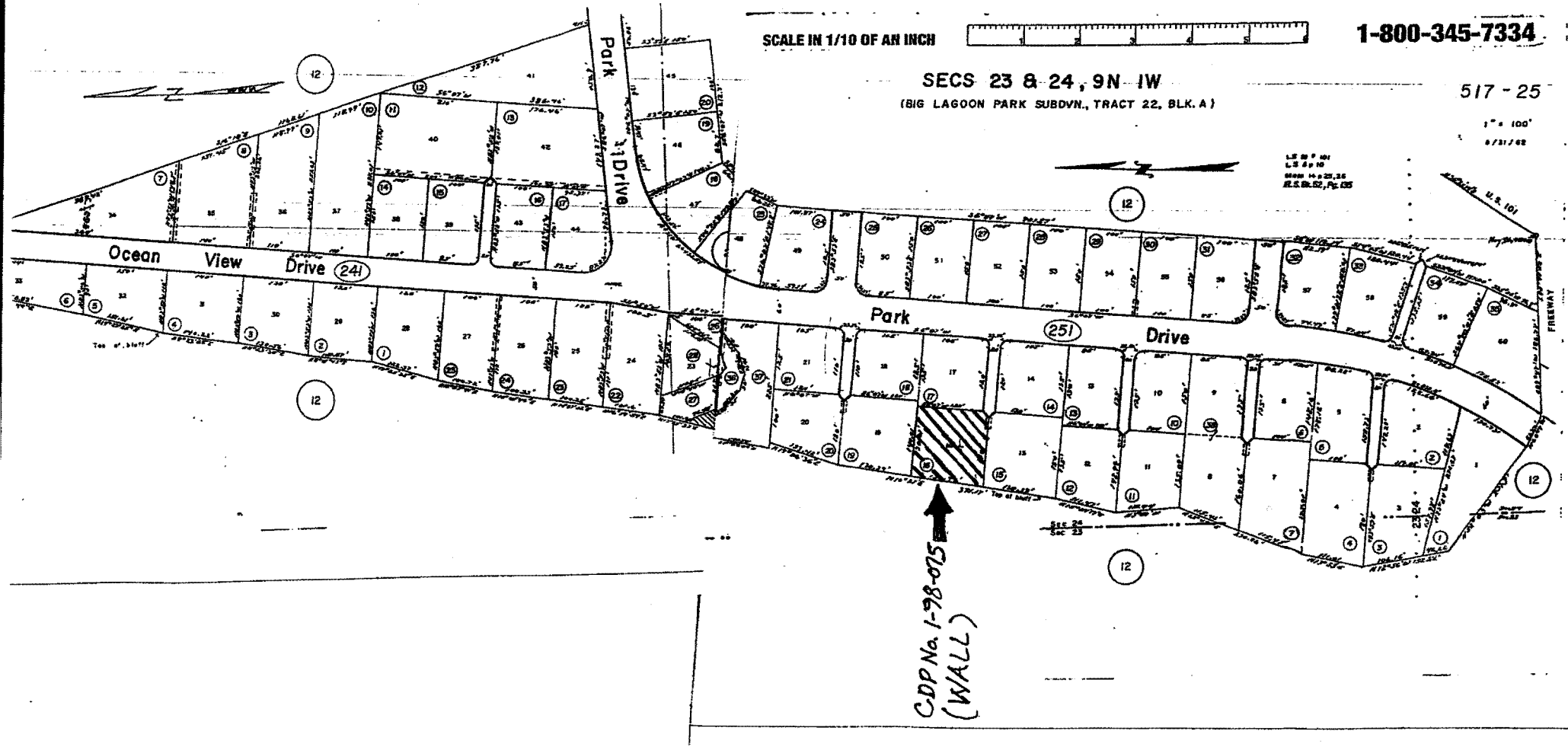
1-800-345-7334

SECS 23 & 24, 9N 1W  
(BIG LAGOON PARK SUBDVN, TRACT 22, BLK. A.)

