

CALIFORNIA COASTAL COMMISSION

NORTH COAST DISTRICT OFFICE
 710 E STREET • SUITE 200
 EUREKA, CA 95501-1865
 VOICE (707) 445-7833
 FACSIMILE (707) 445-7877

MAILING ADDRESS:
 P. O. BOX 4908
 EUREKA, CA 95502-4908

**RECORD PACKET COPY****Th14a**

Filed: July 13, 2000
 Hearing Opened: September 13, 2000
 Staff: Jim Baskin
 Staff Report: May 31, 2001
 Hearing Date: June 14, 2001
 Commission Action:

STAFF REPORT: APPEAL**DE NOVO HEARING**

APPEAL NO.: **A-1-CRC-00-033**

APPLICANT: **Del Norte Healthcare District**

AGENT: **Xiao Jin Yuan**

LOCAL GOVERNMENT: **City of Crescent City**

DECISION: **Approval with Conditions**

PROJECT LOCATION: **At the western terminus of Front Street at its intersection with "A" Street, on property known as 100 "A" Street (site of former Seaside Hospital), Crescent City, Del Norte County, APNs 118-020-28, 118-030-07, 118-040-33, & -34.**

PROJECT DESCRIPTION: **Development of a 94-room destination resort hotel and restaurant complex comprising 54,492 sq. ft. of building coverage and extending to a 35-ft.-height at full build-out, and including a parking lot, covered entry, walkway, signage, and landscaping improvements.**

APPELLANTS: **Commissioners Christina L. Desser & John Woolley**

facility. Concurrent with these efforts, the applicant has amended its project description and provided considerable additional information on the effects of the proposed project on coastal resources. The proposed project has been amended to include both the first and second construction phases of the hotel, a site plan that breaks up the structural bulk of the site improvements to better protect visual resources, dedications of additional public access facilities to the City, and onsite treatment of stormwater discharges from the site.

Detailed geo-technical analysis has been presented to clarify that no portions of the proposed resort facility would be located within geologically unstable areas with respect to coastal erosion, liquefaction, and tsunami hazards, and to assure that the project site is suitable and adequate for the proposed use. The applicant has also submitted a coastal access survey and impact analysis addressing the direct and cumulative effects of the proposed resort hotel project on coastal access and recreational facilities. In addition, the applicant now proposes to dedicate several vertical and lateral coastal access easements to offset the demand for coastal access facilities that the project would engender. Finally, under the revised project, the applicant would confine the bulk and scale of the site improvements so that visual resources would be less adversely affected.

Staff is recommending a number of special conditions that will ensure the project's consistency with all applicable policies of the City's certified LCP and the Coastal Act. Several conditions would require the applicant to prepare and submit final design and construction, and landscaping plans that would ensure that the project is built as proposed, incorporate the recommendations and design criteria identified in the applicant's geo-technical report and provide a minimum 30-foot setback between the blufftop and buildings. As conditioned, the project would be safe from bluff retreat and consistent with the provisions of Chapter 5, Policy #3 of the LUP that require that new development not contribute to geologic hazards. Other recommended conditions would require that final design and construction plans reflect that the development as approved would: (1) limit building heights to a maximum of 35 feet above natural grade; (2) configure site improvements in two building envelopes so as to break up the overall bulk of the structural improvements and provide a view corridor to protect significant views to and along the coast; and (3) limit the height of landscaping within the view corridor and vista point areas so that these views are not obstructed by vegetation. These conditions would achieve conformance with LCP visual policies by protecting views of the rocky shoreline, mitigate the loss of views that does occur, and protect visual character.

Other special conditions would require recordation of deed restrictions stating that no new shoreline protective device shall be constructed on the parcel, that the existing shoreline protection structure shall not be further repaired, maintained, reinforced, or extended, and that the applicant accepts sole responsibility for any damages or injuries resulting from waves, storm waves or bluff erosion at the site. These conditions would help ensure that no future seawalls are built at the site consistent with the requirements of LUP Chapter 5, Policy #4 that mandates that new development not necessitate the construction of future seawalls. The proposed project as revised, provides for dedications of public access easements over the upper beach area on the site, a lateral blufftop trail area on the bluff top with a viewing area, and vertical easements connecting to the lateral easements. These dedications will ensure that the project provides

III. SPECIAL CONDITIONS:

1. Beach Vertical Access Condition

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director for review and approval evidence that the applicant has executed and recorded a dedication to the City of Crescent City of an easement for public vertical access in accordance with the terms of the Project Description as proposed by the applicant and attached as Exhibit No. 4.

2. Blufftop Vertical Access Condition

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director for review and approval evidence that the applicant has executed and recorded a dedication to the City of Crescent City of an easement for public vertical access in accordance with the terms of the Project Description as proposed by the applicant and attached as Exhibit No. 4.

3. Beach Lateral Access Condition

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director for review and approval evidence that the applicant has executed and recorded a dedication to the City of Crescent City of an easement for public lateral access in accordance with the terms of the Project Description as proposed by the applicant and attached as Exhibit No. 4.

4. Blufftop Lateral Access Condition

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director for review and approval evidence that the applicant has executed and recorded a dedication to the City of Crescent City of an easement for public lateral access in accordance with the terms of the Project Description as proposed by the applicant and attached as Exhibit No. 4.

5. Revised Design and Construction Plans.

A. PRIOR TO THE ISSUANCE OF COASTAL DEVELOPMENT PERMIT NO. A-1-CRC-00-033, the applicant shall submit to the Executive Director for review and approval final design and construction plans which are consistent with the approved preliminary plans prepared by Philippe Lapotre, Architect, and attached as Exhibit No. 4, but which will include site plans, floor plans, building elevations, roofing plans, foundation plans, final material specifications, signage, drainage facilities, and lighting plans consistent with the Commission's action on Coastal Development Permit No. A-1-CRC-00-033.

assigns, any rights to construct or modify such devices that may exist under Public Resources Code Section 30235 or under City of Crescent City LUP Chapter 5 – “Diking, Dredging, Filling and Shoreline Structures” Policy #4.

- A(2) By acceptance of this permit, the applicant further agrees, on behalf of themselves and all successors and assigns, that the landowner shall remove the development authorized by this permit, including the structures, foundations, and septic system, if any government agency has ordered that the structures are not to be occupied due to any of the hazards identified above. In the event that portions of the development fall to the beach before they are removed, the landowner shall remove all recoverable debris associated with the development from the beach and ocean and lawfully dispose of the material in an approved disposal site. Such removal shall require a coastal development permit.
- A(3) In the event the edge of the bluff recedes to within ten (10) feet of any of the new buildings authorized by the permit, but no government agency has ordered that the structures not be occupied, a geo-technical investigation shall be prepared by a licensed coastal engineer and geologist retained by the applicant, that addresses whether any portions of the structures are threatened by wave, erosion, storm conditions, or other natural hazards. The report shall be submitted to the Executive Director and shall identify all those immediate or potential future measures that could stabilize the buildings without shore or bluff protection, including but not limited to removal or relocation of portions of the buildings. If the geo-technical report concludes that a building or any portion of the building is unsafe for occupancy, the permittee shall immediately obtain authorization from the Commission to remove the threatened portion of the structure.
- B. **PRIOR TO THE ISSUANCE OF COASTAL DEVELOPMENT PERMIT NO. A-1-CRC-00-033**, the applicant shall execute and record a deed restriction, in a form and content acceptable to the Executive Director, which reflects the above restrictions on development. The deed restriction shall include a legal description of the applicant’s entire parcel. The deed restriction shall run with the land binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Commission amendment to this coastal development permit.

8. **Assumption of Risk, Waiver of Liability and Indemnity Agreement.**

- A. By acceptance of this permit, the applicant, on behalf of (1) themselves; (2) their successors and assigns and (3) any other holder of the possessory interest in the development authorized by this permit, acknowledges and agrees (i) that the site may be subject to hazards from waves, storm waves, flooding and erosion; (ii) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; (iv) to indemnify and hold harmless

- Staff Training Component, detailing the instruction to be provided to all hotel and restaurant employees to assure that the Tsunami Safety Plan is effectively implemented.
- B. The permittee shall undertake development in accordance with the approved final plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

10. Implementation of CEQA Mitigation Measures.

The applicant shall implement all applicable Mitigation Measures not otherwise superseded by the conditions of this permit: specifically Mitigation Measures I-a, I-b, IV-a, IV-b, IV-c, V-a, VI-c, XI-a, XI-b, XIII-a, and XV-a. Such mitigation measures shall be implemented as specified in the adopted Mitigated Negative Declaration SCH No. 2000012065 for City of Crescent City Permit Application No. 2000-61, attached as Exhibit No. 7.

11. Erosion and Run-Off Control Plan.

- A. **PRIOR TO THE ISSUANCE OF COASTAL DEVELOPMENT PERMIT NO. A-1-CRC-00-033**, the applicant shall submit, for review and approval of the Executive Director, a plan for erosion and run-off control.

1) **EROSION CONTROL PLAN COMPONENT**

- a. The erosion control plan shall demonstrate that:

- (1) During construction, erosion on the site shall be controlled to avoid adverse impacts on adjacent properties and coastal resources;
- (2) The following temporary erosion control measures, as described in detail within in the "California Storm Water Best Management Commercial-Industrial and Construction Activity Handbooks, developed by Camp, Dresser & McKee, *et al.* for the Storm Water Quality Task Force, shall be used during construction: Structure Construction and Painting (CA3), Material Delivery and Storage (CA10), Scheduling (ESC1), Mulching (ESC11), Stabilized Construction Entrance (ESC24), Silt Fences (ESC50), Straw Bale Barriers (ESC51), and Storm Drain Inlet Protection (ESC53);
- (3) Following construction, erosion on the site shall be controlled to avoid adverse impacts on adjacent properties and coastal resources; and
- (4) The following permanent erosion control measures, as described in detail within in the "California Storm Water Best Management Construction Activity Handbook, developed by Camp, Dresser & McKee, *et al.* for the

and Equipment Fueling (CA31), and Employee/Subcontractor Training (CA40); and

- (6) The following permanent runoff control measures, as described in detail within in the "California Storm Water Best Management Commercial-Industrial and Construction Activity Handbooks, developed by Camp, Dresser & McKee, *et al.* for the Storm Water Quality Task Force, shall be installed: Non-Stormwater Discharges to Drains (SC1), Buildings and Grounds Maintenance (SC10), Employee Training (SC14), Extended Detention Basins (TC5), Media Filtration (TC6), Oil/Water Separators and Water Quality Inlets (TC7), Material Use (CA11), and Spill Prevention and Control (CA12).

b. The plan shall include, at a minimum, the following components:

- (1) A narrative report describing all temporary runoff control measures to be used during construction and all permanent runoff control measures to be installed for permanent runoff control;
- (2) A site plan showing the location of all temporary runoff control measures;
- (3) A schedule for installation and removal of the temporary runoff control measures;
- (4) A site plan showing the location of all permanent runoff control measures; and
- (5) A schedule for installation and maintenance of the Roof drainage media infiltration interceptor, oil/water separators, restaurant grease traps, and parking lot detention pond; and
- (6) A site plan showing finished grades (at 1-foot contour intervals) and drainage improvements.

B. The revised plans shall, prior to submittal to the Executive Director, be reviewed and certified by a qualified professional to ensure that they are consistent with the Commission's approval of the applicant's preliminary plans and with the drainage recommendations of the letter-report from the applicant's civil engineer (Lee Tromble Engineering), dated March 27, 2001, attached as Exhibit No. 8.

C. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

12. Construction Responsibilities and Debris Removal.

The permittee shall comply with the following construction-related requirements:

- d. Plantings placed along the bluff top western perimeter of the site shall be limited to seeded grass lawns, sodded turf, low-growing groundcovers, or shrubbery whose height at maturity will not exceed three feet (3') above finished grade; and.
 - e. All existing mature native vegetation (i.e., willows on blufftop, within shoreline revetment materials) shall be retained.
- 2. The plan shall include, at a minimum, the following components:
 - a. A map showing the type, size, and location of all plant materials that will be on the developed site, the irrigation system, topography of the developed site, and all other landscape features; and
 - b. A schedule for installation of plants.
- B. The permittee shall undertake development in accordance with the approved final plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

15. Retention of View Corridor.

The 40-ft.-wide view corridor as depicted in Exhibit No. 4, page 1 of this staff report shall be maintained open and unobstructed for the life of the project authorized by Coastal Development permit No. A-1-CRC-00-033. No structural improvements or landscaping, except as specifically provided for herein, or large materials shall be placed or stored within the view corridor or in a manner that would obstruct views through the corridor.

16. Future Development Deed Restriction.

- A. This permit is only for the development described in Coastal Development Permit No. A-1-CRC-00-033. Pursuant to Title 14 California Code of Regulations section 13253(b)(6), the exemptions otherwise provided in Public Resources Code section 30610 (b) shall not apply to the subject site. Accordingly, any future improvements to the structure authorized by this permit, including but not limited to repair and maintenance identified as requiring a permit in Public Resources section 30610(d) and Title 14 California Code of Regulations sections 13252(a)-(b), shall require an amendment to Permit No. A-1-CRC-00-033 from the Commission or shall require an additional coastal development permit from the Commission or from the applicable certified local government.
- B. **PRIOR TO ISSUANCE OF COASTAL DEVELOPMENT PERMIT NO. A-1-CRC-00-033**, the applicant shall execute and record a deed restriction in a form and content acceptable to the Executive Director, reflecting the above restrictions on development in

The project was not appealed to the City Council. On May 1, 2000, the Crescent City Council authorized the vacation of the public street right-of-way for the segment of "A" Street between Front and Second Streets abutting the proposed hotel site. The street abandonment was authorized to allow the area to be developed as part of the resort's parking lot.

Although several interim notices and unsigned resolutions were sent during the period following the Planning Commission and City Council actions, the City did not send a Notice of Final Action on the permit containing the requisite information identified in Section 13571 of the Commission's administrative regulations until June 27, 2000. The Notice of Final Action was received by Commission staff on June 28, 2000.

On July 13, 2000, within ten working days of receipt by the Commission on June 28, 2000 of the City's Notice of Final Action, the project was appealed by Commissioner's Desser and Woolley. The appeal cited numerous inconsistencies between the project as approved by the City and the policies of the City's certified LCP and the coastal access and recreational policies of the Coastal Act. On September 13, 2000, the Commission found that a Substantial Issue had been raised with regard to the consistency of the project as approved and the applicable policies of the LCP and Coastal Act.

Since the September hearing on the Substantial Issue determination, the City has adopted several amendments to its LCP to change the Land Use Plan and Zoning Map designations for the site and other provisions within its Land use Plan Implementation Program to better address the proposed use of the site as a visitor serving facility. On March 14, 2001, the Commission certified with nine suggested modifications the LCP amendments submitted by the City. The suggested modifications addressed policies for dedication of public access, protection of coastal recreation facilities, ensuring geologic stability, limiting provisions for construction of shoreline protective devices, protecting water quality, and height limits for the Commercial Waterfront zoning district. On April 12, 2001, the Commission adopted revised findings for the certification with suggested modifications. On May 11, 2001, the Commission concurred with the Executive Director's determination that Crescent City Council's adoption of relevant resolutions and ordinances on April 16, 2001 was legally adequate and conformed to the provisions of the Commission's action to certify the LCP.

Concurrent with the amendments to the City's certified LCP, the applicant has revised the original description. These changes involve not just adding Phase II of the development to the application pending before the Commission, but also making substantive changes to what the applicant had originally planned to construct at the site prior to the appeal being filed with the Commission. These changes involve reducing the overall number of hotel rooms and modifying the configuration of the hotel/restaurant complex from one structure to two, so that the overall bulk of the appearance of the development is lessened. In addition, the project description has been amended to include several coastal access easement dedications. Table One, below, summarizes the differences between the original project as approved by the City and subsequently appealed, and the revised project as currently proposed:

Along the bluff face, an approximately 5 to 12-ft-high, 4 to 20-ft.-wide vegetated revetment, composed of greenstone quarry rock, concrete demolition riprap, soil, and wrack debris separates the upper terrace portion of the property from the open beach face. This shoreline protection structure was erected at the request of the Del Norte Local Hospital District by the County Road Department in April-June, 1964, prior to passage of the Coastal Initiative, to stabilize the bluff from damage caused by the tsunami generated from the March 28, 1964 Anchorage Alaska great earthquake.

Seaward from the toe of the revetment, the beach face consists of a narrow, approximately 100-ft.-wide bermed cobble area grading into a rocky intertidal zone. The immediate offshore area is occupied by numerous partially submerged rocks and stacks. To the south of the property, the beach narrows into a steep cliff along the flanks of the Battery Point headland.

Vegetative cover across much of the site consists of upland grasses and ruderal forbs, including sweet vernal grass (*Anthoxanthum odoratum*), soft chess (*Bromus hordeaceus*), field mustard (*Brassica rapa*), curley dock (*Rumex crispus*) and beach strawberry (*Fragaria chiloensis*). The bluff revetment is vegetated with a mixture of native coastal willow (*Salix hookeriana*) and non-native shrubs and vines, including rosea iceplant (*Drosanthemum floribundum*), common iceplant (*Mesembryanthemum crystallinum*), and cow parsnip (*Heracleum lanatum*). Although the project site is located immediately landward of an open beach and rocky intertidal area containing a low diversity of sensitive marine organisms including rockweed and encrusting brown algae (*Fucus* sp.) scattered clusters of barnacles (*Balanus*, *Chthalamus*, and *Pollicipes* sp.), and limpets (*Acmea* sp.), there is no environmentally sensitive habitat on the property.

The property abuts the western end of Front Street, a sub-collector route that divides the Crescent City's central commercial district and residential areas to the north from the open space and public facility areas adjacent to the Crescent City Harbor. Development south of Front Street is sparse due to the high tsunami risk for this area. Land uses in the immediate vicinity of the property are primarily single-family residential, with a medical office located to the north of the project site along "A" Street.

Since certification of the recent LCP amendment affecting the site, those portions of the subject property within the coastal zone have a Commercial (C) land use designation. The property is zoned Coastal Zone - Commercial Waterfront (CZ-CW). Adjoining properties within the coastal zone are zoned CZ-PR and Coastal Zone - Single-Family Beach District (CZ-R1B).

The parcel is not located within a formally designated Highly Scenic Area, as the City's LCP does not make that distinction for any specific sites, but focuses instead on the "scenic highway corridor" visible from Highway 101 at the City's southern entrance. Nevertheless, views from the project site and through the project site from "A" Street are spectacular, consisting of nearby headlands to the northwest, numerous sea stacks directly offshore, and glimpses of the Battery Point Lighthouse to the southwest. However, due to the upward slope of the property from the street to the bluff edge and adjoining development, views to and along the coast from immediately in front of the project site from public streets and other vista points are somewhat

and provide for continued public use of the existing trail. No new improvements would be made in this area.

The above accessways are to be dedicated to the City of Crescent City in a manner consistent with the standards typically applied by the Commission and including the following dedication and recordation procedures:

- The provision of legal descriptions of both the entire project site and the area of dedication shall be provided at the time of recordation;
- The dedications shall be recorded free of prior liens and any other encumbrances which the Executive Director determines may affect the interest being conveyed; and
- The dedications shall require that any future development that is proposed to be located either in whole or in part within the area described in the recorded dedication shall require a Commission amendment, approved pursuant to the provisions of 14 CCR Sec 13166.
- The dedications shall be submitted for the review and approval of the Executive Director.

The project developer would also be responsible for building the specified trails. In addition, six (6) parking spaces (including 1 handicapped accessible space) located as indicated in the project site plans would be dedicated to the City for the vertical beach access.

Other proposed improvements include a covered entry, signage, exterior lighting, and paved parking areas for 136 vehicles (50 within the coastal zone, 86 outside the coastal zone).

The amended project also includes a preliminary concept plan for the treatment of stormwater runoff from the hotel site prior to its discharge into the City's stormwater sewer. Rooftop drainage would be collected and conveyed into a 30-ft x 30-ft. infiltration chamber to be located in the lawn area west of the hotel buildings. Runoff from the parking lot and other impervious surfaces would be collected and conveyed into a 45-ft. x 45-ft. infiltration chamber located at the east end of the parking lot near "B" Street.

C. Public Access.

1. Summary of Coastal Act and LCP Provisions

a. Coastal Act Access Policies

Projects located within the coastal development permit jurisdiction of a local government are subject to the coastal access policies of both the Coastal Act and the LCP. Coastal Act Sections 30210, 30211, and 30212 require the provision of maximum public access opportunities, with limited exceptions. Section 30210 states that maximum access and recreational opportunities shall be provided consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse. Section 30211 states that development shall not interfere with the public's right of access to the sea where acquired

The City shall assure that the public can easily locate existing access points... The present access points are identified in the General Conditions section of this element and are again identified as: Preston Island, Sixth Street, Third Street, Fifth Street, Battery Point, Howe Drive, and Sunset Circle. [emphasis added]

In its application of these policies, 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.