517-25

1" = 100'  
6/31/82

L.S. BY JO  
L.S. BY JO  
MAY 1982, 26  
R.S. BY JO, Pg. 25

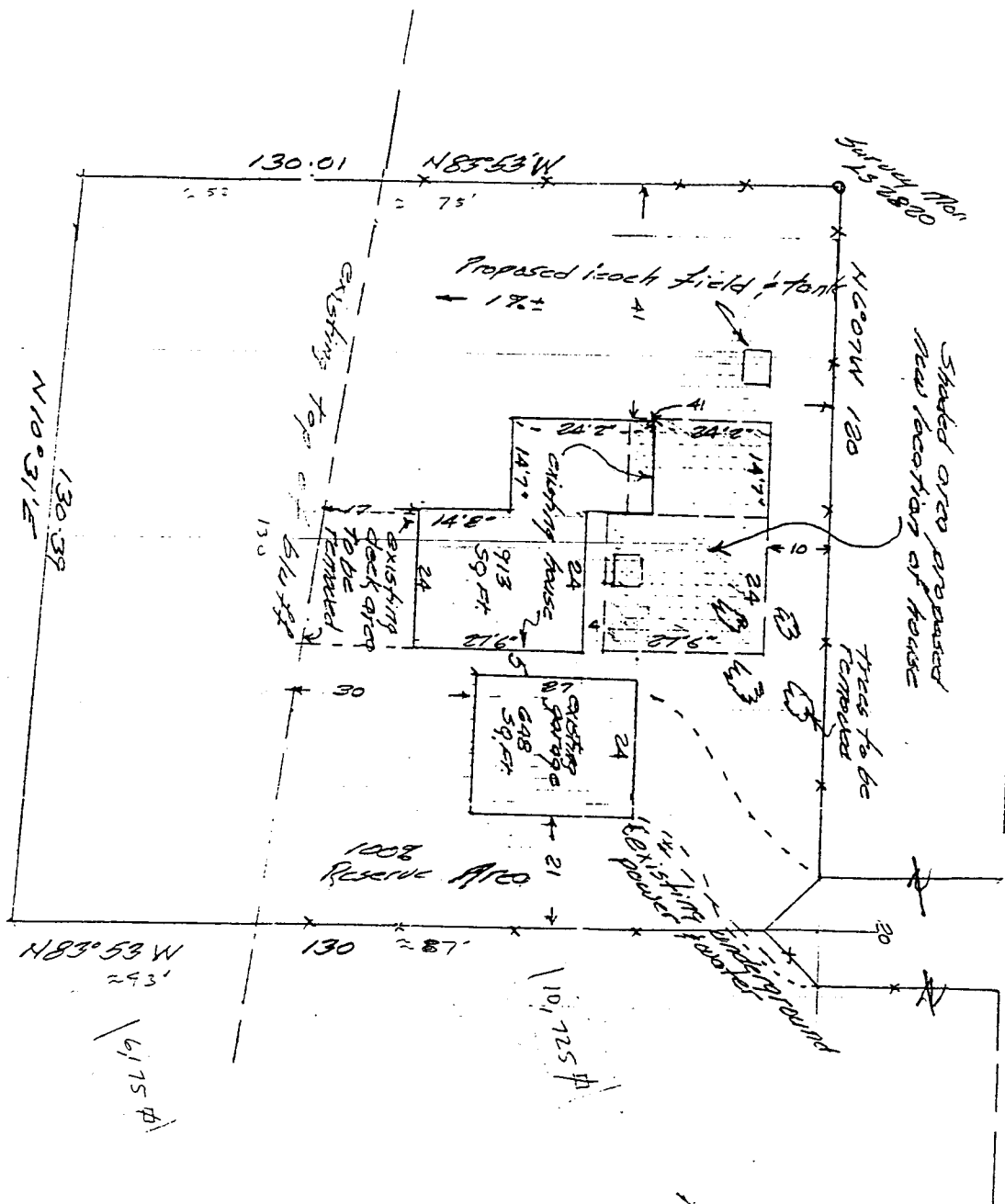


CDP No. 1-98-075  
(WALL)



NORTH

Randall Creek Rd.



PACIFIC OCEAN

EXHIBIT NO. 4
APPLICATION NO.
1-98-075 (WALL)
SITE PLAN



RECEIVED

NOV 02 1998

CALIFORNIA  
COASTAL COMMISSION

Reference: 098070

April 3, 1998

Mr. Kirk Girard, Planning Director  
Mr. Todd Sobolik, Chief Building Inspector  
County of Humboldt  
3915 H Street  
Eureka, CA 95501

RECEIVED

APR 03 1998

HUMBOLDT COUNTY  
PLANNING COMMISSION

**SUBJECT: GEOLOGIC HAZARD CRITERIA FOR EPISODIC, LARGE SCALE,  
ACCELERATED BLUFF RETREAT CONDITIONS AT THE BIG  
LAGOON PARK SUBDIVISION, TRACT 22, BLK. A, HUMBOLDT  
COUNTY, CALIFORNIA**

Dear Sirs:

Beginning in January, 1998, and continuing to the present time, a renewed episode of rapid coastal bluff erosion resulted in up to approximately 60 feet of localized eastward retreat of the top edge of the coastal bluff within the Big Lagoon Park subdivision.

Historically, typical bluff retreat episodes appear to occur over the course of 2 to 3 winters. During this time, a large, extended storm event can account for as much as 30 to 100 feet of bluff retreat. Bluff retreat episodes are generally preceded by a period of several weeks of sand depletion on the beach. This results from tidal and storm action in connection with unusually high surf. As beach sand is removed, seawave run-up attacks the base of the bluff, slabs of bluff materials break away from the bluff face, fall to the beach and are washed away by subsequent waves. Following a major retreat event, beach sand may be replenished and a back beach berm developed. The berm protects the base of the bluff face from direct wave attack and the retreat process is slowed or suspended.

A review of historic documents in addition to air photo data allows an assessment of bluff retreat episodes dating back to 1850. Early written accounts document periods of accelerated coastal erosion in 1850-1851 and 1906. Examination of air photos, and our observations, indicate periods of rapid bluff retreat occurred during the periods 1940-1942 and 1982-1984. This data suggests that periods of accelerated erosion are cyclic and episodic. It is interesting to note that the last four bluff retreat episodes at Big Lagoon have occurred concurrent with documented El Niño conditions.

EXHIBIT NO. 5
APPLICATION NO.
1-98-075 (WALL)
GEOLOGIC REPORT

Mr. Kirk Girard  
April 3, 1998  
Page -2-

In general, a typical accelerated bluff retreat episode is followed by a period of significantly decreased retreat rate or quiescence. During these intervals minor bluff top failures may occur, but large-scale bluff retreat does not occur.

Because of the current bluff retreat episode and its impact on the safety to residential occupants in the Big Lagoon Park subdivision, we have evaluated the risk of bluff top failure under current geologic/bluff erosion conditions, relative to the distance east of the top edge of the coastal bluff. To provide a basis for short term/emergency, avoidance of high risk areas due to bluff failure we have reviewed documentation of previous bluff retreat events, analyzed aerial photographs taken in January, 1998 prior to the current bluff erosion, and in March, 1998 after significant erosion had occurred, and conducted a surficial geologic reconnaissance of the entire length of the bluff top within the Big Lagoon Park subdivision.

Our conclusions regarding the potential for large scale bluff failure relative to the top edge of the bluff face are based on empirical data. We have observed sudden failure of blocks of bluff material along vertical tension cracks, extending eastward of the bluff edge on the order of 10 feet. During the March 23, 1998 field reconnaissance, we observed and measured open tensional cracks on the bluff top, extending up to 26 feet from the bluff edge. During the 3 day period of February 13, 1998 through February 15, 1998 up to 50 feet of bluff retreat was documented in the central coastal portion of the subdivision.

Bluff failure hazard zones defined in this report are measured from the top edge of the bluff face. The hazard zones apply to those properties that do not have a stable back beach berm at the base of the bluff face. The hazard zones designated are to be used specifically by County officials to assist their evaluation of public safety criteria under emergency conditions and only for short periods of accelerated bluff erosion. They do not apply to residential siting of new development nor do they apply to the potential for catastrophic failure due to seismic shaking. Because of the dynamic nature of bluff erosion episodes, the location of the hazard zones should be expected to change and will need to be constantly evaluated by County officials during and immediately following accelerated bluff retreat events.

A HIGH to VERY HIGH bluff failure hazard zone extends 30 feet from the top edge of the bluff. This area is considered to be subject to excessive risks to permanent structures and their occupants. Catastrophic, sudden failure of the bluff top can occur without warning.