2. Discussion

The LUP identifies eight coastal access points within the bounds of Crescent City. Table 2, below, summarizes the location and features of these beach access points:

Table 2: Inventory of Crescent City Coastal Access Points

Facility Name	Location	Distance from Project Site	Features
Preston Island	Northwest Oceanfront	1¼ mi. to northwest	Paved vertical accessway leading to ½-¾ mi. of lateral access along Pebble Beach, developed with numerous off-street parking spaces, picnic tables, and litter receptacles
Sixth Street	Western Street End	±¾ mi. to northwest	Improved footpath providing access to beach below Halls Bluff with limited on-street parking (4 spaces)
Fifth Street	Western Street End	±¼ mi. to northwest	Unimproved footpath entry to ¾-1 mi. lateral access to beach areas between Halls Bluff and Battery Point with very limited on-street parking (1-2 spaces)
Fourth Street	Western Street End	±¼ mi. to northwest	Unimproved footpath entry to ¾-1 mi. lateral access to beach areas between Halls Bluff and Battery Point with very limited on-street parking (1-2 spaces)
Third Street	Western Street End	±500 ft. to northwest	Unimproved footpath entry to ¾-1 mi. lateral access to beach areas between Halls Bluff and Battery Point with very limited on-street parking (1-2 spaces)
Battery Point	Southwest	±¼ mi. to	Paved accessway to Battery Point

- (3) Vertical Beach Access – a 6' wide public trail access easement from "A" St to the lateral beach access in (1) above, along the north property line at the south side of the Healthcare Clinic parking lot, to be dedicated to the City. The proposal includes constructing a 5' sidewalk from "A" St to the lateral bluff top trail in (2) above. No other improvements would be made west of the lateral bluff top trail.
- (4) Vertical Beach Access – a 20'-wide public trail access easement from the west side of the existing clinic parking lot to the lateral beach access in (1) above, to be dedicated by the Del Norte Healthcare District to the City to encompass the existing foot trail to the beach and provide for continued public use of the existing trail. No new improvements would be made in this area.

The above accessways are proposed to be dedicated to the City of Crescent City in a manner consistent with the standards to typically applied by the Commission and including the following dedication and recordation procedures:

- The provision of legal descriptions of both the entire project site and the area of dedication shall be provided at the time of recordation;
- The dedications shall be recorded free of prior liens and any other encumbrances which the Executive Director determines may affect the interest being conveyed;
- The dedications shall require that any future development that is proposed to be located either in whole or in part within the area described in the recorded dedication shall require a Commission amendment, approved pursuant to the provisions of 14 CCR Sec 13166; and
- The dedications shall be submitted for the review and approval of the Executive Director.

The project developer would also be responsible for building the specified trails. In addition, six (6) parking spaces (including 1 handicapped accessible space) located as indicated in the project site plans would be dedicated to the City for the vertical beach access.

These access facilities have been proposed by the applicant in the interest of complying with the above-cited LUP Chapter 1 Policy #2. The policy requires that for approval of any new recreational or visitor serving commercial development at the project site, the development shall require an offer of dedication be made for public access to an appropriate grantee if the proposed development would create significant adverse individual or cumulative impacts on the public's demand for and use of public access facilities, and the offer of dedication would alleviate the impacts and be reasonably related to the impacts in nature and extent. LUP Chapter 2 Policy #2 further set minimum criteria for the location and design of any access facilities that may be required of new development at the project site as follows: (1) any lateral accessways along the beach must be located at the westerly portion of the property extending to the mean high tide line; (2) any blufftop lateral accessways must allow for a trail to be constructed and maintained for public access and located far enough inland from the top of the bluff such that the construction of landform altering shoreline protective devices would not be required; and (3) any

Conclusion

Therefore, the Commission finds that the project as proposed is consistent with the certified City of Crescent City LCP and the public access and recreation policies of the Coastal Act, because all public access and recreation impacts of the project would be mitigated through the dedication of public access easements included within the project's design.

D. Relocation of Harbor-City Bicycle Path.

1. Summary of LCP Provisions

The City Recreational Areas inventory within LUP Chapter 2 – “Recreation and Visitor Serving Facilities” describes the Harbor-City Bicycle Path as follows:

5. *HARBOR-CITY BICYCLE PATH*

The Bicycle Path starts at Pebble Beach Drive in the City and follows Pebble Beach Drive and Taylor Street before merging onto Fifth Street. The pathway continues down Fifth Street then turns onto A Street. The bicycle path continues along A Street to Battery Drive. At Battery Drive the Bike Path enters Beachfront Park, following Howe Drive east to Highway 101. The Bike Path then follows Highway 101 South to Sunset Circle, to the southerly City Limits. The Bike Path continues through the Harbor area to South Beach. The Path has ocean views at the coastal access points and provides access to recreational opportunities along the route. Relocation of the route of the Harbor-City Bicycle Path may only be allowed in conjunction with new development if relocation would be consistent with all relevant LCP policies, including but not limited to Recreation and Visitor Serving Facilities Policy No. 5. [emphasis added]

LUP Chapter 2 – “Recreation and Visitor Serving Facilities” Policy #5 reads as follows:

No development at the former Seaside Hospital site (APN 118-020-28), including any recreational or visitor-serving commercial development, shall obstruct the routing of the Harbor-City Bicycle Path to cross over Fifth Street to A Street and continue on A Street to Battery Drive. New development may result in a detour of the route of the Harbor-City Bicycle Path from A Street between Second and Front Streets only if the City, or the Commission on appeal, finds that it is infeasible to route the bicycle path through the proposed development, consistent with all LCP standards and policies. [emphasis added]

2. Discussion

With the exception of the Pacific Coast Bike Route running along Highway 101, the Harbor-City Bicycle Path is the only designated bike route through the City of Crescent City. The route currently follows all of the shoreline streets along the City's oceanfront and harbor areas. The

- No significant demand for a Class 1 bikeway to either offset the adverse impacts of the project or satisfy an unmet regional transportation need has been demonstrated for which the facility might be required as a condition of project approval, consistent with LUP Chapter 1, Policy #1.
- No prescriptive bicycle access rights from offsite through the subject property that would need to be protected or preserved in similar time, place, or manner have been demonstrated, as would be required under Coastal Act Section 30211 (incorporated by reference into the LCP as "Relevant Data").
- Based upon the findings of Coastal Access Survey – Peak Visitations study previously prepared for the project (see Exhibit No. 10), the proposed relocated bike path more closely follows the preferred route used by the majority of cyclists, consistent with LUP Chapter 1, Policy #3.
- The proposed route delivers riders to key attractions along the route (i.e., Battery Point Lighthouse, "B" Street Pier, Pebble Beach) with no appreciable increase in travel distance being required, consistent with LUP Chapter 1, Policy #3.
- No corresponding improvement to the views to and along the coast would result from that which would be available from the proposed "B" Street re-routing (see LUP Chapter 3 – "Coastal Visual Resources and Special Communities" Policy #4, below).
- The development of a Class 1 bikeway through the project site, especially through the proposed parking lot, would create potentially significant public safety risks, interfere with the safe movement of vehicles on public streets, and adversely affect the functionality of numerous off-street parking spaces, inconsistent with Sections 17.76.010, 17.76.080, and 17.76.120E of the Coastal Zone Zoning Regulations.

To authorize the re-location of the Harbor-City Bicycle Path as proposed, the Commission must find that it is not feasible to incorporate the path's existing route into the design of the new development and that any relocation is consistent with the policies of the certified LCP and the access policies of the Coastal Act. With respect to the infeasibility of incorporating the existing route within the design of the new development, the Commission concludes that, given the potential conflicts between cyclists, pedestrians, and vehicles, and the limited amount of area to construct separate bicycle lane facilities, the incorporation of the Harbor-City Bicycle Path into the site plan would not be feasible. In addition, with regard to the revised route, the Commission concludes that the proposed relocated route would be consistent with the policies of the LCP as the new route continues to deliver riders to coastal recreational destinations along the route, including key beach access points, with a minimum of increased distance added to the overall route.

Conclusion

Therefore, the Commission finds that the proposed relocation of the Harbor-City is consistent with the certified City of Crescent City LCP and the public access and recreation policies of the Coastal Act, as incorporation of the existing bike path route in the design of the new development would not be feasible and the proposed route realignment would be consistent with

earthquake. As discussed further below, available evidence demonstrates that the stretch of coastal bluff that includes the subject property has experienced very low rates of bluff retreat at least during the last forty years. Nevertheless, due to its oceanfront location and the composition of underlying materials, the project site is subject to exposure to three principal types of geologic hazards: (1) coastal bluff erosion from direct wave and wind attack; (2) liquefaction associated seismic shaking of soils with low shear strength; and (3) potential tsunami inundation from both distant and nearby seismic events.

Coastal Bluff Erosion

The coastal bluffs adjacent to the Pacific Ocean in this area are subject to erosion from dynamic and changing conditions. The rate of erosion over any given span is dependent upon a number of complex variables, including the composition of the beachfront materials, the degree of their exposure to erosional forces, the height of tides, the severity of storms and storm surges, and the seasonal variation in the amount of material on the beach. The potential exposure of persons and property to significant geologic hazards during the economic life of the project, and the potential for future construction shoreline protective devices to protect the development were among the substantial issues of the appeal filed on the City's approval of the project. To further address these issues, the applicant hired a consultant to prepare a detailed geo-technical analysis (see Exhibit No. 5).

A literature review conducted by the applicant's geologist, Bob Busch, CEG, found that there is contradictory information as to the rate and severity of coastal erosion of the shoreline in the vicinity of the project site. Although some documents identified this portion of the oceanfront to be undergoing coastal erosion which "has been progressive, (and) is now critical along several areas of the beach" (U.S. Army Corps of Engineers), other studies concluded extremely low rates of bluff retreat, or concluded that "in some areas the shoreline has actually seemed to 'grow' outward" (Richard B. Davis Company).

An examination of aerial photography and beach cross-sectional logs indicates that, with the exception of minor changes possibly related to the clean-up of debris along the beachfront following the 1964 tsunami, the position of the project site bluff top has remained constant. This observation would indicate an effective bluff retreat rate of 0 feet per year, at least over the past 38 years. The negligible observed rate of retreat is due in part from the presence of the apparently unengineered revetment materials placed in 1964. With respect to the estimated rate of bluff retreat, Dr Busch concluded:

Similarly, we conclude that, within the limits of our mapping accuracy (estimated at ~5 ft), the position of the top-of-bluff remained constant on the site between 1963 and 2000...

In conclusion, if the riprap were not present it would be reasonable to assign an average erosion rate of 0"/yr for the base of the bluff at the site. This estimate

coast. Nevertheless, unambiguous site-specific data do not contradict this low rate... Accordingly, in the absence of more compelling data, the value of 3 inches/year proposed in the Busch report is acceptable. Assuming a 75-year design life for the structure, this translates to a 19 foot structural setback. To this should be added a buffer to offer an increased factor of safety to protect foundation elements at the end of the 75 year design life. Although this buffer may be determined by the project engineer, a default value of 5 feet, given the low height of the coastal bluff, is recommended. Thus, I recommend a minimum of 24 feet for a structural setback for the development.* Given the inherent uncertainty in predicting geologic processes into the future, the Commission rarely has approved less than a 25 foot setback. Accordingly, a 25 foot setback is probably appropriate, and a 30-foot setback would provide a small [FS = 1.2] additional margin of safety.

As the development: (1) provides for a greater setback from the bluff edge than that recommended by both the applicant's geologist and the Commission's Staff Geologist; and (2) does not allow for the construction of shoreline protective devices except those which would protect principal structures that existed on March 14, 2001, the proposed hotel structure will be designed and located so as to minimize risks to life and property from bluff retreat consistent with LUP Chapter 5, Policy #3.

To assure that the proposed new development minimize risks to life and property in areas of high geologic hazard, 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, the Commission attaches Special Condition Nos. 5 and 6. Special Condition Nos. 5 and 6 requires that the final design and construction plans, including foundations, grading and drainage plans, be consistent with all recommendations of the geotechnical report. In addition, prior to the issuance of the permit, the permittee must submit for the review and approval of the Executive Director evidence that an appropriate licensed professional has reviewed and approved all final design and construction plans and certified that each of those final plans is consistent with all of the recommendations specified in the approved geologic evaluation.

The applicant is proposing to construct a commercial visitor-serving facility that would be located adjacent to a low bluff top that is gradually eroding. Thus, the development would be located in an area of high geologic hazard. The new development can only be found consistent with the above-referenced provisions if the risks to life and property from the geologic hazards are minimized and if a protective device would not be needed in the future. The applicant has submitted information from a geologist which states that if the new development is set back 19

* The recommended setback applies only to fixed structures. Ambulatory improvements, such as the lateral blufftop trail, have been designed to be relocated as the bluff retreats to ensure that public access continues to exist for the life of the project.

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

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

In this case, the uncertainty of the conclusions of the geotechnical analysis is heightened because the geotechnical reports that have been prepared have been based upon site-specific data derived over a relatively short period of time or interpolated from other studies performed in the general region. The geotechnical report prepared by BGC, indicates that the estimated 0-inch per year erosion rate was based on the review of aerial photographs taken over a 37-year period between 1963 and 2000 and on a comparison of file reports, photographs and current site conditions. However, the bluff retreat rates in the cited geotechnical reports range from 0 to 6 inches-per-year. Furthermore, while the BGC geotechnical report states that their geological and engineering services and review of the proposed development was performed in accordance with the usual and current standards of the profession, as they relate to this and similar localities, the report conclusions were stated with several caveats.

With regard to the amount of discussion in the literature review:

We are providing this lengthy discussion because of the discrepancies in the reports about the Crescent City shoreline between Battery Point and Point St. George.

As regards the methodology used in a particular cited study:

...(A)lthough Anderson presents a thoughtful discussion and (*sic*) his own erosion-rate estimate, his use of an oblique photograph (in which the scale changes

that were not anticipated, and because new development shall not engender the need for shoreline protective devices, it is necessary to attach Special Conditions No. 7 requiring a deed restriction prohibiting the construction and repair of seawalls and Special Condition No. 8 requiring a deed restriction waiving liability.

These requirements are consistent with LUP Policy 3 of Chapter 5, which states that new development shall minimize risk to life and property in areas of high geologic, flood, and fire hazard, assure structural integrity and stability, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding areas, nor in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs. The Commission finds that the proposed development could not be approved as being consistent with LUP Policy #3 of Chapter 5 if projected bluff retreat would affect the proposed development and necessitate construction of a seawall to protect it.

In addition, LUP Policies #5 and #7 of Chapter 5 allow the construction of shoreline protective devices only for the protection of existing development. The site is currently vacant. The construction of a new shoreline protective device or the repair of the existing shoreline protective device to protect new development is not permitted by the LCP. In addition, as discussed further below, the construction of a protective device to protect new residential development would also conflict with the visual policies of the certified LCP.

As noted above, some risks of an unforeseen natural disaster, such as an unexpected landslide, massive slope failure, erosion, etc. could result in destruction or partial destruction of the house or other development approved by the Commission. In addition, the development itself and its maintenance may cause future problems that were not anticipated. When such an event takes place, public funds are often sought for the clean up of structural debris that winds up on the beach or on an adjacent property. As a precaution, in case such an unexpected event occurs on the subject property, the Commission attaches Special Condition No.7, which requires the landowner to accept sole responsibility for the removal of any structural debris resulting from landslides, slope failures, or erosion on the site, and agree to remove the structures should the bluff retreat reach the point where a government agency has ordered that the structure not be occupied.

The Commission finds that Special Condition No. 7 is required to ensure that the proposed development is consistent with the LCP and that recordation of the deed restriction will provide notice of potential hazards of the property and help eliminate false expectations on the part of potential buyers of the property, lending institutions, and insurance agencies that the property is safe for an indefinite period of time and for further development indefinitely into the future, or that a seawall could be constructed to protect the development.

Additionally, the Commission attaches Special Condition No. 8, which requires the landowner to assume the risks of extraordinary erosion and geologic hazards of the property and waive any claim of liability on the part of the Commission. Given that the applicants have chosen to implement the project despite these risks, the applicant must assume the risks. In this way, the

development will not be located where it might result in the creation of a geologic hazard. Only as conditioned is the proposed development consistent with the LCP policies on geologic hazards.

Liquefaction Hazard

The second form of geologic hazard affecting the project site is building damage caused by the liquefaction of underlying soils. Liquefaction is a process by which sediments below the water table temporarily lose strength and behave as a viscous liquid rather than a solid reducing the bearing strength of the soil;. When liquefaction is accompanied by some form of ground displacement or ground failure it can be destructive to the built environment. Adverse effects of liquefaction to structures can take many forms, including lateral spreading of foundations, uneven building settlement, and increased lateral pressure on retaining walls. Buildings subjected to liquefaction-related damages can shift, tilt, or be displaced off of their foundations, resulting in partial or full structural collapse, and the overturning of heavy furniture and major appliances that can be injurious or fatal to occupants.

With respect to liquefaction hazards, the geo-technical investigation conducted by the applicant's geologist found no records of liquefaction having occurred at the site. Neither was any liquefaction risk assigned for the site in the "Planning Scenario in Humboldt and Del Norte Counties, California for a Great Earthquake on the Cascadia Subduction Zone," prepared by the California Department of Conservation, Division of Mines and Geology in 1995. Furthermore, an assessment of the materials overlying the site and the depth to groundwater did not reveal conditions where soil liquefaction typically would occur. Dr. Busch concluded:

Using a decision tree that considers the age of the deposit and the depth to groundwater (e.g., Youd and Perkins, 1978; Hitchcock et al., 1999), the liquefaction potential of the site sediments is LOW. In our opinion, because there is no confining layer (due to widespread ground disturbance the stripping of potential confining layers, and the nearby free face), the liquefaction potential of the site is VERY LOW...

In conclusion, our quantitative evaluation is that the liquefaction-induced ground failure potential of the site is NEGLIGIBLE in the southern part of the site and no higher than LOW in the northern part of the site.

Although the Commission's geologist has previously noted to the applicants that the combination of shallow groundwater, potential perching of groundwater at the bedrock/terrace contact, and the presence of loose, sandy soils made liquefaction during a strong earthquake a concern warranting detailed investigation, no such investigation was performed. Dr. Johnson states:

Without specific tests, I cannot concur with the report's conclusion that liquefaction potential varies across the site from 'negligible' to 'low.' In consultation with me, Dr. Busch chose to excavate several trenches at the site, at least two of which penetrated to weathered Franciscan bedrock. These trenches

it against electrical wires. The fire spread quickly to the nearby fuel tank farm, which burned for three days. Overall damage was estimated at between \$7.5 - 16 million (1964 dollars).

Because of the ongoing risk of future tsunami events, much of the City's harbor waterfront remains vacant or has been reserved for open space, parks, and other low-occupancy public facilities uses. Despite its location on the open ocean and the previously noted damage along the beachfront, the project site was subject to little inundation from the 1964 event. Tsunami inundation did not overtop the bluff in this location, although tsunami inundation reached the northeast corner of the property (on its inland side) from other parts of the harbor. The Flood Insurance Rate Map prepared in 1986 for Crescent City by the Federal Emergency Management Agency (FEMA) indicates the tsunami run-up was confined to the 100- and 500-year flood boundaries, representing elevations of +13.1 ft. msl and +16.4 ft. msl, respectively.

With respect to the risk of exposure of persons and property to tsunami inundation associated with distant seismic events, the applicant's geologist states:

(A)lthough the risk is HIGH that Crescent City will be struck by one or more distant-source tsunamis during the design project lifespan (75 years), the risk that the Yuan project site will be inundated by one of these distant-source tsunamis is NEGLIGIBLE because the site elevation exceeds the predicted maximum run-up height of a distant-source tsunami (the 1964 run-up height). The risk of damage to the proposed structure also is NEGLIGIBLE because the design elevation (first floor, 17 ft MSL) exceeds this predicted maximum run-up height. No additional mitigation is needed to protect the proposed development from damage by a distant-source tsunami: the development plan is in conformance with current Crescent City regulations relating to tsunami inundation...

As regards the risk of exposure of persons and property to tsunami inundation associated with nearby seismic events, the applicant's geologist further concludes:

(T)he risk of inundation of the project site by a near-source tsunami is LOW within the next 75 years (it is 1 to 2 chances in 10 within the next 50 years). Although the risk of damage to the proposed structure is the same (LOW) over this period of time, if a ... near-source tsunami were to arrive, damage is certain at the site. Because the entire down-town area of Crescent City is exposed to the same level of risk from a near-source tsunami, yet development is being allowed to proceed by local and state regulators, it is grossly inappropriate to expect the project proponents to be subject to development criteria that is not being applied elsewhere in at-risk areas of the city. In short, no additional mitigation is available to reduce the risk of damage by a near-source tsunami. However, it might be possible to reduce the loss of life due to the arrival of the tsunami by posting conspicuous warning notices in the motel instructing occupants to immediately move to higher ground in the event of a very strong earthquake.

potential damages and injurious associated with the potential soil liquefaction during strong seismic events.

Finally, as regards potential tsunami inundation, the project has been proposed or conditioned to comply with all current building design criteria relating to this type of geologic hazard, including the minimum occupied floor elevation. In addition, to minimize the exposure of persons to avoidable tsunami hazards, the applicant is required to develop a tsunami safety plan to provide information to hotel and restaurant guests and evacuation response assistance in the event of a tsunami threat to the area.

Therefore, the Commission finds that the project as proposed and conditioned is consistent with the geologic hazards policies of the certified City of Crescent City LCP because exposure to all significant risks to life and property from geologic hazards have been minimized consistent with Policy #3 of LUP Chapter 5, project improvements have been designed and sited so as not to require future construction of shoreline protective devices consistent with Policy #4 of LUP Chapter 5, and deed restrictions prohibiting the construction of future shoreline protective devices have been made a condition of permit approval consistent with Policy #7 of LUP Chapter 5.

F. Visual Resources

1. Summary of LCP Provisions

Policy #4 of LUP Chapter 3 – “Coastal Visual Resources and Special Communities” 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 designated highly scenic areas shall be subordinate to the character of its setting. Any future development at the former Seaside Hospital site (APN 118-020-28), including any recreational or visitor-serving commercial development, shall provide for a substantial view corridor oriented from the vantage point of the vicinity of the intersection of Front and A Streets and directed toward the offshore rocky areas northwest of the site.

2. Discussion.

Although the parcel is not located within a formally designated Highly Scenic Area (the City’s LCP does not make that distinction for any specific sites, but focuses instead on protecting views within the “scenic highway corridor” visible from Highway 101 at the City’s southern entrance), the oceanfront site for the proposed commercial visitor-serving facility area is an area of notable

currently available along the site's entire "A" Street frontage from Second Street south past Front Street, the viewing area along "A" Street would be reduced to an area starting at the north side of the Front Street intersection to a point approximately 100 feet south of the intersection. The project site's coastal viewshed, as seen from the southern end of this area and oriented to the northwest consists of an approximately 30° arc taking in some of the sea stacks offshore and ocean waters in the Halls Bluff area to the tops of the offshore at the northern end of the project site. With the hotel buildings in place, views of the Halls Bluff headlands, the partially submerged rocks directly offshore of the site, and views southwest toward Battery Point would no longer be visible.

Furthermore, at over 54,000 square feet and extending in height to just under 35 feet, the hotel/restaurant improvements complex would constitute the largest structural development in this portion of Crescent City. Most of the western oceanfront of the City along "A" Street and in the surrounding to the north along Pebble Beach Drive is developed with one to two-story single family residences ranging from 1,500 to 2,500 sq. ft. in size. Much of the immediate area to the east and south of the project site within the adjoining Commercial Waterfront, General Commercial, and Open Space zoning districts is vacant. Notable exceptions include the cluster of five, approximately 28-ft.-height storage tanks at the commercial fuel depot on "B" Street between Front and Battery Streets, and the City's Wastewater Treatment Plant comprising a one-story complex covering roughly 1½-acres on the east side of "B" Street south of Battery Street. The closest structure having approximately the same bulk and scale as that of the proposed hotel complex is the Surf Apartments building. This four-story, approximately 30,000-sq.ft. multi-family residential structure is located seven blocks east of the project site at the corner of Front and "H" Streets within the City's commercial core area.

c. Conformance with LUP Coastal Visual Resources and Special Communities Policy #4

Although any above-ground development of the site would inevitably result in a loss of some coastal views, in order for the proposed project to be approved, the Commission must find that the development is consistent with the applicable visual resources policies and standards of the City's certified LCP. LUP Chapter 3 Policy #4 requires that "*the scenic and visual qualities of the coastal areas*" be considered and protected by siting and designing permitted development to:

- protect views to and along the ocean, and provide a substantial view corridor oriented from the vantage point of the vicinity of the intersection of Front and "A" Streets toward the offshore rocky areas northwest of the site;
- minimize natural landform alteration;
- restore and enhance the quality of visually degraded areas where feasible;
- be visually compatible with the character of surrounding areas; and

persons traveling down Front Street toward the site. Moreover, by locating the proposed lateral blufftop trail entry point at this location, coastal visitors would be readily afforded a coastal accessway leading to a vista point that would provide the full panorama of views to and along the coast. This improvement would further offset the loss of views from along the project's street frontage.

In accordance with the provisions of Section 13253(b)(6) of Title 14 of the California Code of regulations, the Commission also attaches Special Condition No. 16, which requires recordation of a deed restriction stating that all future development on the subject parcel that might otherwise be exempt from coastal permit requirements requires an amendment or coastal development permit. This condition will allow future development to be reviewed to ensure that the project will not be sited where it might have significant adverse impacts on visual and scenic resources.

Finally, the Commission attaches Special Condition No. 7, which requires recordation of a deed restriction stating that the landowner shall not construct any bluff or shoreline protective devices to protect the residence, garage, septic system, or other improvements in the event that these structures are subject to damage, or other natural hazards in the future. This condition will ensure that in the future, no seawall will be constructed that would have significant adverse impacts on visual resources.

Accordingly, the Commission concludes that the proposed new development as conditioned has been sited and designed to protect views to and along the coast. Furthermore, the Commission concludes that, as conditioned by Special Conditions Nos. 14, 15, and 16 to: (1) ensure that landscaping is not placed or allowed to grow to such size as to obstruct coastal views through the corridor; (2) retain the opening between the buildings providing scenic views of the offshore rocks, ocean, and wildlife; and (3) allow future development to be reviewed to ensure it will not be sited where it will have significant adverse effects on visual resources. The proposed project provides a substantial view corridor oriented from the vantage point of the vicinity of the intersection of Front and A Streets and directed toward the offshore rocky areas northwest of the site as required by Visual Resources and Special Communities Policy #4.

Minimizing Landform Alteration / Restoring and Enhancing Visually Degraded Areas

Some minor alterations of natural landforms would likely result from development of the resort. Establishing building sites, accessways, parking facilities and utility placement would require the clearing of grasses and shrubs, and grading that would result in observable modifications to the current terrain at the site. However, as described in Project Setting Finding IV. A. 2, the site is generally featureless, with only minor sloped relief and no remarkable landform present. Furthermore, given the subject property's current appearance being that of a cleared demolition and hazardous materials remediation site, containing several remnant small debris piles and partially back-filled excavations, the grading performed in the construction of site improvements would result in the site more closely matching the generally flat terrain of surrounding parcels. Therefore, the Commission concludes that construction of the project as proposed would both minimize landform alteration, and restore and enhance the visually degraded site.

G. Protection of Environmentally Sensitive Habitat Areas and Water Quality From Storm Water and Polluted Runoff Impacts

1. Summary of LCP Provisions

Policy #2 of LUP Chapter 4 “Environmentally Sensitive Habitat Areas / Water and Marine Resources” states, in applicable part:

The City shall protect those areas that are designated as environmentally sensitive so that these habitats and their resources are maintained and development shall be consistent with adjacent areas and with Section 30240 et seq. of the California Coastal Act...

Referenced Coastal Act Section 30240 reads as follows:

(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.

(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

LUP Chapter 4 – “Environmentally Sensitive Habitat Areas / Water and Marine Resources,” includes within its list of environmental sensitive habitats, “Inter-tidal areas (Preston Island to North Breakwater).”

Policy #2 of LUP Chapter 7 – “Public Works” reads as follows:

The City shall require that best management practices (BMPs) for controlling stormwater runoff and maintaining water quality be incorporated into development design and operation. All post-construction structural BMPs (or suites of BMPs) for new development, including but not limited to, recreational or visitor-serving commercial development within Coastal Zone - Commercial Waterfront zoning districts, shall be designed to treat, infiltrate or filter stormwater runoff from each storm event, up to and including the 85th percentile, 24-hour storm event for volume-based BMPs, and/or the 85th percentile, 1-hour storm event, with an appropriate safety factor, for flow-based BMPs.

2. Discussion

The project site is located adjacent to the inter-tidal areas between Preston Island and the North Breakwater of the Crescent City Harbor. This nearshore area is listed as an environmentally

will avoid significant adverse impacts to the environmentally sensitive habitat area found adjacent to the site.

In addition to physical intrusion by humans in or near biologically sensitive areas, the introduction of non-point source pollution in the form of stormwater runoff, siltation from ground disturbing construction activities, and potential accidental releases of hazardous materials are other ways in which environmentally sensitive habitat and water quality may be adversely impacted by the project.

Drainage at the project site currently flows toward the northwest corner of the property where it sheet flows into a small draw before discharging onto the adjoining beachfront. Once developed, drainage from the site, especially that from impervious surfaces such as rooftops, sidewalks, and parking lots, will be collected into gutters and drop-inlets and discharged into the City's stormwater sewer. The closest storm drain to the subject property is located within Second Street to the north of the site. This 30-inch-diameter line passes under the parking lot of the adjoining medical clinic and discharges into sub-tidal waters to the northwest of the project site approximately 200 meters offshore.

Pollutants within stormwater runoff from commercial visitor-serving facility uses have the potential to degrade water quality of the nearshore environment. Parking lots contain pollutants such as heavy metals, oil and grease, and polycyclic aromatic hydrocarbons that deposit on these surfaces from motor vehicle traffic. In addition, outdoor maintenance equipment, routine washing and steam-cleaning have the potential to contribute metals, oil and grease, solvents, phosphates, and suspended solids to the stormwater conveyance system.

The proposed project includes measures to mitigate some stormwater runoff impacts, namely from impervious surfaces, through installation of infiltration interceptor vaults. All roof drainage would be collected and conveyed into a 30' x 30' system, with runoff from the parking lot and other paved areas treated by a 45' x 45' system. These treatment works are designed to accommodate the volume of runoff generated from up to the 85th percentile storm for Crescent City area (see Exhibit No. 10). For the Crescent City area, this rainfall amount is approximately one inch per hour, based upon long-term precipitation rates recorded at the City's wastewater treatment plant, two blocks southeast from the project site. With the mitigation measures proposed by the applicant and sized to accommodate the 85th percentile of the volume of flows from a 24-hour storm that would be generated from these impervious surfaces (see Exhibit No. 10), the project would mitigate the potential impacts of storm water runoff on coastal waters as required by Policy #2 of LUP Chapter 7.

To ensure that these mitigation measures will be implemented as proposed, the Commission includes within the scope of attached Special Condition No. 5 a requirement that final revised development drainage plans include construction engineering details for the installation of the two infiltration interceptors. In addition, to further ensure that water quality is protected from numerous other potential pollutants during construction of the project and its on-going operations, the Commission attaches Special Condition No. 11. Special Condition No. 11

No. 10 requires the permittee to implement all relevant mitigation measures adopted by the City, including the placement of informational signage instructing beach visitors to stay on established public access trails and not approach any marine mammals found on the beach. Special Condition No. 11 requires that the permittee prepare and implement an erosion and runoff control plan for the project. In addition, Special Condition No. 12 sets numerous construction activity and debris disposal requirements to further protect water quality. None of these measures conflict with any determination or action taken by the State Water Resources Control Board or the Regional Board in matters relating to water quality. Moreover, as the Regional Board-ordered site investigation and remedial work has been completed, including the removal of the groundwater monitoring wells, the special conditions and/or best management practices (BMPs) required by the Commission to mitigate adverse storm water runoff impacts to water quality from the proposed development would not conflict with any actions of the Regional Board consistent with the requirements of Coastal Act Section 30412.

H. California Environmental Quality Act (CEQA).

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

The Commission incorporates its findings on conformity with LCP policies at this point as if set forth in full. These findings address and respond to all public comments regarding potential significant adverse environmental effects of the project which have been received as of the writing of this staff report. As discussed herein, in the findings addressing the consistency of the proposed project with the certified LCP, the proposed project has been conditioned to be found consistent with the City of Crescent City LCP and the access and recreation policies of the Coastal Act. Mitigation measures which will minimize all adverse environmental impacts have been made requirements of project approval. As conditioned, there are no feasible alternatives or feasible mitigation measures available, beyond those required, which would substantially lessen any significant adverse impact that the activity may have on the environment. Therefore, the Commission finds that the proposed project can be found to be consistent with the requirements of the Coastal Act to conform to CEQA.

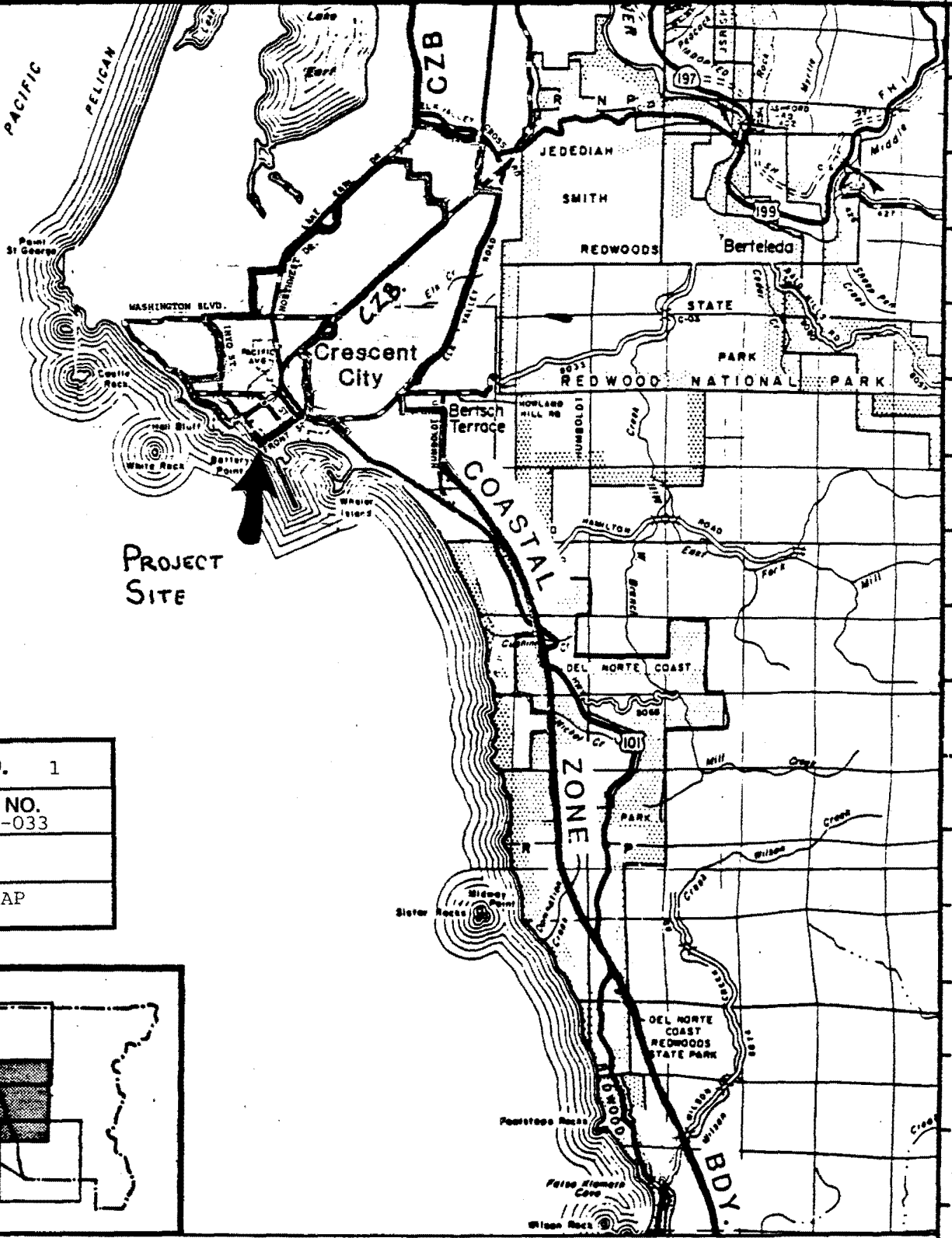
ATTACHMENT A:

STANDARD CONDITIONS

1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. Expiration. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
3. Interpretation. Any questions of intent or interpretation of any condition will be resolved by the Executive Director of the Commission.
4. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
5. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

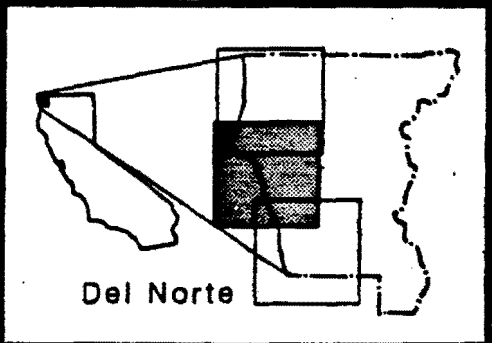
A B C D E F G H I J K L M N O

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18



PROJECT SITE

EXHIBIT NO.	1
APPLICATION NO.	A-1-CRC-00-033
LOCATION MAP	



LOCATION MAP



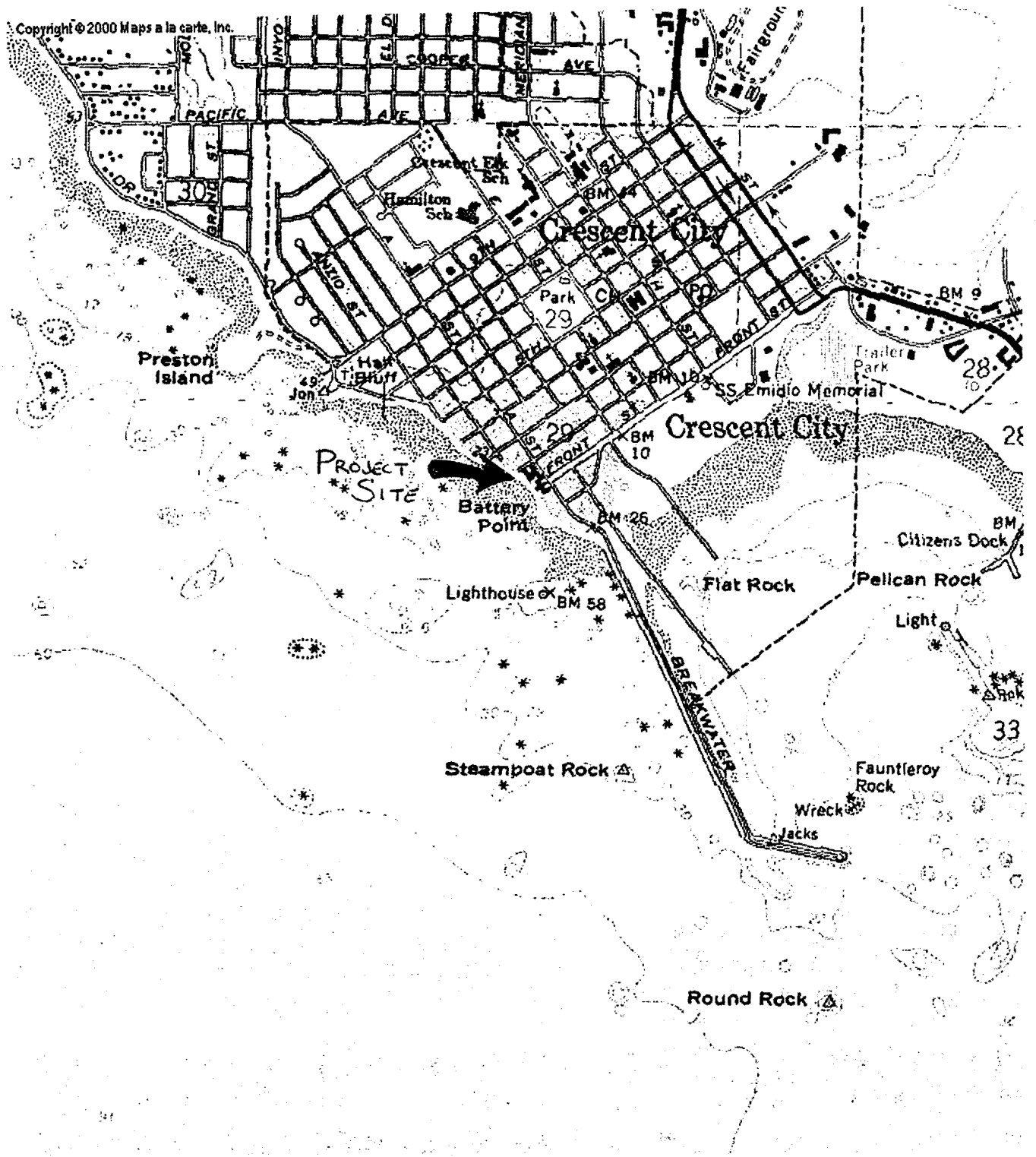
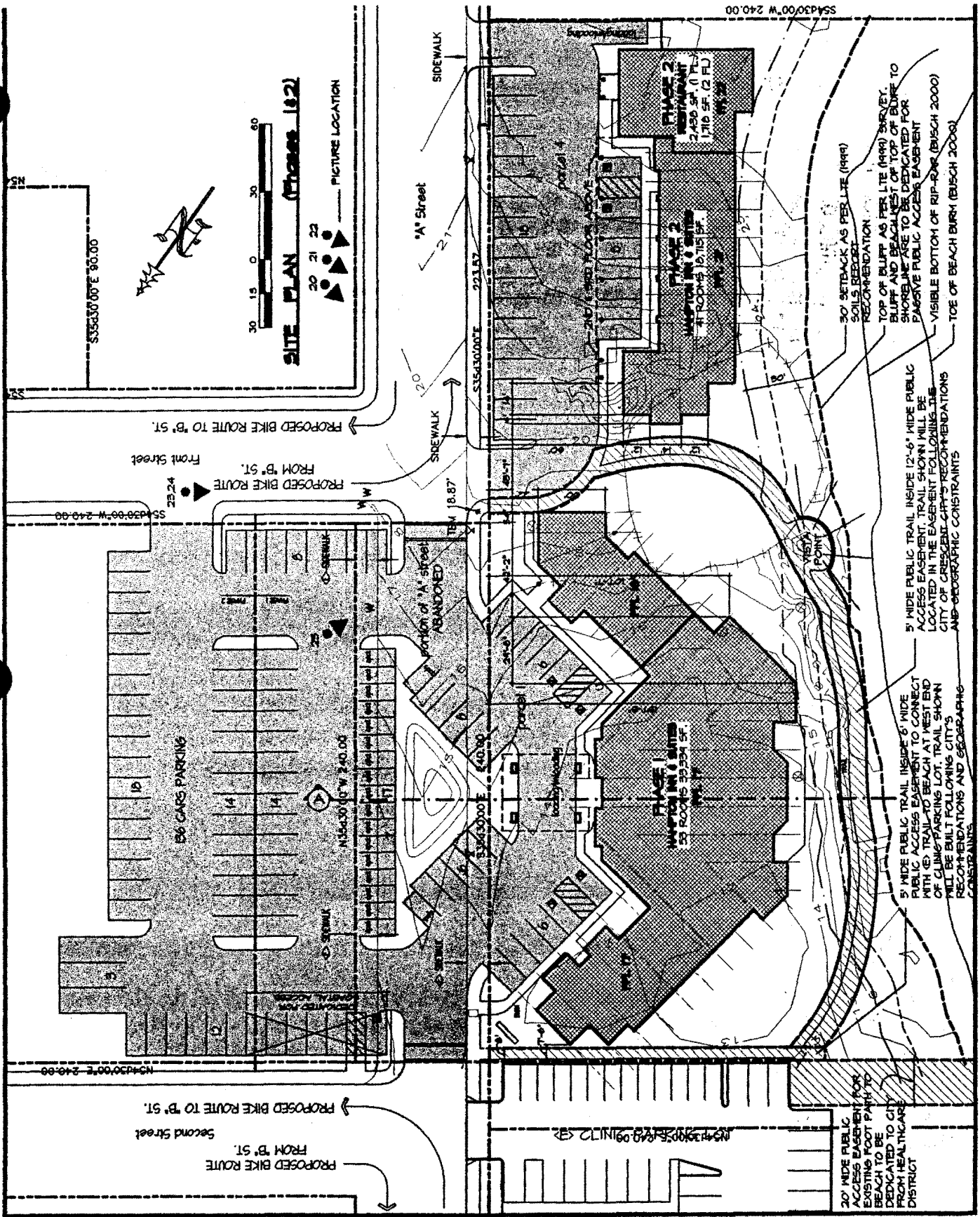


EXHIBIT NO.	3
APPLICATION NO.	A-1-CRC-00-033
VICINITY MAP	



HAMPTON INN AND SUITES
 for XIAO JIN YUAN
 "A" Street, Crescent City, Ca.