A MODERATE to HIGH bluff failure hazard zone extends from 30 feet to 40 feet from the top edge of the bluff. This area is considered to be subject to substantial risks to permanent structures and their occupants. Any decks located in this area should be structurally disconnected from permanent structures. If bluff failure occurs within the High to Very High bluff retreat zone, this area should be evacuated immediately until re-evaluation by County officials



Mr. Kirk Girard  
April 3, 1998  
Page -3-

A **LOW** to **MODERATE** bluff failure hazard zone extends beyond 40 feet from the top edge of the bluff. This area is subject to significant risk to permanent structures and their occupants during accelerated bluff erosion episodes.

During periods of accelerated bluff retreat all residences west of Ocean View Drive and Park Drive and located 40 feet or more from the bluff edge can be at risk from bluff failure hazards. The level of risk can change on a daily basis because of ongoing bluff erosion processes. If additional bluff edge retreat is noted, the hazard zone boundary should be revised.

Our data and conclusions are based on interpretations of aerial photographs, surficial features, and natural soil exposures. Existing site conditions have evolved according to the geologic processes of the past. It is conceivable that these processes may change or accelerate in an unpredictable manner. Since the coastal area of Big Lagoon and Agate Beach is one of dynamic geologic processes, present day geologic hazards may not be accurately portrayed by existing site morphology or marine processes. Therefore, risks from geologic hazards to existing coastal bluff developments cannot be determined precisely nor avoided.

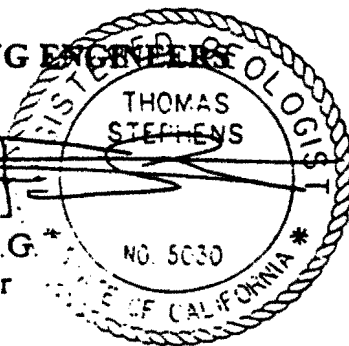
We trust that this report provides the information that you require at this time. If you have any questions, please contact me at 441-8855.

Sincerely,

SHN CONSULTING ENGINEERS  
& GEOLOGISTS

Tom A. Stephens, R.G.\*  
Geosciences Director

TAS:ls



## CALIFORNIA COASTAL COMMISSION

NORTH COAST AREA

5 FREMONT, SUITE 2000  
SAN FRANCISCO, CA 94105-2219  
(415) 904-5260

October 20, 1998

Bud Peltonen  
1957 Simmons Road  
Eureka, CA 95503

Subject: Filing Status Letter for CDP Application No. 1-98-075 (Wall)

Dear Mr. Peltonen:

The Commission staff has reviewed the above referenced CDP application that you submitted on behalf of Frank and Rosalinda Wall and have determined that it is incomplete. Certain additional information and documentation will need to be received before we can file the application as complete and schedule the item for a Commission hearing. The additional information and materials needed are as follows:

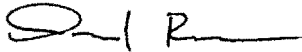
- Application Fee -- The applicable application fee for the house relocation project is five hundred dollars (\$500.00) (refer to the fee schedule under Single Family Residence, Public Hearing Calendar, 1,501 sq. ft. to 5,000 sq. ft.). Please submit a check made payable to the Coastal Commission for \$500.00 to cover the application fee.
- Please submit a revised project description that explains the proposed nature of the house relocation project. More specifically, the project description should describe the proposed limited-use-life of the subject property based on the estimated rate of bluff retreat as discussed during our telephone conversation on October 13, 1998. At that time you indicated that the Walls proposed that the estimated bluff retreat rate would allow them to maintain a residence on the subject property for a limited period of time. Please indicate what the time period is projected to be. Once the habitable life-span of the property expires, the house could then be removed from the property and placed out of harms way. The project description should specifically describe how both of the relocations will occur.
- Because the house relocation project is proposed on an unstable bluff, a current, comprehensive, site specific geology and soils report, prepared in accordance with the Coastal Commission's Interpretive Guidelines is required to file the application as complete. This report must have been prepared after the significant bluff erosion that occurred at the site during the 1997/98 storm season.

EXHIBIT NO. 6
APPLICATION NO.
1-98-075 (WALL)
10/20/98 FILING LETTER

- Section B, Appendix B, Local Agency Review, of the CDP application form must be completed by the Humboldt County Planning or Building Department as applicable, and submitted to us.
- CDP application form Section VIII, Authorization of Agent, requires that if an agent is used, written authorization must be granted by the applicant. Please have the Walls complete and sign the authorization form contained in Section VIII of the enclosed CDP application form and return the original to us.

If you have any questions regarding the content of this letter, please contact me at (415) 904-5268.

Sincerely,



Darryl Rance  
Coastal Planner

enclosure

## CALIFORNIA COASTAL COMMISSION

NORTH COAST AREA

35 FREMONT, SUITE 2000

SAN FRANCISCO, CA 94105-2219

(415) 904-5260



November 4, 1998

EXHIBIT NO. 7

APPLICATION NO.

1-98-075 (WALL)

11/4/98 FILING  
LETTER

Bud Peltonen  
1957 Simmons Road  
Eureka, CA 95503

Subject: Filing Status Letter for CDP Application No. 1-98-075 (Wall)

Dear Mr. Peltonen:

On November 2, 1998, we received supplemental information and documentation for CDP Application No. 1-98-075, including: 1) Appendix A of CDP Application Form, Declaration of Campaign Contributions; 2) Appendix B of CDP application Form, Local Agency Review Form; 3) a letter to Kirk Girard, Humboldt County Planning Director, from SHN Consulting Engineers & Geologist dated April 3, 1998; and 4) a one-page narrative intended to supplement the project description. On November 4, 1998, we received additional materials in support of the CDP application, including: 1) Section VIII of the CDP application form, Authorization of Agent, which authorizes Bud Peltonen to act as agent for all matters concerning CDP Application No. 1-98-075; and 2) Check No. 7655 in the amount of five hundred dollars (\$500.00) intended to be used as the application filing fee. Thank you for providing these materials. The information and documentation provides much of the material we requested in our letter of October 20, 1998 to complete the application. However, CDP Application No. 1-98-075 remains incomplete and cannot be filed as complete and scheduled for a Commission hearing until the following additional information and documentation has been submitted to this office:

- Application Fee -- Pursuant to our telephone conversation on November 4, 1998, in which you clarified the size of the house to be relocated as 931 square feet, the applicable application fee is **two hundred and fifty dollars (\$250.00)**. Please disregard the five hundred dollars (\$500.00) application fee referenced in our October 20, 1998, application status letter (refer to the fee schedule under Single Family Residence, Public Hearing Calendar, 1,500 sq. ft. or less). Please submit a replacement check made payable to the Coastal Commission for \$250.00 to cover the application. Enclosed in the copy of the letter being sent to the Walls, is Check No. 7655 in the amount of five hundred dollars which we are returning uncashed as the check is made out for more than we need to collect in application fees.
- As stated in our October 20, 1998, filing status letter, because the house relocation project is proposed on an unstable bluff and the application seeks authorization to place the house on a permanent foundation and use it for human habitation for an indefinite period of time, a current, comprehensive, site specific geology and soils report, prepared in accordance with


the Coastal Commission's Interpretive Guidelines is required to file the application as complete. This report must take into account the significant bluff erosion that occurred at the site during the 1997/98 storm season.

NOTE: The April 3, 1998, letter addressed to Kirk Girard, Humboldt County Planning Director, from SHN Engineering and Geologist provides helpful background information but only addresses short-term/emergency house relocation (see paragraphs 2 and 4 on page 2) and is not adequate to establish an appropriate long-term bluff setback and/or estimated future bluff retreat rate.

- As stated in our October 20, 1998 filing status letter, the application should include a project description that explains the proposed nature of the house relocation project. More specifically, the project description should describe the proposed limited-use-life of the subject property based on the estimated rate of bluff retreat as discussed during our telephone conversation on October 13, 1998. The revised project description should be based on the estimated bluff retreat rates contained in the site specific geology and soils report referenced above as a CDP application filing requirement. During our previous telephone conversations, you have indicated that the Walls proposed that the estimated bluff retreat rate would allow them to maintain a residence on the subject property for a limited period of time. Please indicate what the time period is projected to be. Once the habitable life-span of the property expires, the house could then be removed from the property and placed out of harms way. The project description should specifically describe how both of the relocations will occur.
- Appendix B, Local Agency Review Form, of the CDP application form submitted to this office on November 2, 1998, identifies a requirement for a Special Permit for Design Review from Humboldt County. Please submit evidence that a Special Permit for Design Review has been issued for the house relocation project when the Special Permit has been issued.
- The project description includes a proposal to relocate the existing septic system and leech field. Please submit evidence that the Humboldt County Health Department has approved the proposed septic system and leech field.