PHILIPPE LAPOTRE
 ARCHITECT
 4126 GREENWOOD HEIGHTS
 OAKLAND, CA 94612 (916) 443-4142

1" = 60'
9009b
83911

2 of 6

4/10/01

SITE PLAN
 (Phases 1&2)
 20 21 22
 PICTURE LOCATION



30' SETBACK AS PER LITE (1991)
 SOILS REPORT RECOMMENDATION
 TOP OF BLUFF AS PER LITE (1999) SURVEY.
 BLUFF AND BEACHLINE AT TOP OF BLUFF TO
 SHORELINE ARE TO BE DEDICATED FOR
 PASSIVE PUBLIC ACCESS EASEMENT
 - VISIBLE BOTTOM OF RIP-ROCK (BUSCH 2000)
 - TOE OF BEACH BURY (BUSCH 2000)

5' WIDE PUBLIC TRAIL INSIDE 12'-6" WIDE PUBLIC
 ACCESS EASEMENT. TRAIL SHOWN WILL BE
 LOCATED IN THE EASEMENT FOLLOWING THE
 CITY OF CRESCENT CITY'S RECOMMENDATIONS
 AND GEOGRAPHIC CONSTRAINTS

5' WIDE PUBLIC TRAIL INSIDE 6" WIDE
 PUBLIC ACCESS EASEMENT TO CONNECT
 WITH 12' TRAIL TO BEACH AT WEST END
 OF CLUB/PARKING LOT. TRAIL SHOWN
 WILL BE BUILT FOLLOWING CITY'S
 RECOMMENDATIONS AND GEOGRAPHIC
 CONSTRAINTS

20' WIDE PUBLIC ACCESS EASEMENT FOR
 EXISTING FOOT PARKING
 BEACH TO BE DEDICATED TO CITY
 FROM HEALTHCARE DISTRICT

REDWOOD OCEANFRONT RESORT LLC

2467 41st Ave.
San Francisco, CA 94116
Phone: (415) 566-6832
E-mail: xiaojin11@yahoo.com

April 12, 2001

Mr. Bob Merrill & Mr. Jim Baskin

California Coastal Commission

P.O. Box 4908
Eureka, CA 95502-4908

RE: Appeal No. A-1-00 (Redwood Oceanfront Resort) Revised and Amended Project Description

Dear Bob and Jim,

As you know, the coastal permit application for the Redwood Oceanfront Resort project is pending before the Coastal Commission for *de novo* review. As a result of recent decisions by the Coastal Commission and City of Crescent City, and discussions with your staff regarding the Redwood Oceanfront Resort project in Crescent City, I wish to submit the following amendments and clarifications regarding the project.

The project plans being submitted to you now include Phase 2 as well as Phase 1 in order to reflect the entire project being considered. These plans, prepared by project architect Philippe Lapotre, indicate recent design changes addressing visual and public access concerns. These include:

- a. Division of the project facility into two buildings to provide a public view corridor of off-street ocean and rocks from Front and A Streets.
- b. The number of rooms (53+41), footprint of buildings, square footage of buildings (33,339 and 18,715) and a 4,156 sf. (+/-) restaurant, and location of uses as a result of the change.
- c. The bluff top (Lee Tromble Engineers 1999 survey) and a 30' bluff setback as recommended by Lee Tromble Engineers 1999 soils report and confirmed by the Bush Geotechnical report (October 2000) are shown on the map to represent the relationship between the bluff and improvements.
- d. The location of the following easements for public access and, where proposed, trail development would be located, including:
 1. Lateral Beach Access – a public access easement to be dedicated to the City from the shoreline to the top of bluff for passive public recreation use. This is beach, no development is proposed in this area. The area of dedication shall consist of an easement spanning the width of the property from the northwest

The above are to be dedicated to the City of Crescent City pursuant to typical Coastal Commission requirements and procedures for dedication, including:

- a. The provision of legal descriptions of both the entire project site and the area of dedication shall be provided at the time of recordation;
- b. The dedications shall be recorded free of prior liens and any other encumbrances which the Executive Director of the California Coastal Commission determines may affect the interest being conveyed;
- c. The dedications shall require that any future development that is proposed to be located either in whole or in part within the area described in the recorded dedication shall require a Commission amendment, approved pursuant to the provisions of 14 CCR Sec 13166 and;
- d. The dedication documents shall be submitted for the review and approval of the Executive Director of the Commission prior to recordation and prior to issuance of the coastal development permit.

Also submitted for your information is a map and calculations by Lee Tromble, project engineer, indicating preliminary storm drainage solutions for the site pursuant to the most recent water quality concerns identified in the City LCP amendments. A discussion, prepared by the City, of the proposal to locate the bicycle route on the City A, 2nd and B Streets is also included.

It is my understanding that, with this information, your staff will be able to prepare a recommendation for Coastal Commission consideration of the permit. If you have any questions, please do not hesitate to contact me, or Diane Mutchie of the City of Crescent City.

Sincerely,

Xiao Jin Yuan
President
REDWOOD OCEANFRONT RESORT LLC

X.J.Y.
cc: David M. Wells

6 of 6

COASTAL ACCESS SURVEY
for the
PROPOSED REDWOOD OCEANFRONT RESORT PROJECT
CRESCENT CITY, CALIFORNIA

INTRODUCTION

A coastal access survey was conducted to determine visitor use levels along the portion of the Crescent City oceanfront closest to the proposed Redwood Oceanfront Resort Project. The survey area is the most central of three coastal access areas in or adjacent to the City. The other two areas, which were not part of this survey, are the Pebble Beach/Point St. George area to north and the Crescent City Harbor/South Beach area to the south.

The survey area covers approximately ½ mile of the Coastal Zone waterfront, from Howe Drive (in Beachfront Park) at the southeast limit to the intersection of Fourth Street and Taylor Street at the northwest limit.

This portion of the Crescent City coastline is characterized by a low bluff and gently sloping sandy beaches south of the Battery Point Lighthouse and adjacent to the Crescent City Harbor, at the southern limit of the survey area; and a higher bluff with relatively narrow beach and rocky and steeper shoreline north of the Battery Point Lighthouse.

SURVEY LOCATIONS

Six locations were chosen based on access to the beach, letter symbols A-F denote the specific survey locations (Figure 1):

Location A - Howe Drive in Beachfront Park. This location is at the west end of Crescent City's largest park, with parking and picnic tables adjacent to a gentle sloping sandy beach on the Crescent City Harbor. The close proximity of the road allows visitor parking that is a short walk to picnic tables and a protected beach.

Location B - Battery Point Lighthouse/Park. The Lighthouse parking area is located at the south end of A Street. There is a designated parking lot for up to 28 vehicles, with some available space for vehicles beyond the paved sections of the lot. The site is located on a bluff that slopes toward the shoreline with maintained trail access that leads to the lighthouse and the jetty. The location also has public restrooms. There are private residences to the northwest, a view of the lighthouse and coast to the west, and coastline and harbor views to the south.

Location C - Proposed 2nd Street Access. This survey location is on the coastal side of the 2nd Street & A Street intersection. To the north there is a medical clinic parking lot. There is no City maintained access, but an informal dirt trail has been created by foot traffic accessing the beach. The site is on top of the bluff above the high tide line, and the coastline at this location is steep and rocky. This is the closest location to the proposed Redwood Oceanfront Resort Project.

Location D - Third Street Access. This location at the end of Third Street has unmarked but available parking for 2-3 cars and a maintained staircase and trail leading to the beach. It is located on top of the coastal bluff and above the high tide line. There are private residences north and south of the parking area, with a view of the coast primarily to the west.

Location E - Fourth Street Access. This site is at the end of Fourth Street. There is unmarked but available space for parking of 2-3 vehicles, no maintained access to the beach but there is an informal and unmarked footpath leading from the street through brush to the beach. There are private residences to the north and south with a view of the coast primarily to the west.

Location F - Fifth Street Access. This is the northernmost site in the survey. There is unmarked but available space for parking of 3-4 vehicles. There is also pedestrian access to the beach via a set of stairs. There are private residences to the south and northwest, with coastal views to the west.

METHODOLOGY

The Coastal Access Survey was conducted over a two-day period, July 28th, and 29th, 2000. Three observations taken at each of the six locations, on a weekday (Friday) and a weekend day (Saturday). The three observation times for each day were chosen based on the tides, access to the lighthouse and exposed beaches, and estimated maximum visitor utilization of the coastal area.

The morning survey was taken between 9:00AM and 10:00AM, the mid day survey between 12:00PM and 1:50PM and the afternoon survey between 3:00PM and 4:30PM. Vehicle counts were taken each time at each location and on adjacent streets to get as complete a count of visitors as possible. Pedestrian counts were also taken each time at each location, resulting in a "snapshot" of pedestrian traffic at each time of the survey. The results of the surveys are presented in Table 1.

TABLE 1 - SURVEY RESULTS

ACCESS POINT A - HOWE DRIVE IN BEACHFRONT PARK			
Time and Day	# of Cars	# of Pedestrians	Notes
10:00 AM Friday	2	2	
12:30 PM Friday	6	7	Pedestrians utilizing picnic tables at the park.
3:30 PM Friday	3	11	Pedestrians utilizing picnic tables at the park and dispersed along the beach.
10:00 AM Saturday	2	5	
12:30 PM Saturday	8	24	Pedestrians utilizing picnic tables at the park and dispersed along the beach.
4:20 PM Saturday	5	17	Pedestrians utilizing picnic tables at the park and dispersed along the beach.

4 of 38

TABLE 1 – SURVEY RESULTS (continued)

ACCESS POINT D – END OF 3RD STREET			
Time and Day	# of Cars	# of Pedestrians	Notes
10:00 AM Friday	2	12	Group of 8 leaving beach using stairs at end of street.
1:20 PM Friday	2	0	
3:50 PM Friday	3	9	Two separate groups of people at the beach.
10:15 AM Saturday	1	0	
12:45 PM Saturday	2	6	Two groups and random walkers.
4:35 PM Saturday	1	4	
ACCESS POINT E – END OF 4TH STREET			
Time and Day	# of Cars	# of Pedestrian s	Notes
10:00 AM Friday	1	0	One mobile home and no cars.
1:30 PM Friday	0	5	
4:00 PM Friday	1	4	
10:20 AM Saturday	1	1	Same vehicle as Friday.
12:50 PM Saturday	0	0	
4:40 PM Saturday	0	0	

6 4⁵ 8

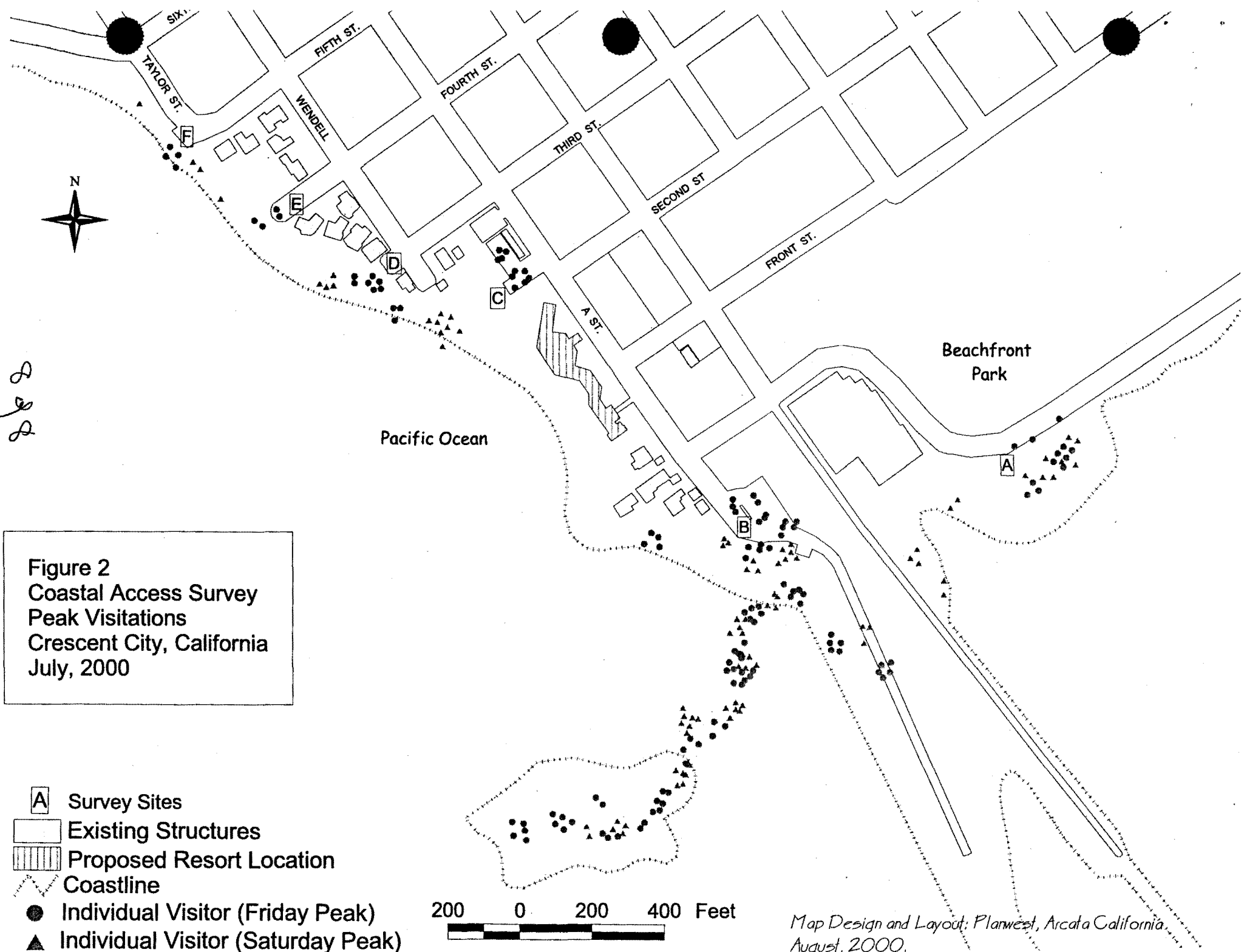


Figure 2
 Coastal Access Survey
 Peak Visitations
 Crescent City, California
 July, 2000

- A Survey Sites
- Existing Structures
- Proposed Resort Location
- Coastline
- Individual Visitor (Friday Peak)
- ▲ Individual Visitor (Saturday Peak)

200 0 200 400 Feet

Map Design and Layout: Planwest, Arcata California, August, 2000.

- ❑ Short of a major redesign of the subject project, which was before the Coastal Commission before this LCP text requirement was made, such a path must then be located either west or east of the main building. It is also assumed that such a path would be expected to connect with the existing Class 3 segments on A Street.
- ❑ To go west of the structure the proposed 5 ft wide pedestrian trail and easements would require more than doubling in width to provide a minimum 12 ft path. This would result in the loss of 6 motel rooms in the north wing. The location of the path would require redesign due to the need for acceptable curve radii for bicycle use, bringing the connection between the vertical and lateral bluff access trails closer to the building. In order to maintain connectivity with the existing beach footpath additional trail construction might be required. This would also conflict with the proposed infiltrator stormwater detention bed for the project roof runoff shown in the stormwater management information.
- ❑ To go east of the structure a separate 10 ft path/lane would need to be constructed across the parking lot. To connect to the existing facility this would need to be done at the entrances to the facility, necessitating wider driveway entrances at both A St intersections and changes in parking lot and stormwater detention area designs. Rider views from this path would be similar to those of the proposed B St. route.

Public Safety Issues

- ❑ The proposed bike facility keeps the Class 3 nature of the route throughout, minimizing changes and retaining the same level of risk factors throughout.
- ❑ The provision of a Class 1 trail on-site increases risks in the transitions from the Class 3 facility on-street to the Class 1 facility.
- ❑ The transitions at either of the A St intersections would include the potential for diagonal shortcutting by bicyclists to make the transition, across designated collector street intersections, even when marked driveway and street crossings are provided.
- ❑ The A St at Front St intersection in particular is a concern since this is the main entrance to the facility as well as a well traveled "visitor" road to the lighthouse two blocks south on A.
- ❑ The location of a Class 1 trail following the public access proposed west of the building would place the trail only a few feet from three different emergency fire exit doors from the hotel facilities. This increases risk of conflict between bicyclists and pedestrians exiting the motel in emergency or other situations.
- ❑ The location of a Class 1 path on the east side of the facility would place the trail at the facility entrances where loading/unloading and unpredictable vehicle movement is the greatest.

Proportionality

- ❑ The proposed facility replaces an existing Class 3 facility with a similar Class 3 bike facility.
- ❑ The proposed facility follows the route more commonly used by the majority of cyclists, who are from residential neighborhoods on the north, as well as identifying the route of interest to project visitors towards the south.
- ❑ The proposed facility delivers, at no further distance, the cyclists more directly to the park, pier and lighthouse areas at the B Street and Battery St. It also delivers cyclists directly to the lighthouse parking lot.
- ❑ The Coastal Access Survey-Peak Visitations study conducted for the project indicates that primary beach and recreation uses are to the south in the lighthouse and park area, or at neighborhood beach access points in residential areas further to the north. All are within two or three blocks walking distance of the project.
- ❑ No significant impacts upon off-site bicycle facility use from increased demand as a result of the hotel has been identified or demonstrated in the project Coastal Access Survey or under the project's CEQA review.
- ❑ No record of bicycle use to the existing prescriptive beach access at the adjacent clinic has been identified or noted in either the Coastal Access Survey or the City Bicycle Facilities Plan- bike parking needs section.
- ❑ The length of any Class 1 path on-site would be 240 ft (eastside)-500 ft (westside) long and would not be a connected circle. In itself the path would not provide an on-site recreational bicycling activity for hotel guests. Its major purpose therefor must be to entice off-site riders onto the site.
- ❑ Provision of a Class 1 path on the west side of the structure would further reduce the project potential by 6 units.
- ❑ Provision of a Class 1 path on-site would require the public, in the form of the City, to accept increased public liability for traffic conflicts on private property driveways and emergency access points as well as at two public road intersections. This where no demand for a public Class 1 path is demonstrated.

Conclusion

- ❑ There is no existing demand demonstrated for a Class 1 path in this bicycle route segment.
- ❑ There is no feasible location for any other Class 1 path development to connect to in this route segment.
- ❑ There has been no significant demand demonstrated from the project which would require Class 1 path development off site.
- ❑ There have been no existing prescriptive access rights demonstrated for bicycle access from off-site onto the project site which would warrant protection or preservation.
- ❑ The development of a Class 1 path on-site for public use would create potentially significant public safety risks for which the City of Crescent City would be asked to be responsible.
- ❑ Based upon these factors the City would find it infeasible to accept responsibility for either requiring or accepting such a facility for public use.



TABLE OF CONTENTS

INTRODUCTION	
Purpose of the Report and Contract Information	01
Site Location and Development Plan	02
Scope of Work and Investigation Methods	03
ENGINEERING GEOLOGY	
Encapsulation of the Regional Tectonic and Geologic Setting	05
Table 1. Test Pit Elevation Data	06
Site Stratigraphy	07
Qualitative Evaluation of Liquefaction-Induced Ground Failure Potential	12
Tsunami Run-Up Predictions	14
Estimate of Bluff Erosion Rate	16
<u>Literature Review</u>	16
<u>Placement Date of the Rip-Rap</u>	22
<u>Estimate of Bluff Erosion Rate Using Aerial Photographs</u>	
<u>(with Comments on Beach Changes between 1963 and 2000)</u>	23
<u>Estimate of Bluff Erosion Rate Without Rip-Rap</u>	25
<u>Rate of Global Sea Level Rise</u>	29
<u>Magnitude of Possible Coseismic Settlement</u>	29
<u>Summary Conclusion</u>	30
Discussion	30
<u>Unresolved Inconsequential Issues</u>	30
<u>Description of Rip-Rap</u>	31
<u>Description of Berm Crest and Risk of Wave Throw</u>	32
<u>Recommended Location of Vertical Beach Access and Lateral Walkway</u>	32
RECOMMENDATIONS	33
CLOSURE and AUTHENTICATION	36
REFERENCES CITED	37
LIST OF ATTACHMENTS (Figures and Appendices)	44
FIGURES	45
APPENDICES	52



The soils report previously prepared for the site (LTE, 1999) provides additional background information, the basic set of foundation soils recommendations, and a survey-controlled topographic site map of the building area of the lot.