If you have any questions regarding the content of this letter, please contact me at (415) 904-5268.

Sincerely,



Darryl Rance  
Coastal Planner



## CALIFORNIA COASTAL COMMISSION

NORTH COAST AREA

15 FREMONT, SUITE 2000

SAN FRANCISCO, CA 94105-2219

(415) 904-5260



December 8, 1998

[sent via facsimile and U.S. Mail]

Frank and Rosalinda Wall  
17086 Avenue 416  
Orosi, CA 93647

EXHIBIT NO. 8

APPLICATION NO.

1-98-075

12/8/98 FILING  
LETTER

Subject: Filing Status Letter for Coastal Development Permit (CDP) Application  
No. 1-98-075 (Wall)

Dear Mr. And Mrs. Wall:

It was a pleasure speaking with you today regarding your proposed house relocation project in the Big Lagoon Subdivision area of Humboldt County. The purpose of this letter is to recap our telephone conversation and summarize the outstanding informational items we would like to receive before we finalize our staff recommendation for the proposed project.

Our letters of October 20, 1998 and November 6, 1998, requested that you provide certain additional information to complete your application so that we could file it and schedule it for Commission hearing. Although we have not received all the information we requested, we understand that your situation has special circumstances. In the interest of moving your application along as soon as possible, we have decided to file CDP application No. 1-98-075. Your application has been scheduled for the January 12<sup>th</sup> — 15<sup>th</sup> Commission meeting in Culver City. You will be notified of the exact meeting date once the Commission agenda has been finalized.

Although we have waived certain filing requirements to enable the application to be heard by the Commission, as soon as possible, there are three outstanding items of information that will greatly assist us in finalizing our staff recommendation and which will be important in the Commission's consideration of the application at the hearing. These items include: 1) a site specific soils and geology report; 2) a conceptual approval of septic system from Humboldt County Environmental Health; and 3) information regarding foundation options.

- 1) Soils and Geology Report. In our previous correspondence dated October 20, 1998, and November 6, 1998, staff requested a current, comprehensive, site specific geology and soils report, prepared in accordance with the Coastal Commission's Interpretive Guidelines. Because the lot is currently developed with a single family residence, we are willing to accept a more focused geotechnical evaluation than that called for in the guidelines. The report should

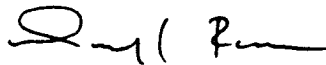
still contain site specific information and should: (A) explain the existing condition (soils and geology) of the lot; (B) provide a current estimate of future bluff retreat rate; and (C) provide an estimated use-life of the residential structure in the proposed location.

- 2) Septic System Approval. In our previous correspondence, staff requested that you submit evidence that the Humboldt County Health Department has approved the proposed septic system and leech field. We need to receive a written "conceptual" approval from the Health Department that indicates that the site can accommodate the proposed septic system; final approval is not necessary at this time.
- 3) Foundation Options. Given the potential need to relocate the house in the future, the Commission must consider foundation options that would allow for an efficient and minimally intrusive relocation effort. Pursuant to our conversation, please provide information regarding your options to construct a foundation that meets County building standards and that will provide for an efficient and minimally intrusive future relocation, if necessary.

The information we are requesting is very important and could make a considerable difference in the Commission's evaluation of the project's consistency with the Coastal Act. As we discussed, the information would be of most help to us if we were to receive it prior to the mailing of our written staff recommendation on December 17, 1998, so that we can take the information into account as we prepare the recommendation. If the information cannot be provided that soon, providing the information before the Commission hearing would at least allow the Commission itself to consider the information before acting on the application.

I will contact you when the agenda for the Commission's January meeting is finalized and inform you of the hearing date for the above referenced item. If you have any questions regarding the content of this letter or if you require further assistance, please contact me at (415) 904-5268.

Sincerely,



Darryl Rance  
Coastal Planner

cc: Bud Peltonen  
1957 Simmons Road  
Eureka, CA 95503