We are delivering this report under the terms of BGC contract #00-046 dated August 15, 2000. We also are delivering an unedited video tape which we shot for Mark during the fieldwork session. **The report text and figures supercede all comments informally made during filming of the video tape.**

The project developer, X. J. Yuan, hired Busch Geotechnical Consultants (BGC) to provide a supplementary investigation and report specifically to provide the information requested by Mr. Johnsson in his letter of 4 August 2000, as modified by discussions between BGC principal Bob Busch, CEG, and Mr. Johnsson on 9/5/00.

Site Location and Development Plan

The project site is a bare tract of ground located in the southwesternmost part of Crescent City at the west end of Front Street immediately west of its intersection with "A" Street (see Figure 1). For approximately 60 of the last 70 years this site was the location of a hospital complex. The first part of the complex was built approximately in 1931. The complex was removed approximately in 1992 and the site was graded to its present configuration (Tromble, 9/22/00, pers. commun.).

The owner proposes to build an "upper-end" destination resort on the site, with parking across "A" Street. The motel is to be a three-story wood-frame structure. **The superstructure will be supported by reinforced grade beams resting on end-bearing reinforced concrete piers founded on bedrock.** The structure may have a partial "daylight" basement with a "floating" (nonstructural) slab floor. Details of the foundation design are unknown at this time.



extended the pit to bedrock (pits BGC-1, -2, and -4) or the maximum depth of the backhoe (BGC-3). Staff Engineering Geologist Steve Bacon, assisted by Staff Geologist Ronna Bowers, completed the soil horizon descriptions. Steve currently is completing a Masters Degree program at the Department of Geology, Humboldt State University, Arcata, specializing in neotectonics and Quaternary soils. We present our data (plus supporting explanatory information) as a series of figures and appendices at the end of the report (see List of Attachments).

We surveyed the top of bluff area, the limits of the rip-rap, the beach berm and back-beach area, and the swash zone and the top of selected rocks to supplement the mapping of the building area prepared by the project engineer (LTE, 1999) (see Figure 2, pocket). Staff geologists working under the direction of our principal complete our survey-controlled topographic and geohazards maps using a Sokkia Set 4A Total Station and SDR 33 Data Recorder. In the office we down-load the file into a microcomputer for processing and CADD-work. For this project we electronically merged the topographic map of the building area (LTE, 1999) with our map of the bluff face and beach to provide a base map that would allow us to complete profiles and geologic cross-sections.

We collected both disturbed (bulk) and undisturbed (tube) samples of selected soils and sediments (n=18 and 9, respectively), plus bulk samples of the St. George Formation (n=3), for laboratory analysis. In all test pits except BGC-3 we pushed the 3.65"-diameter heavy-wall brass tubes into the test pit wall. To sample pit BGC-3 we hand-augured a vertical borehole beside the logged test pit wall and used a manual impact-sampler to collect representative samples. We completed the testing in our Arcata, CA, soils lab. We present the results of standard soils index tests, plus information on the bedrock gathered from other sources, in Appendix IC.



occurred in 1700 AD (Atwater et al., 1991; Satake et al., 1996). An evaluation of the potential seismic hazard of the southern end of the Csz suggests that past Csz events have been on the order of 8.5 M or higher (Clarke and Carver, 1992). The probability of a Csz event is estimated at 10 to 20% within the next 50 years (Geomatrix, 1995).

Well-developed flights of deformed uplifted late Pleistocene marine terraces are not present in the Crescent City region as they are in the Brookings, Oregon, area to the north (Kelsey and Bockheim, 1994; Abelli, 1988) and the Humboldt Bay and Cape Mendocino areas of Humboldt County to the south (e.g., Stephens, 1982; Carver, 1985, 1992), but three subtle terraces are present (Polenz and Kelsey, 1999) (see Figure 4). As mapped by Polenz and Kelsey (1999), the terrace sediments at the site overlie a 105,000 yr-old (105 ka) abrasion platform cut into the regional bedrock, here lithologies of the Jurassic-Cretaceous Franciscan Complex (symbol KJfs) and the Miocene-Pliocene Saint George Formation (symbol Nsg) (see Figure 4).

In the site vicinity the surface of the bedrock reportedly has an average elevation of approximately 4 m (13.2 ft) MSL (Polenz and Kelsey, 1999), not including protruding knobs. However, in our backhoe test pits we encountered the bedrock surface at much lower elevations (5.7, 4.0, <7.5, and 2.8 ft MSL in test pits BGC-1 through -4, respectively) (see Table 1), and data by others also indicates lower elevations for the bedrock in the Battery Point area (W-C-S&A, 1965; HM&A, 1971).

TABLE 1. TEST PIT ELEVATION DATA

Pit #	Elev. Sta. 0 (Ft MSL)	Elev. Top of Basal Lag (Ft MSL)	Elev. Top of Bedrock (Ft MSL)	Bedrock Type
BGC-1	13.0	8.0	5.8	KJfs
BGC-2	12.9	>5.9*	4.0	Nsg
BGC-3	25.0	10.0	<7.5**	?
BGC-4	16.8	8.8	2.8	KJfs

*Top of basal lag layer stripped off at test pit location.

**Backhoe could not dig deep enough to encounter bedrock. Estimated elevation of bedrock, 7.0 to 4.0 ft MSL.



We described the soil profiles in test pits BGC-1 and -3 (Appendices IA1 and IA2) using the notation of the Soil Survey Staff (1975) with the modifications of Birkeland (1984) (Appendix IB3). The geomorphic position and soil development characteristics of test pit BGC-3 are consistent with the mapping and soil descriptions of Polenz and Kelsey (1999), who identified this surface as the 105 ka marine terrace. Two of the important soil development indicators used by Polenz and Kelsey (1999) to determine the relative age of different surfaces are the depth to the Cox horizon and the thickness of the Bt horizon. The Cox horizon represents slight weathering (oxidation) and provides an indication of the maximum depth of soil development. The Bt horizon represents the accumulation of clays and silts that have been transported down through the soil to specific depths. The thickness of the Bt horizon is a function of time.

Our soil log of test pit BGC-3 records a depth-to-Cox of ~108" and a Bt thickness of ~36". Exposed in the middle of the profile is a hard clayey silt horizon (3Btgb1) that is interpretable as a buried weathered loess sheet. This loess sheet in turn overlies a buried soil. It most likely was deposited during the last glaciation (~18 ka ago) when sea-level was approximately 400 ft lower than it is today. Directly above the loess sheet are weakly developed soil horizons. The 2Coxcb horizon is a well-sorted sand typical of eolian sand deposits (sand sheets or dunes). The horizon is featureless except for preserved animal burrows (krotovina), which suggests that it bioturbation destroyed all primary structures (such as cross-bedding) that may have been present in this sand. We interpret this portion of the soil profile to represent the deposition of eolian sands during the last 10 ka. Directly above these native soils is ~15" of cultural fill overlying a stripped surface within the topsoil horizon. We estimate that about 2.0 ft of organic-rich native topsoil is missing at this location.

Test pit BGC-1 also contains a relatively complete soil profile, but there are notable differences between this profile and that of BGC-3. These differences imply that the surface at BGC-1 is younger. BGC-1 is located in a swale (depression) that is ~10 ft lower in elevation than BGC-3. Although Polenz and Kelsey (1999) mapped



overlying soil horizons in these two pits are quite different. As discussed in a preceding paragraph, our working interpretation is that BGC-3 records an in-situ soil profile developed on the 105 ka abrasion platform whereas BGC-1 records a culturally stripped soil profile developed on an 83 ka surface eroded (by marine cutting) into the SP unit that rests on the basal lag layer that was deposited on the 105 ka surface.

Unit 4) In all locations explored, this SP layer rests on a basal lag deposit. Although we have coded this tabular to lenticular lag deposit as a well-graded gravel (GW) on our test pit logs, the deposit varies from a gravelly clayey sand (SC) to a gravelly well-graded sand (SW), to a sandy clayey or well-graded gravel (GC or GW). In most locations the deposit contains cobbles, some of which exceed a foot in maximum intercept length. The polymictic gravels are subrounded (few) to well-rounded (most) and include locally derived bedrock as well as reworked distant-source lithologies presumably derived from older terrace deposits no longer preserved in the site vicinity. Almost all boreholes by others in the site vicinity record this layer (W-C-S&A, 1965; HM&A, 1971).

Units 5 and 6) The geophysical bedrock, lithologies of the Jurassic-Cretaceous Franciscan Complex, notably graywacke sandstone, volcanic rock, and interbedded thin-bedded argillite and siltstone, is exposed in the nearshore waters as sea stacks and on the beach as "knockers" protruding from the 105 ka (and older) abrasion platform, which is being exhumed. We exposed KJfs bedrock (sandstone) in test pits BGC-1 and -4 (see Table 1 again).

In test pit BGC -2, the bedrock is the Miocene-Pliocene Saint George Formation, here a massive, featureless, dense, unfossiliferous blue-gray siltstone. The top surface of the siltstone (the 105 ka abrasion platform) contains pholad bivalve borings, most of which contain an in-situ organic root mass from nearshore marsh plants. At Point St. George, outcrops expose this abrasion platform in cross-section and plan views. There the formation is many meters thick, is a sandstone with interbedded siltstones, and is fractured. At the site the thickness of the formation is



Figure 6, north-south profile C-C' through test pits BGC-2 and -3 shows that the fill soils generally thicken to the northeast. The profile line passes near test pits LTE-1, -3, -4, and -5 so is well controlled. Figure 6, north-south profile D-D' through test pits BGC-1 and -3, shows the 105 ka surface and the deep excavation in the west-central portion of the lot (depth unknown).

Qualitative Evaluation of Liquefaction-Induced Ground Failure Potential

Liquefaction is the temporary partial or total loss of shear strength of a soil in response to cyclic loading, typically earthquake shaking. Saturated, geologically young (Holocene), unconsolidated, cohesionless, fine-grained sediments are particularly susceptible to liquefaction (CEE, 1985). There are no written records of liquefaction in the site vicinity (Youd and Hoose, 1978), and the Humboldt and Del Norte Planning Scenario (Topozada et al., 1995. Map S-3) assigns no liquefaction potential to the site area for a great (8.4 Mmax) earthquake on the Gorda segment of the Csz. That is, the liquefaction potential is considered to be NEGLIGIBLE for this low-probability, extreme event.

The qualitative approach to evaluating the liquefaction potential of a site is based on a consideration of the seismic setting (the probable accelerations), the site geology, the age of the sediments, the general physical characteristics of the sediments, and the groundwater conditions. Low potential seismic accelerations, more dense sediments, preHolocene sediments, fine-grained sediments, and a deeper groundwater table all reduce the potential for liquefaction and liquefaction-induced ground failure. The following paragraphs briefly discuss each of these factors at the site and present our evaluation.

Petersen et al. (1996) indicate that the earthquake likely to cause the dominant hazard for peak ground acceleration at 10% probability of exceedance in 50 years for alluvial site conditions is within 5 km of the site, that the magnitude of the quake is



Tsunami Run-Up Predictions

A tsunami is a seismically generated sea wave. Crescent City has experienced at least six tsunamis in the last 54 years (1946, 1952, 1957, 1960, 1964, and 1992) (Kilbourne and Mualchin, 1981; Oppenheimer et al., 1993). The greatest tsunami rise, over 13 feet, struck Crescent City about 1:45 a.m. on March 28, 1964. This was a distant-source tsunami generated by the Good Friday Alaska earthquake (M9.2). The waves did not reach the Seaside Hospital (the Yuan project site), but they inundated the hospital parking lot east of "A" Street, crossed "A" Street, and lapped up onto the northeasternmost corner of the hospital lawn, arriving not from the ocean to the west but from the bay margin to the east (Griffin, 1984). The tsunami did an estimated 16 million dollars worth of damage to the city (1964 dollars) (ibid.). The flood insurance rate map for the site (FEMA, 1986) indicates the tsunami was approximately a 500-year event. That is, the tsunami run-up was confined to Zones A and B and did not cross into Zone C, which is above the 500-year boundary. Currently, elevation 13.1 ft MSL is defined as the 100-year flood boundary and elevation 16.4 ft MSL is the 500-year flood boundary (USACOE, 1979).

Although the past belief was that locally generated tsunamis present less of a hazard than distant-source tsunamis to Pacific Northwest coastal communities (e.g., Kilbourne et al., 1980; Kilbourne and Mualchin, 1981), the recognition of the seismic capability of the Cascadia subduction zone (Heaton and Kanamori, 1984; Atwater, 1987; Grant and McLaren, 1987; Vick, 1988; Darienzo and Peterson, 1990; Darienzo, 1991; Clarke and Carver, 1992; Peterson et al., 1993) indicates that this is not true. Empirical data from other subduction zones (Heaton and Hartzell, 1986) and preliminary models of tsunami excitation and shoreward propagation (Hebenstriet, 1988; Bernard et al., 1994) suggest that a 8.5 M Csz earthquake along the northern California coast could generate a near-source tsunami with a run-up of over 10 m (33 ft) in low-lying coastal areas. Evidence of paleo-tsunami inundation has been discovered in more than a dozen bays in the Pacific Northwest (Peterson et al., 1992),



damage between the shore and 8th Street with the waves arriving from the ocean as well as the harbor (see Figure 7). The project site, along with most of the developed area of Crescent City near the port and old-town area, plus the unincorporated area south of the City, will be affected. The risk of damage due to the tsunami is approximately the same as the risk of a Csz earthquake (10 to 20% within the next 50 years). It is not possible to mitigate the risk of near-source tsunami damage at the site except by not building on it or by building a significantly reinforced structure with a first floor design elevation much higher than currently allowed by City regulations.

In summary, the risk of inundation of the project site by a near-source tsunami is **LOW** within the next 75 years (it is 1 to 2 chances in 10 within the next 50 years). Although the risk of damage to the proposed structure is the same (LOW) over this time period, if a Csz-generated near-source tsunami were to arrive, damage is certain at the site. Because the entire down-town area of Crescent City is exposed to the same level of risk from a near-source tsunami, yet development is being allowed to proceed by local and state regulators, it is grossly inappropriate to expect the project proponents to be subjected to development criteria that are not being applied elsewhere in at-risk areas of the city. In short, no additional mitigation is available to reduce the risk of damage by a near-source tsunami. However, it might be possible to reduce the loss of life due to the arrival of the tsunami by posting conspicuous warning notices in the motel instructing occupants to immediately move to high ground in the event of a very strong earthquake (see RECOMMENDATIONS).

Estimate of Bluff Erosion Rate

Literature Review

We are providing this lengthy discussion because of the discrepancies in the reports about the Crescent City shoreline between Battery Point and Point St. George. The discussion begins with comments made in the Crescent City Local Coastal Plan



stretch of coast, and around the seaward end of the outer breakwater [of the harbor] into the relatively protected area in the lee of the breakwater where it would accumulate. However, the report notes that sand has not been observed to accumulate here, or on the north side of the breakwater, nor on either side of the 1,200-ft-long causeway that connects the mainland with Outer Rock (a seastack southwest of the airport, which is about 2.75 mi north of the project site). Newly gathered data on sand mineralogy and grain size of the Crescent City beaches north and south of the harbor allowed the authors of the final report to conclude that although net littoral drift was north to south in the region, most of the sediments that reach Point St. George are lost to deep water off the point. The report further concludes that the mineralogy and shape characteristics of the sediments of the pocket beaches between Point St. George and Battery Point suggest that these sediments originate locally (in between these two points). The final report further suggests that the high waves and associated scour along the stretch of rocky coast upslope of the breakwater probably are sufficient to remove sand from depths above 30 feet. The report implies that sands moved to this depth do not return to the beaches (or invade the harbor).

In conclusion, neither USACOE report on the harbor provided either a qualitative or quantitative estimate of the erosion rate north of the harbor. Both reports concluded that there was no serious erosion problem along the coast north of the harbor. The final report explained the general lack of sand beaches north of the harbor as caused by the removal of longshore drift sand and locally derived sand to deep offshore waters by high energy waves.

Other area-specific reports written prior to the issuance of the final USACOE report on the harbor also did not provide either a qualitative or quantitative estimate of the erosion rate north of the harbor (Roberts et al., 1967; Roberts and Dolan, 1968, Roberts et al., 1970). A report that divided the coast between the mouth of the Smith River and South Beach into zones placed the Seaside Hospital beach in "Zone VII" and noted that "beaches are bedrock controlled" in this zone (Roberts et al., 1967).



Using this method he estimated an average bluff recession rate of 0.61 ft/yr, noting that the estimate did not merit two-decimal precision (*ibid.*, p. 12). He also noted that, "Geologic analysis reveals that while the upper half of the bluff is easily erodible alluvial soil, the lower portion is hard sandstone and shale. Since the classic mechanism of coastal bluff erosion presumes an undercutting of the toe, the hard material would be expected to govern the erosion process."

Anderson also presents a brief discussion of the possible true nature of the beach at the hospital, citing information not discussed by others. Specifically, in his discussion of the possible effects of the harbor's outer breakwater on the presumed south-to-north littoral drift of sand along South Beach, he notes that although the 1924 photograph shows a sand beach (he presumes it is sand), a map dated 1854 shows the coastal reach at the hospital site "with a symbol evocative of jagged, angular rocks" (CGS, 1884). He notes a map dated 1859 "uses a symbol evocative of a heavy surf zone extending to the base of the bluffs" (Anderson, 1977, p. 36; no specific map reference). He also notes neither map has a legend. Countering the argument for a natural rocky coast are anecdotal comments by "life-long Crescent City residents [who] remember the existence of a beach during their childhood prior to harbor development" (*ibid.*, p. 36).

In conclusion, although Anderson presents a thoughtful discussion and his own erosion-rate estimate, his use of an oblique photograph (in which the scale changes drastically and rapidly over short distances) makes his estimate (0.6 ft/yr) suspect at best.

The USACOE report on bluff erosion, which is the report from which the LCP quotes were excerpted, ostensibly is a useful research document. Among other information it provides six transverse profiles of the beach between Battery Point and 4th Street, including two west of the Seaside Hospital site, done in 1965, 1975, 1977, and April 1974(?), the later made just after an estimated 600,000 yds³ of dredge spoils were placed on the beach to conduct a beach nourishment study (see Figure



In conclusion, despite the impressive figures, the generalizations cited in the 1978 USACOE report about the bluff retreat rate between Battery Point and 4th Street are suspect due to the 1964 disturbances of the bluff face, a survey protocol that emphasized changes in the beach profile, and the presence of rip-rap on the hospital site (see Placement Date of the Rip-Rap, following).

The first state-issued report to focus at least partially on the stability of the shoreline notes that, "Examination of aerial photographs suggests that the shoreline segment [between Point St. George and the west Crescent City breakwater] is relatively stable in spite of its exposed condition" (Kilbourne and Mualchin, 1981, p. 31). No erosion rates are presented in the report.

Excluding the estimates given by Anderson (1977) and the Corps (USACOE, 1978), the first estimate (that we know of) of the coastal erosion rate north of Battery Point is given in Savoy and Rust (1985). Although there is a bibliography in this document, there is no specific reference source cited for the Crescent City area. Consequently, the origin of the multiple erosion-rate estimates cited in that report is unclear. We present detailed discussion of applicable portions of this document in a following text section.

Placement Date of the Rip-Rap

Our review of minutes of the Del Norte County Local Hospital District (DNCLCD, 1964ff) indicates that **the Del Norte County Road Department placed the rip-rap sometime between April 21 and May 19, 1964** (see Appendix II). The records indicate that the USACOE informed the hospital district that "...the removal of debris [from the March 1964 tsunami] left a portion of the bank adjoining the ocean in a condition that required immediate attention, and that the Corps of Engineers thought that a retaining wall of rip-rap had to be installed at once..." (ibid., June 23, 1964,



between the top of bluff and "A" Street on three different profile lines on each photo, one in the northern portion of the site, one in the midportion, and one in the south. This method is not quite as accurate as the method RBD used. In addition to measuring the street-to-bluff-top distances we made observations about adjacent properties and the beach, bluff top, and bluff face on the site.

RBD (1992) concluded that, "...erosion is currently not a problem in the study site. In some areas the shoreline has actually seemed to "grow" outward... We attribute this growth to the application of sand, rock and rip-rap to the shoreline."

Similarly, we conclude that, within the limits of our mapping accuracy (estimated at ~5 ft), the position of the top-of-bluff remained constant on the site between 1963 and 2000. Although the general appearance of the bluff face changed in the photographs over time, primarily due to the growth and removal or death of vegetation, we could not tell when the rip-rap was placed on the bluff. That is, the placement of the rip-rap in 1964 did not markedly change the character of the bluff face or shoreline as discernible in the 1963 and 1966 aerial photographs (see Description of the Rip-Rap, following). Two recent (bare) slope failures in the marine terrace are obvious on the promontory south of the site in the 1963 photographs, but no failure is visible on the project site in any photograph. The sequence of photos indicates that the two slope failures south of the site grew but stabilized and became vegetated over time.

The greatest and most obvious change on the site (excluding the removal of the hospital) was in the nature and width of the beach. In the 1963, '66, and '69 photos the beach is narrow, rocky, and steep, and tidepools are abundant, but in the 1976 photos the beach is wide, sandy, and contains more driftwood than in any other flight year. As noted previously, the Crescent City Harbor District placed about 600,000 yds³ of dredge spoil [silty sand and sandy silt] on the beach beginning in 1973 and ending in April, 1974 (USACOE, 1978), then made successive profiles of the beach to study the sand loss (see Figure 8). The 1989 photographs record a moderately wide sand beach and fewer logs, and the 2000 photographs again record a steep rocky beach with few logs.



erosion rate (in inches per year) for coastal areas for which the data were available at the time the book was written. In general, the authors made the estimates based on work by others. The precise origin of any specific estimate is unclear.

We paid particular attention to the relative degree of exposure, the beach aspect, and the bedrock type at the locations for which erosion rates are cited. In the Crescent City area, although there are multiple locations cited along Pebble Beach Drive and on Point St. George, which is about three miles north of the project site just beyond the north end of Pebble Beach Drive, the bedrock at these sites is the St. George Fm., which is comparatively erodible. No information is provided for Battery Point, which is one block to the south of the project site and is composed of Franciscan Complex sandstone overlain by terrace sediments. The closest documented location north of the site is at the west end of 7th Street where the cited mean rate is 7"/yr. Although the bedrock at this location is Franciscan Complex lithologies (primarily dense sandstone), the shoreline typically is cliff-backed and the bedrock base of the cliffs is approximately 15 ft high. We assume that this near-vertical bedrock base has a mean erosion rate of <math><1/4\text{"/yr}</math>, and infer that the cited 7"/yr rate represents a measurement of the rate of back-wasting of a specific slope failure located in the top of the bluff, which is composed of late Pleistocene marine terrace sediments. This measured rate is not appropriate to apply to the study site. Other more northerly locations along Pebble Beach drive have reported mean rates of 4" to 12"/yr, and locations on the Point St. George headland have reported rates of 4" to 25"/yr, but all of these sites are either erodible Saint George bedrock or marine terrace lithologies on a promontory or headland at the water's edge. That is, none of these rates is appropriate to use at the project site because its geology is different.

Our review of the rest of the shoreline of Del Norte and Humboldt Counties (as discussed in Savoy and Rust, 1985) indicates that the sites with published erosion rates typically are located in areas of active erosion where roads and homes have been damaged. There are only four locations on this entire two-county stretch of coast where we are certain that erosion-resistant Franciscan Complex rocks (typically



building is to be constructed on grade beams and piers founded on bedrock and engineered accordingly, shallow-seated failures of the terrace sediments can extend under the building. Therefore, theoretically, no setback is necessary. In addition, the building could be cantilevered across the setback line (see RECOMMENDATIONS).

Unfortunately, there are no nearby equivalent sites for which the erosion rate in marine terrace sediments has been measured, but at a cliff-backed open (unprotected) coastline site just north of Kamph Memorial Park near the California-Oregon border, an uplifted late Pleistocene marine terrace has a published erosion rate of 4" to 6"/yr (Savoy and Rust, 1985). Because that site, like the Crescent City region, also is rising faster than global sea level in response to Csz interseismic strain accumulation (Mitchell et al., 1994), it is likely that even the low rate of these estimated rates is high. We have done numerous studies for home construction along this open stretch of coast (BGC, 1988a, b, 1989a, b, 1994a, b, 1999) and have observed the edge of bluff and beach annually. With rare localized exception, the position of the top-of-bluff over this stretch of shoreline has remained stable (the annualized erosion rate has been 0" - <1"/yr) over the past 10-years-plus we have observed the cliff. Although this is an extremely short period of time from which to draw even tentative conclusions, a climatic extreme (El Nino) occurred during this time (during the winter of 1997-98) (Cannon et al., 1998) and caused significant erosion to some areas of the coastline of Humboldt, Del Norte, and Curry (OR) Counties coastline. We think 3"/yr is an appropriate average annualized rate for the project site (rather than 4"/yr or more) because the project site is more protected than the Kamph Park area (by offshore rocks, onshore rocks, a protruding headland to the north-northwest, and a harbor breakwaters to the southwest). **We estimate that if the rip-rap were removed the mean erosion-rate would increase to ~3"/yr. Using 3"/yr as the mean erosion rate and 75 years as the project lifespan, the setback is 19 ft.** Again, because the building is to be supported by piers founded on bedrock, failures of the terrace sediments could extend under the building. We recommend that this setback be inviolate if the rip-rap is removed, but it is permissible to cantilever the superstructure across the setback line (see RECOMMENDATIONS).



Summary Conclusion

Whatever erosion rate we assume for this site in the absence of rip-rap, it is a moot point because shoreline protection in fact exists and has since 1964. Now the existing rip-rap is well integrated into the shoreline, is effectively eliminating erosion, and should be left as-is. Two independent reviews of sequential air photos (RBD, 1992, and ours, herein) conclude there was no significant retreat of the project site shoreline over the period spanned by the photographs (for the two studies, respectively 1963-1989 and 1963-2000). With the rip-rap in place it is reasonable to use an annualized retreat rate of 0"/yr for the base of the bluff and 1"/yr for the top of the bluff and to base setbacks on these rates. The risk of shoreline erosion lowers each year because there is net uplift at the site (the uplift rate exceeds the rate of global sea level rise). This will hold true until the next Csz event. Then, if the site experiences coseismic subsidence, rapid-rate erosion of the bluff is likely to begin, even with the rip-rap in place.

Discussion

Unresolved Inconsequential Issues

Although our test pits and literature research did not resolve all possible outstanding geotechnical issues, they did allow us to address all significant issues relevant to the construction of the proposed structure, notably the liquefaction potential of the site, the depth to bedrock, and the estimated top-of-bluff erosion rate. Examples of unresolved inconsequential issues include the distribution of the Saint George Fm. and the depth to the Franciscan bedrock over the entire site; the configuration of the edge of the marine terrace edge (which is hidden beneath the rip-rap and beach berm cobbles); the variation in the elevation of the groundwater table across the site through-out the year; and details of the construction of the existing rip-rap prism.



Description of Beach Berm Crest and Risk of Wave Throw

The elevation of the berm crest on the back beach is relatively constant. A consideration of Figure 2 (pocket) indicates that the berm crest is highest in the central portion of the site (~15 ft MSL, or ~18.5 ft Mean Lower Low Water) where it butts against the bluff-face. In the northern part of the site, where it is separated from the base of the rip-rap by up to about 25 feet of back beach, it is only a foot lower (14 ft MSL). A review of wave refraction diagrams (USACOE, 1965, 1972) and aerial photographs indicates that it is wave refraction dynamics that are controlling the configuration of the beach berm crest. One implication of this berm configuration is that during winter storms the swash is more likely to run up onto the face of the rip-rap in the central and southern portions of the site. There is no historic (anecdotal) evidence that debris from waves ever damaged the hospital, nor that the risk of wave throw is higher in one portion of the site than another.

Recommended Location of Vertical Beach Access and Lateral Walkway

From a geotechnical perspective, vertical access to the beach is most favorable in the northern part of the property because the elevation of the ground is approximately the same as the elevation of the back-beach. Little modification is required to the rip-rap or grounds, and stairs or a ramp is unnecessary (unless ADA requirements so dictate).

If a lateral walkway is constructed on the top of the bluff, and if the purpose of the walkway is to provide views of the seashore and not the inside of hotel rooms, it makes no esthetic sense to locate the walkway anywhere but near the bluff edge. From a geotechnical perspective, "near the bluff edge" means, "at the landward edge of the rip-rap where that edge is not located on a steep portion of the bluff face." For example, in the northern part of the site the rip-rap abuts a flat-topped earthen fill prism that is safe and easy to walk across. However, in the central and southern



Presently the rip-rap has settled in to become an integral part of the shoreline; removing it will cause extensive damage to the natural back beach area and bluff face and will cause an increase in the erosion rate as a response to the excavations. Replace the existing concrete slabs and any loose concrete rubble with an equivalent amount of native rock boulders to improve the aesthetic appearance of the bluff. Also, encourage the growth of native plants and grasses among the replacement rocks. In our opinion, a rubble-mound revetment or other large shoreline protection structure (cf those designs presented in USACOE, 1978) is unwarranted and inappropriate. **In the event substantial repairs need to be made to the rip-rap following an extraordinary storm event, do not extend the rip-rap farther out onto the beach unless the existing beach cobbles and driftwood in the improvement path are removed first. Also, do not build the rip-rap over 1 ft higher than the top of the bluff at the repair site. Replace the cobbles and driftwood at the toe of the repaired rip-rap as appropriate.**

REC 4. With the rip-rap in place, use an inviolate building (foundation and superstructure) setback of 6.25 ft. If the building is constructed less than 10 feet from the top of bluff, before completing engineering design determine if special precautions are required to mitigate a potential wave-throw hazard, which we did not investigate. Although the anecdotal record suggests otherwise, the risk of damage by wave throw may dictate that special engineering design considerations (such as a raised first floor level, solid balcony floors and deck railings, and/or tempered glass windows) be used for the ground floor of the building. Consider any additional setback beyond 6.25 ft to be a safety factor. For example, a setback of 10 ft would be a safety factor of 1.6 and a setback of 30 ft would be a safety factor of 4.8.

REC 5. If the rip-rap is removed and you wish to keep the engineering design of the building as simple as possible, use a minimum foundation setback of 19 ft. If a closer distance to the bluff than 19 ft is desired, either cantilever the building superstructure across the setback line or cross the setback line no more than 10 feet but engineer the foundation to stand free (with no lateral



CLOSURE and AUTHENTICATION

Because the site is located in a tectonically active region that could be struck by a catastrophic earthquake followed by a tsunami, nothing written in this report should be construed to state or imply a guarantee of safety. All parties--the owner, his consultants, and City and State regulators--must acknowledge the possibility of a catastrophic event. The risk of this event, and of damage and loss of life due to the event, is no higher at this site than at many other nearby low-lying sites in Crescent City (and along the coast of the Pacific Northwest in general). Because the only way to eliminate the risk of damage and loss-of-life due to this low-probability event is to not build, but this mitigation option currently is not the preferred option (due to the relatively low probability of its occurrence), construction need only mitigate the risks associated with higher probability geohazards.

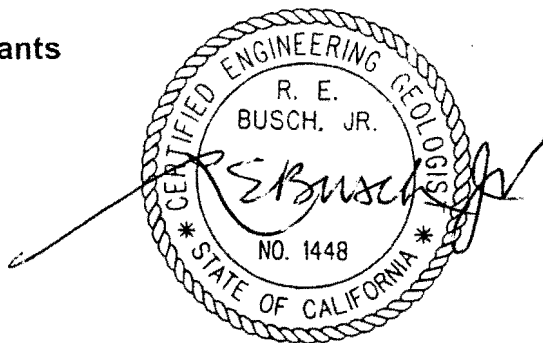
Thank you for hiring us.

Respectfully submitted,

Busch Geotechnical Consultants

R. E. Busch, Jr., Ph.D.
C.E.G. #1448

Steve Bacon
Staff Engineering Geologist



REB/SNB: azb2+

D: REB\c:\MSW\Yuan.doc

Attached: References Cited
 List of Attachments
 Attachments



- BGC. 1989a. Geologic hazards and risks at the Luyks coastal bluff-top lot (AP# 102-082-12), Gilbert Creek area, Del Norte County, CA, with detailed soils engineering recommendations. Unpubl. open-file rept., Del Norte Co. Dept. Planning, Crescent City. 34 pp.
- BGC. 1989b. Soils engineering considerations, results of factor-of-safety analysis, and final recommendations for the Loogman property (AP# 102-082-05), Gilbert Way, Smith River, CA. Unpubl. open-file rept., Del Norte Co. Dept. Planning, Crescent City. 23 pp.
- BGC. 1994a. Revised bluff-top setbacks based on the results of quantitative stability analysis, Struebing Ocean View Subdivision, Smith River, Del Norte County, CA. Unpubl. open-file rept., Del Norte Co. Dept. Planning, Crescent City, CA. 67 pp. + over-sized map.
- BGC. 1994b. Final geotechnical report for Lot #1 [Westbrook personal home], The Beach Subdivision, Smith River, California. Unpubl. open-file rept., Del Norte Co. Dept. Planning, Crescent City, CA. 29 pp. (incl. appends.) + over-sized fig.
- BGC [Busch Geotechnical Consultants]. 1999. Results of site-specific wet-weather investigation of leachfield soil suitability for sewage disposal system repair and new construction, Dean/Miller properties, 16591 Highway 101, Smith River, CA, with two SDS designs. Unpubl. open-file rept., Del Norte Co. Dept. Planning, Crescent City, CA. 17 pp. + appends. + over-sized map.
- Birkeland, P. W. 1984. Soils and geomorphology. Oxford Univ. Press, New York. 372 pp.
- Cannon, S. H. et al. 1998. Slope failure and shoreline retreat during northern California's latest El Nino. GSA Today. Vol. 8, No. 8. Pp. 1-6.
- Carver, G. A. 1992. Late Cenozoic tectonic evolution of coastal northern California. AAPG-SEPM Field Trip Guidebook.
- Carver, G. A. 1985. Quaternary tectonics north of the Mendocino triple junction, pp. 155-167. IN, Kelsey, H. M., Lisle, T. E., and Savina, M. E. (eds.). Redwood country guidebook. American Geomorphological Field Group 1985 Field Trip.
- Carver, G. A., Stephens, T., and Young, J. C. 1985. Quaternary geologic map of the Mad River fault zone. 5 1:24,000 map sheets and legend. Unpubl.
- CC [Crescent City Planning Department]. 1983. City of Crescent City local coastal plan: coastal development permit manual. 61 pp. + 17 exhibits.



- Field, M. E., Clarke, S. H., Jr., and White, M. E. 1980. Geology and geologic hazards of offshore Eel River basin, northern California continental margin. U. S. Geological Survey open-file rept. 80-1080. 80 pp.
- Galloway, J. P., Watkins, A. M., Peterson, C. D., Craig, S. C., and McLeod, B. L. 1992. Study of tsunami inundation of Ecola Creek wetlands and spit, Cannon Beach, Oregon. Final rept. to Clatsop Co. sheriffs office, Clatsop Co., OR. 25 pp.
- Geomatrix. 1995. Seismic design mapping State of Oregon. Prepared for the Oregon Department of Transportation, Salem, OR. 288 pp.
- Gonzales, F. J. and Bernard, E. N. 1992. The Cape Mendocino tsunami. Special issue: the Cape Mendocino earthquakes of April 25-26, 1992. Earthquakes and Volcanoes, Vol. 23. Pp. 135-138.
- Grant, W. C. and McLaren, D. D. 1987. Evidence for Holocene subduction earthquakes along the northern Oregon coast. EOS, Vol. 68. Pp. 1239.
- Griffin, W. H. 1984. Crescent City's Dark Disaster. Crescent City Printing, Inc.
- HM&A [Hallenbeck, McKay & Associates. 1971. Soil investigation for the Crescent City sewage treatment plant additions.
- Heaton, T. H. and Hartzell, S. H. 1986. Source characteristics of hypothetical subduction earthquakes in the northwestern United States. Seismological Society of America, Bull., Vol. 76. Pp. 675-708.
- Heaton, T. H. and Kanamori, H. 1984. Seismic potential associated with subduction in the northwestern United States. Seismological Society of America, Bull., Vol. 74. Pp. 933-941.
- Hebenstriet, G. T. 1988. Local tsunami hazard assessment for the Juan de Fuca plate area. Technical Rept. to U.S. Geological Survey, National Earthquake Hazard Reduction Program. 27 pp.
- Hitchcock, C. S., Loyd, R. C., and Haydon, W. D. 1999. Mapping liquefaction hazards in Simi Valley, Ventura County, California. Environmental and Engineering Geoscience, Vol. V., No. 4. Pp. 441-458.
- ICBO [International Conference of Building Officials]. 1997. Uniform Building Code, Vol. 1, 2, and 3. ICBO, Whittier, CA.
- Kelsey, H. M. and Bockheim, J. G. 1994. Coastal landscape evolution as a function of eustacy and surface uplift rate, Cascadia margin, southern Oregon. Geological Society of America, Bull., Vol. 106. PP. 840-854.



- Peterson, C. D., Briggs, G. G., Palmer, L. A., and Yeager, R. K. 1992. Identification of potential coastal hazards in selected areas of Curry County, Oregon. Final technical Report. For Curry County Planning Dept., Gold Beach, OR. 83 pp., + appends.
- Peterson, C. D., Darienzo, M. E., Burns, S. F., and Burris, W. K. 1993. The paleoseismic record of subsidence, tsunamis, liquefaction, and landslides from the northern Oregon coast: Evidence of subduction zone seismicity in the central Cascadia margin. 26th Annual Pacific Cell Meeting, Friends of the Pleistocene Field Trip Guide. April 23, 24, 25, 1993. 69 pp.
- Peterson, C. D., Doyle, D. L., and Barnett, E. T. 2000. Coastal flooding and beach retreat from coseismic subsidence in the central Cascadia margin, USA. Environmental & Engineering Geoscience, Vol. VI, No. 3. Pp. 255-269.
- Polenz, M. and Kelsey, H. M. 1999. Development of a late Quaternary marine terraced landscape during on-going tectonic contraction, Crescent City coastal plain, California. Quaternary Res., Vol. 52. Pp. 217-228.
- RBD [Richard B. Davis Co.]. 1992. Shoreline erosion study of Sutter Coast Hospital site, Crescent City, California. Unpubl. rept. for client dated February 7. R. B. Davis Co., Smith River, CA. 5 pp.
- Reynolds, Norma. 2000. Personal communication regarding 1963 invoices from Del Norte Co. Road Dept. to Seaside Hospital. Mrs. Reynolds is the officer of the Del Norte Health Care District who researched the 1963 invoices. She can be reached at 464-9494.
- Roberts, J. A. and Dolan, R. 1968. Coastal geomorphology of the Smith River plain. Shore and Beach (April). Pp. 4-11.
- Roberts, J. A., Bleistein, D. M., and Dolan, R. 1967. Investigations of marine processes and coastal landforms near Crescent City, California. Atmospheric Research Group. Final rept. to Earth Sciences Div., Dept. of the Army, U.S. Army Natick Laboratories, Natick, Mass., Vols. I and II.
- Roberts, J. A., Beesmer, K. M., and Seeman, E. L. 1970. Littoral transport study, Crescent City Harbor, California.
- Satake, K., Shimazaki, K., Tsuji, Y., and Ueda, K. 1996. Time and size of a giant earthquake in Cascadia inferred from Japanese tsunami records of January 1700. Nature, Vol. 379. Pp. 246-149.
- Savoy, L. and Rust, D. 1985. Part two. 7. The northern California coast: Oregon border to Shelter Cove, pp. 81-105. IN, Griggs, G. and Savoy, L. (eds.). Living with the California coast. Duke Univ. Press, Durham, N.C. 393 pp.



- Vick, G. S. 1988. Late Holocene paleoseismicity and relative sea level changes of the Mad River Slough, northern Humboldt Bay, California. Unpubl. M.S. thesis, Dept. Geology, Humboldt State Univ., Arcata, CA. 87 pp.
- Vincent, P. 1989. Geodetic deformation of the Oregon Cascadia margin. M. S. thesis, Univ. of Oregon, Eugene. 86 pp.
- W-C-S & A [Woodward-Clyde-Sherard and Associates. 1965. Preliminary soil investigation for the redevelopment of a portion of Crescent City, Crescent City, California. Prepared for the Redevelopment Agency of the City of Crescent City.
- Youd, T. L. 1994. Personal communication cited in Topozada et al., 1995, p. 29.
- Youd, T. L. and Hoose, S. N. 1978. Historic ground failures in northern California triggered by earthquakes. USFS Prof. Paper P-993. 177 pp.
- Youd, T. L. and Perkins, J. B. 1978. Mapping liquefaction-induced ground failure potential. Journal of Geotechnical Engineering, Vol. 104. Pp. 433-446.

LIST OF ATTACHMENTS

Figures

1.	Nested Location Map	45
2.	Topographic Map of the Project Site	Pocket
3.	Regional Geologic Setting of the Project Site	46
4.	Crescent City Coastal Plain Geologic Provinces and Terraces	47
5.	East-West Geologic Cross-Sections A-A' and B-B'	48
6.	North-South Geologic Cross-Sections C-C' and D-D'	49
7.	View of Crescent City showing Tsunami Run-Up Limits	50
8.	Beach Profiles, Crescent City Bluff (USACOE, 1978, Plate 2)	51

Appendices

IA1.	Logs of Test Pits BGC-1 through -4	52
IA2.	Soil Horizon Data Sheets for Test Pits BGC-1 and -3	56
IB1.	USCS & USDA Soil Classifications and Unified Rock Classification	59
IB2.	Key to Soil Horizon Data Sheet Abbreviations	62
IC.	Summary of Yuan Lab Test Data and Other Relevant Soils Data	63
II.	Excerpts from DNCLHD Minutes, 1964ff	64
V.	Tectonic and Seismic Setting (including 3 figures)	66



Figure 3. Left. Regional tectonic setting of the Pacific Northwest. Right. Physiographic setting of the Crescent City area. Both figures from Polenz and Kelsey (1999). St. George fault and Smith River fault from Clarke (1992); St. George Reef scarp from Roberts and Dolan (1968).

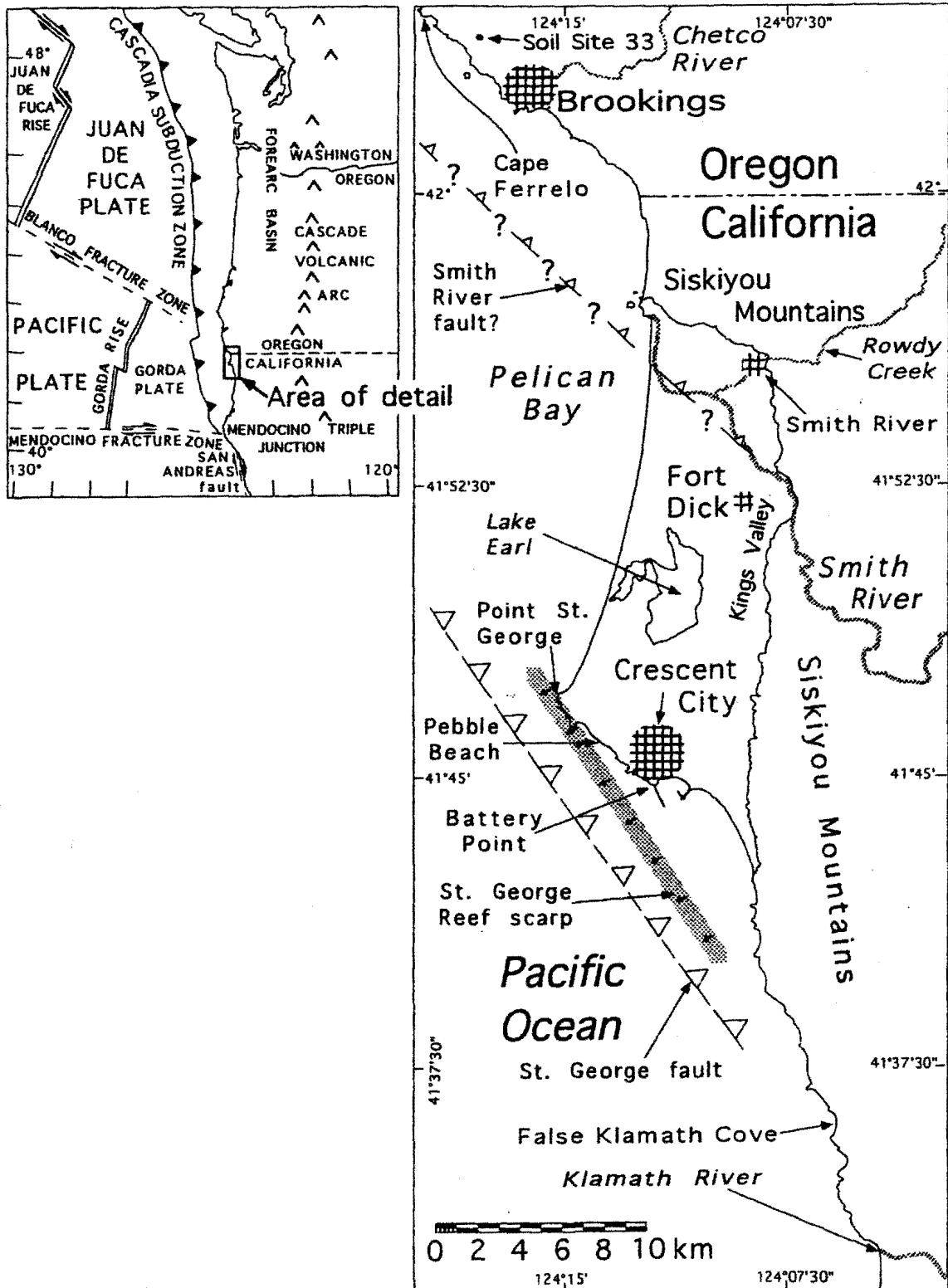




Figure 5. East-West Profiles and Geologic Cross-Sections. See Figure 2 for locations of the sections. **Top, A-A'.** Note 105 ka abrasion platform surface and remnant of St. George Formation, here a dense siltstone, on top of older (Miocene) abrasion platform cut into Franciscan lithologies. Also note that the beach berm crest does not lap up onto the rip-rap. **Bottom, B-B'.** Note that the beach berm crest laps up onto the rip-rap.

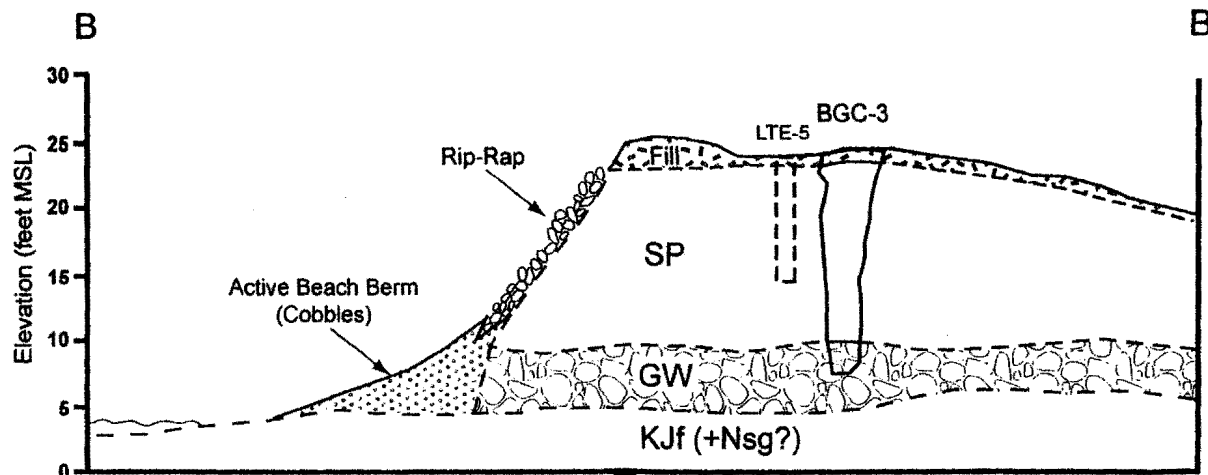
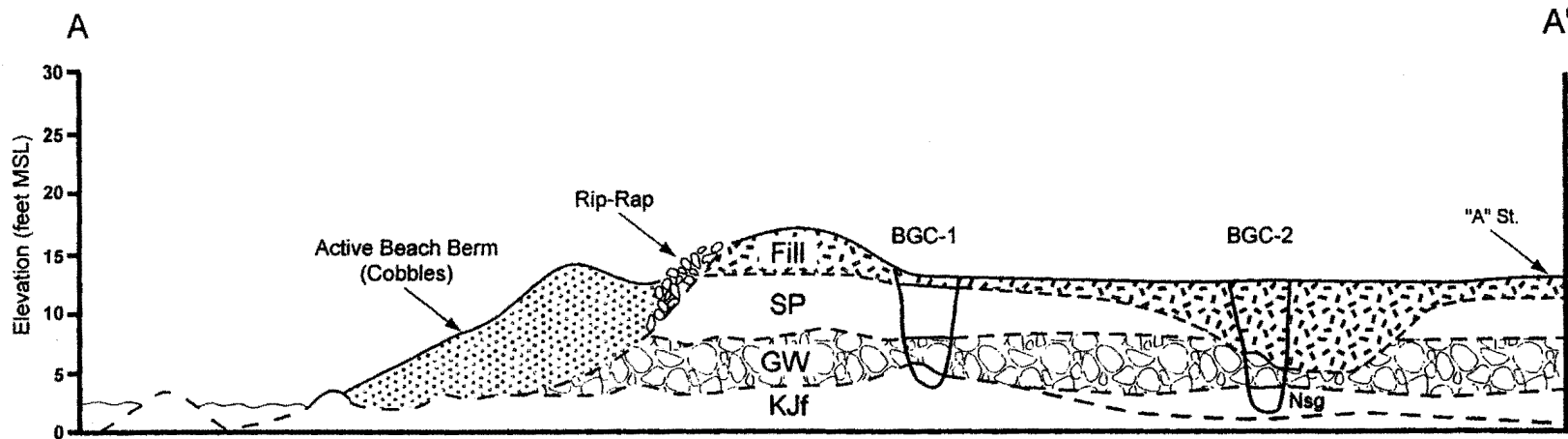
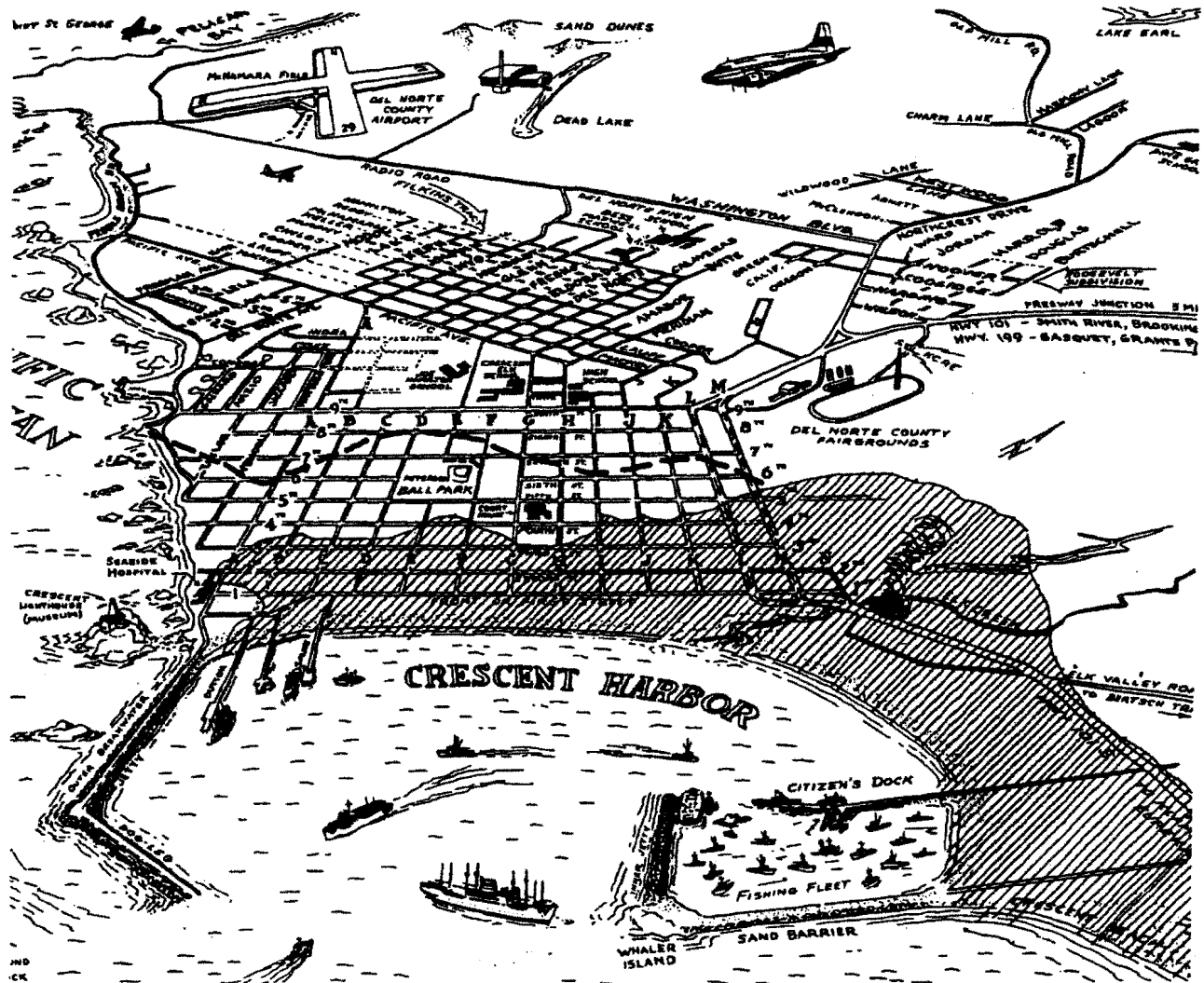
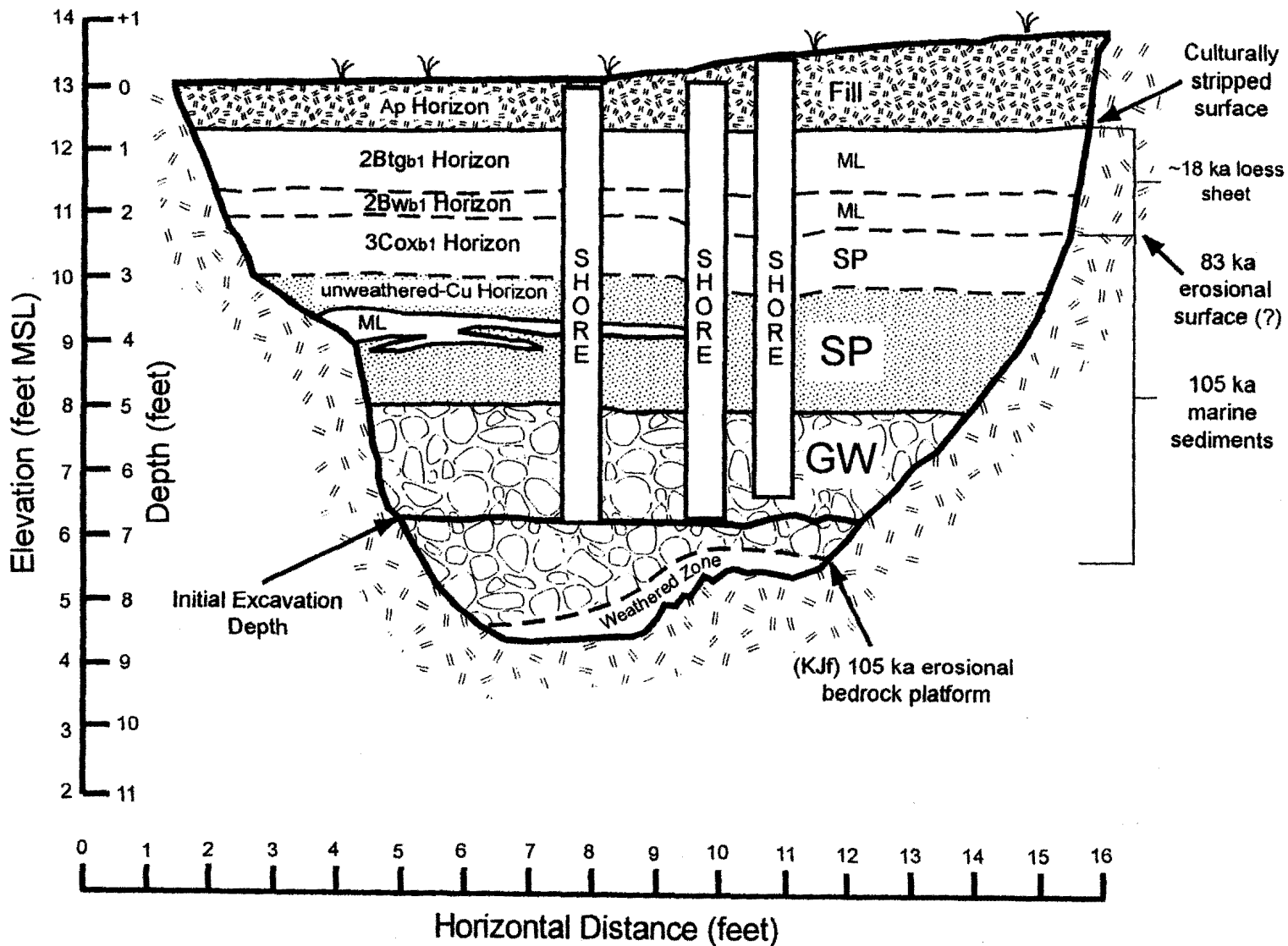




Figure 7. Perspective map showing the extent of flooding (shaded) in Crescent City from the March, 1964, distant-source tsunami and from a postulated flooding event from an 8.4M Gorda segment Csz earthquake-event near-source tsunami as modeled in the Humboldt-Del Norte planning scenario (Topozada et al., 1995). Figure modified from Griffin, 1984. Postulated run-up from the near-source tsunami is shown as a dashed line.

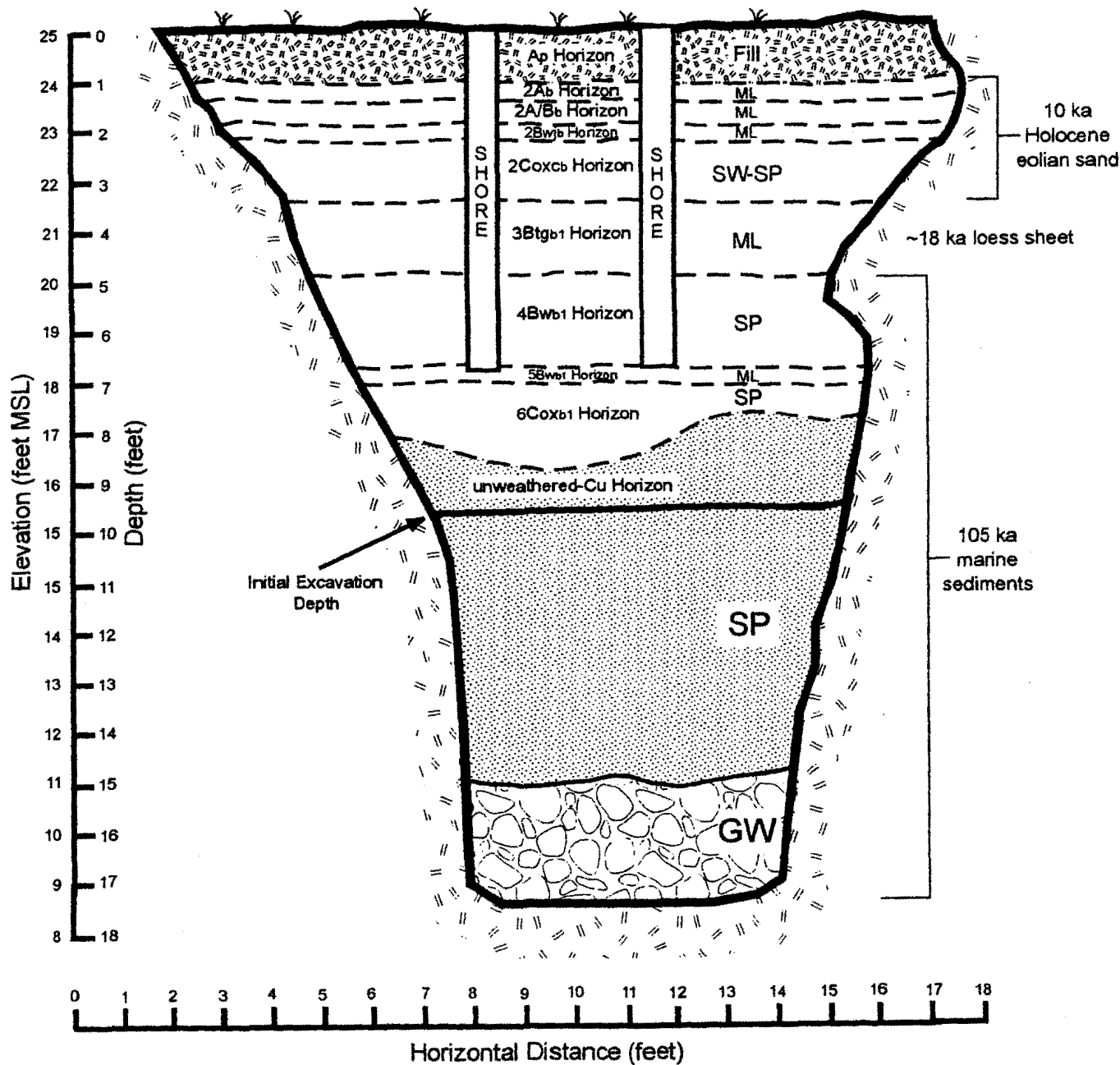


Appendix IA1. Log of Test Pit BGC-1, Yuan site. See text for discussion of soil horizons, SP and GW units, and inferences about the age of the ground surface at this location. Soil samples were collected between the shores. See Appendix IC for soils index data.





Appendix IA1. Log of Test Pit BGC-3, Yuan site. See text for discussion about soil horizons, the estimated depth to bedrock at this location, and the soil sampling method for this particular trench.





Appendix IA2. Soil Horizon Data Sheets

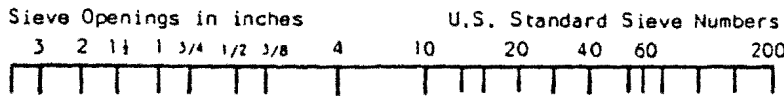
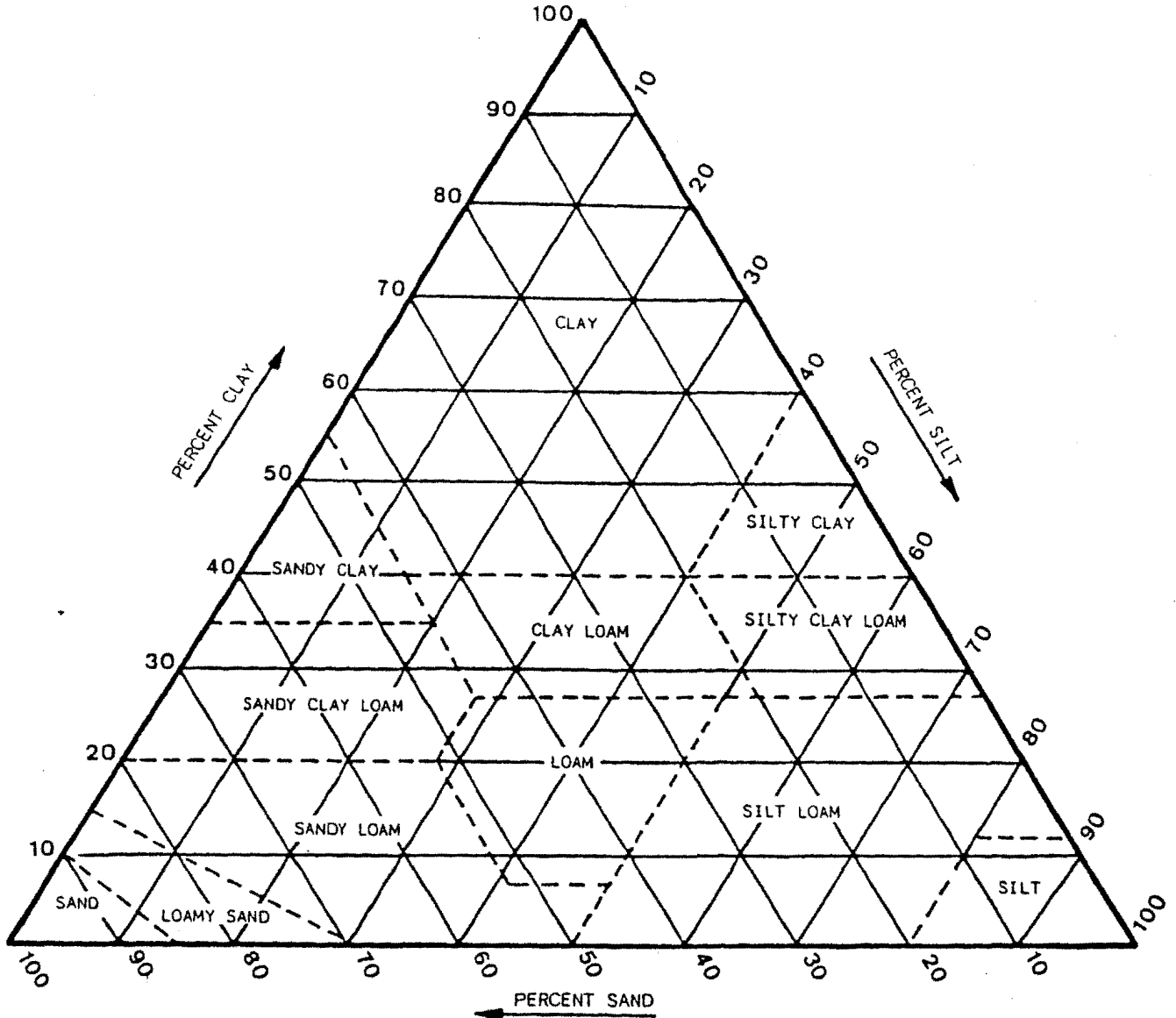
Soil Description: Location YUAN: REDWOOD OCEANFRONT RESORT
 Site No. BCC-1 Date 9/13/00 Time 11:15 Vegetation GRASS
 Elevation 13' MSL Slope >5' Aspect _____ Geomorphic Surface DISTURBED MARINE TERRACE
 Parent Material(s) SILTY SAND & COLLIAN CAP Described by SND / RSB

Depth (cm) in.	Horizon	Color		Structure	Gravel		Consistence			Texture	pH	Clay Films	Bound-aries	Notes*
		(moist)	/ dry		%	Wet	Moist	Dry						
0-8	Ap "FILL"	2.5Y 4/4 Olive Brown		m vf gr sg (f) pl 1 m pr 2 c cpr 3 vc abk sbk	0 50 <10 75 10 >75 25	so po (ss) (ps) s p vs vp	lo vfr fr fi vfi eh	(lo) so sh h vh eh	S SiCL LS (SiL) SL Si SCL SiC L C CL SC		vl (f) pf 1 (po) 2 d br 3 co p cobr	a s (c) (w) g i d b	TOPSOIL-BASED FILL -15% CLAY	
8-19	Ap "FILL"	2.5Y 5/2 Gray Brown		m vf gr sg f pl 1 (m) pr 2 (c) cpr 3 vc (abk) sbk	0 50 <10 75 10 >75 25	so po (ss) (ps) s p vs vp	lo vfr fr fi vfi eh	lo so (sh) h vh eh	S SiCL LS (SiL) SL Si SCL SiC L C CL SC		vl (f) (pf) 1 (po) 2 d br 3 co p cobr	a s (c) (w) g i d b	15% CLAY	
19-30	2Bt gbl	5Y 5/2 Olive Gray		m vf gr sg f pl 1 (m) pr 2 (c) cpr 3 vc (abk) sbk	0 50 <10 75 10 >75 25	so po ss ps (s) (p) vs vp	lo vfr fr fi vfi eh	lo so (sh) h vh eh	S SiCL LS SiL SL Si SCL SiC L C CL SC		vl (f) (pf) 1 po 2 d br 3 co p cobr	a s c w (g) i d b	30% CLAY	
30-35	2Bw bl	5Y 5/2 Olive Gray		m vf gr sg f pl 1 m pr 2 c cpr 3 vc (abk) sbk	0 50 <10 75 10 >75 25	so po (ss) (ps) s p vs vp	lo vfr fr fi vfi eh	lo so (sh) h vh eh	S (SiCL) LS SiL SL Si SCL SiC L C CL SC		vl (f) pf 1 po 2 d br 3 co p cobr	a s (c) (w) g i d b	10% CLAY	
35-50	3C ox bl			m vf gr (sg) f pl 1 m pr 2 c cpr 3 vc abk sbk	0 50 <10 75 10 >75 25	(so) (po) ss ps s p vs vp	lo vfr fr fi vfi eh	(lo) so sh h vh eh	S (LS) LS SiL SL Si SCL SiC L C CL SC		vl f pf 1 po 2 d br 3 co p cobr	a s (c) (w) g i d b		
50+	Cu			m vf gr (sg) f pl 1 m pr 2 c cpr 3 vc abk sbk	0 50 <10 75 10 >75 25	(so) (po) ss ps s p vs vp	lo vfr fr fi vfi eh	(lo) so sh h vh eh	S (LS) LS SiL SL Si SCL SiC L C CL SC		vl f pf 1 po 2 d br 3 co p cobr	a s c w g i d b		
				m vf gr sg f pl 1 m pr 2 c cpr 3 vc abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo vfr fr fi vfi eh	lo so sh h vh eh	S SiCL LS SiL SL Si SCL SiC L C CL SC		vl f pf 1 po 2 d br 3 co p cobr	a s c w g i d b		

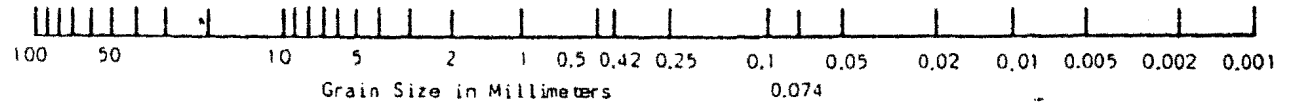
Soil Description: Location YUAN: REDWOOD OCEANFRONT RESORT PAGE 2 OF 2
 Site No. BGC-3 Date 9/13/00 Time 3:00pm Vegetation GRASS
 Elevation 25' MSL Slope 25' Aspect _____ Geomorphic Surface MARINE TERRACE
 Parent Material(s) SILTY SAND & EOLIAN CAP Described by SMB/BED/RSE

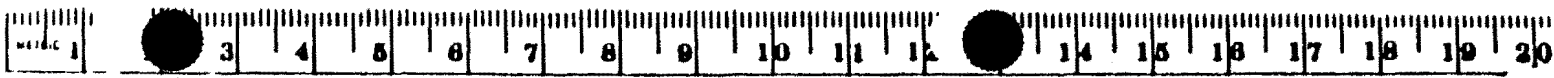
Depth (cm)	Horizon	Color		Structure	Gravel		Consistence			Texture	pH	Clay Films	Boundaries	Notes*
		moist / dry			%	Wet	Moist	Dry						
61-84	4Bwb1	2.5Y5/4 LT OLIVE BROWN		m vf gr sg f pl 1 m pr 2 c cpr 3 vc abk (sbk)	0 50 <10 75 10 >75 25	(so) (po) ss ps s p vs vp	lo vfr fr fi vfi eh	(lo) so sh h vh eh	S (LS) SiL SL Si SCL SiC L C CL SC		vl f pf 1 po 2 d br 3 co p cobr	a s (c) (w) g i d b		
84-87	5Bwb1	7.5YR 5/8 STRONG BROWN		m vf (gr) sg (f) pl 1 m pr 2 c cpr 3 vc abk sbk	0 50 <10 75 10 >75 25	(so) (po) ss ps s p vs vp	lo vfr fr fi vfi eh	(lo) so sh h vh eh	S (SiCL) LS SiL SL Si SCL SiC L C CL SC		vl f pf 1 po 2 d br 3 co p cobr	a (s) (c) w g i d b	POLES/ROOTS POSSIBLE BIOTURB. LATERALLY CONTINUOUS	
87-101	6Coxb1	5Y 4/3 OLIVE		m vf gr sg (f) pl 1 m pr 2 c cpr 3 vc abk (sbk)	0 50 <10 75 10 >75 25	(so) (po) ss ps s p vs vp	lo vfr fr fi vfi eh	(lo) so (sh) h vh eh	S (LS) SiL SL Si SCL SiC L C CL SC		vl f pf 1 po 2 d br 3 co p cobr	a s (c) (w) (g) i d b		
101+	Cu	5Y 4/4 OLIVE		m vf gr sg (f) pl 1 m pr 2 c cpr 3 vc abk sbk	0 50 <10 75 10 >75 25	(so) (po) ss ps s p vs vp	lo vfr fr fi vfi eh	(lo) so sh h vh eh	S (LS) SiL SL Si SCL SiC L C CL SC		vl f pf 1 po 2 d br 3 co p cobr	a s c w g i d b		
				m vf gr sg f pl 1 m pr 2 c cpr 3 vc abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo vfr fr fi vfi eh	lo so sh h vh eh	S SiCL LS SiL SL Si SCL SiC L C CL SC		vl f pf 1 po 2 d br 3 co p cobr	a s c w g i d b		
				m vf gr sg f pl 1 m pr 2 c cpr 3 vc abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo vfr fr fi vfi eh	lo so sh h vh eh	S SiCL LS SiL SL Si SCL SiC L C CL SC		vl f pf 1 po 2 d br 3 co p cobr	a s c w g i d b		
				m vf gr sg f pl 1 m pr 2 c cpr 3 vc abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo vfr fr fi vfi eh	lo so sh h vh eh	S SiCL LS SiL SL Si SCL SiC L C CL SC		vl f pf 1 po 2 d br 3 co p cobr	a s c w g i d b		

U.S.D.A. SOIL CLASSIFICATION SYSTEM



USDA	GRAVEL	SAND					SILT	CLAY
		Very Coarse	Coarse	Medium	Fine	Very Fine		





1 centimeter = 10 mm

HORIZON
Use A, E, B, C and subscripts,
or number 1, 2, 3 . . .

DEPTH INTERVAL
Inches, decimal feet or
centimeters from top to
bottom of horizon.

COLOR (Munsell Notation) is
described using HUE, VALUE
and CHROMA. For example, a
gray color, 10YR 5/1, has a
hue of 10YR, a value of 5 and
a chroma of 1.

Dominant color occupies the
greatest volume of the
horizon.

MOTTLING, spots of different
color, is described by color,
quantity, size, contrast and
shape.

Quantity
few (f) <2%
common (c) 2-20%
many (m) >20%

Size
fine (1) <5 mm
medium (2) 5-15 mm
coarse (3) >15 mm

Contrast
faint (f) difficult to see
distinct (d) readily seen
prominent (p) conspicuous

Shape
streaks, bands, spots etc

CONSISTENCE describes particle
cohesion and adhesion. **Strength**
is the resistance to crushing a
25 mm cube or median-size ped.

Moist Soil **Force**
loose (m)
very friable (mvfr) very slight
friable (mfr) slight
firm (mf) moderate
very firm (mvfi) strong
extremely firm(mefi) sq.between
hands

Dry Soil
loose (dl)
soft (ds) very slight
slightly hard (dsh) slight-mod
hard (dh) strong
very hard (dvh) sq. between
hands
extremely hard(deh) under foot

ROOTS vers. 11/89
Quantity
few (1) < 1%
common (2) 1-5%
many (3) > 5%

Size
very fine (vf) < 1 mm
fine (f) 1-2 mm
medium (m) 2-5 mm
coarse (co) > 5 mm

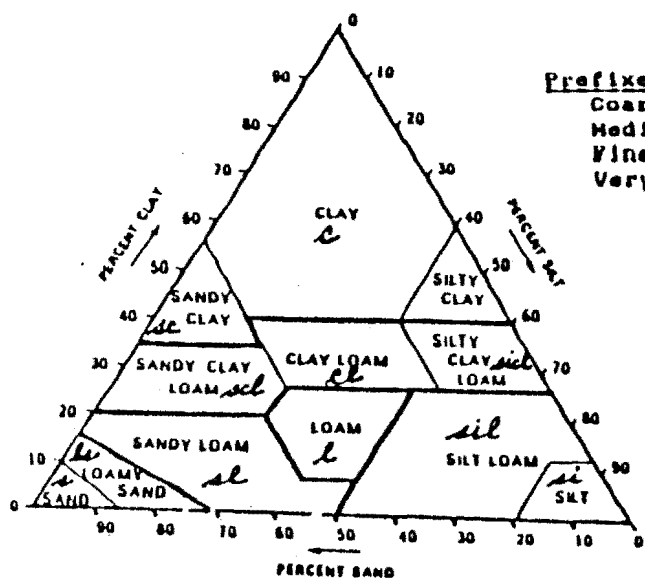
BOUNDARY is the transition
between horizons.

Distinctness
abrupt (a) < 25 mm
clear (c) 25-65 mm
gradual (g) 65-130 mm
diffuse (d) > 130 mm

Topography
smooth (s) nearly a plane
wavy (w) w/width > depth
irregular (i) w/depth > width
broken (b) discontinuous

Appendix IB2. Key to Soil Horizon Data Sheet Abbreviations

TEXTURE
USDA twelve divisions.



Prefixes for sand sizes
Coarse (co)
Medium
Fine (f)
Very fine (vf)

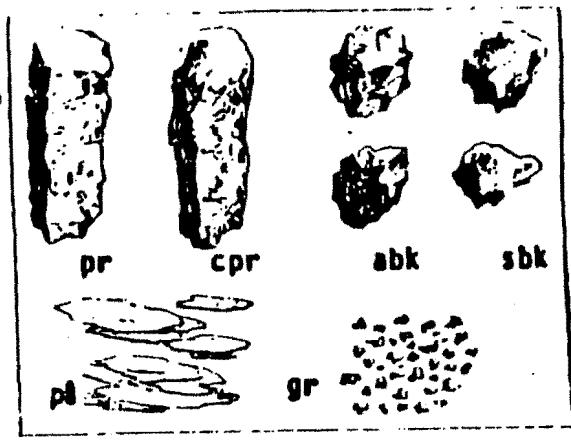
STRUCTURE describes units that
separate at surfaces of weakness.

Grade
structureless(0) no aggregation
weak (1) barely observable
moderate (2) distinct peds
strong (3) durable peds

Shape
platy (pl)
prismatic (pr)
-columnar (cpr)
blocky (bk)
-angular (abk)
-subangular (sbk)
granular (gr)
-crumb (cr)
single grain (sg)
massive (m)

Size	Granular, Crumb, Platy**	Angular, Sub-angular, Blocky	Prismatic, Columnar
very fine (vf)	<1 mm	<5 mm	<10 mm
fine (f)	1-2	5-10	10-20
medium (m)	2-5	10-20	20-50
coarse (c)	5-10	20-50	50-100
very coarse (vc)	>10	>50	>100

**For platy structure, use "thin" for fine and "thick" for coarse.



Texture triangle describing size distribution of particles less than 2 mm.



APPENDIX II

EXCERPTS FROM MINUTES OF MEETINGS OF THE BOARD OF DIRECTORS OF THE DEL NORTE COUNTY LOCAL HOSPITAL DISTRICT

(retyped verbatim, including typographical errors)

APRIL 21, 1964

Director Beam moved that the Hospital District request the County of Del Norte to install riprap near the annex as soon as the Army Engineers complete removal of the driftwood around the hospital. Seconded by Director Enos. Yes votes; three. (p. 3)

MAY 19, 1964

A preliminary estimation in the amount of \$1,267.36 for the rip-rap installed by the county was presented. The Administrator explained that more work was done after this estimation was received and that the bill will be more than was estimated. No action was taken. (pp. 2, 3)

JUNE 23, 1964

The Directors instructed the Administrator to write to the Department of Finance and state that the Directors consider the rip-rap work as repair to the sea wall as the Corps of Engineers informed the Hospital District that the removal of debris left a portion of the bank adjoining the ocean in a condition that required immediate attention, and that the Corps of Engineers thought that a retaining wall of rip-rap had to be installed at once, and ask that consideration be given for payment of this work out of the Emergency Flood Relief Law. (p. 2)

A letter, dated May 25, 1964, from Joe Creisler, Flood Control Coordinator, asked that the Directors undertake the control of driftwood on beach property under the control of the Hospital District on an annual basis in order to protect the hospital and hospital grounds. (pp. 2, 3)

The bill in the amount of \$1,648.92 from the Del Norte County Road Department for installing riprap at the hospital was presented and discussed. It was suggested that a meeting be arranged with the Board of Supervisors. (p. 3)

JULY 21, 1964

A letter, dated July 7, 1964, from Mr. James F. Trout, Senior Construction Analyst of the Department of Finance, stated that Emergency Flood Relief Law will not pay for the riprap at Seaside Hospital and suggested that Public Law 875 be investigated. The Administrator explained that Public Law 875 is for national disaster and there is a possibility that it will pay for riprap, however, the application should have been made within 90 days after the president declared this area disaster. It might be possible to have this clause waived for the Hospital

APPENDIX V



APPENDIX. SEISMIC SOURCE AREAS and PRELIMINARY SUMMARY OF EARTHQUAKE DATA IN HUMBOLDT COUNTY

(descriptions relative to the location of Eureka)

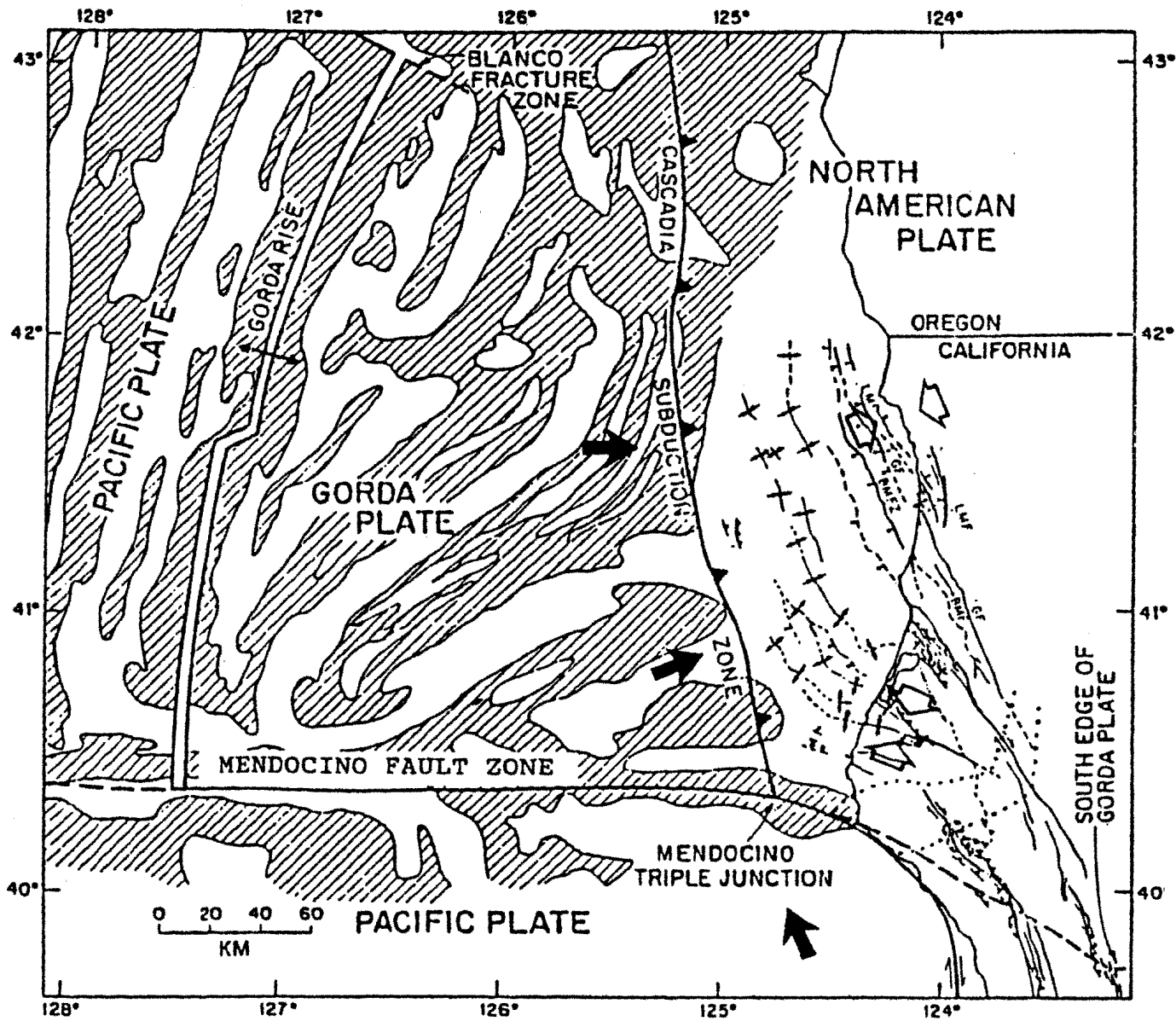
In brief, the main sources of potentially significant earthquake shaking include: 1) the Mendocino fault to the southwest; 2) numerous faults within the Gorda Plate, offshore to the southwest, west, and northwest; 3) the San Andreas fault to the south; 4) the Mad River fault zone, a series of northwest-trending thrust faults between Trinidad and Arcata; 5) the Little Salmon fault, a similar northwest-trending fault to the south and west; 6) numerous recently recognized faults in the Garberville area and elsewhere in southern Humboldt County; and last, 7) the Cascadia subduction zone (CSZ), which parallels the coast offshore from west of the site to British Columbia.

The following two figures show the location of faults and their relation to the regional tectonic setting. The major geologic feature of the region is the intersection of three lithospheric plates, the North American, Pacific, and Gorda plates, near Cape Mendocino. Overall directions of plate movements, relative to the North American plate, are shown in Figure 1, and suggest crustal convergence in the region. This tectonic setting results in the eastward subduction of the Gorda plate beneath North America (which creates the Cascadia subduction zone) and a certain degree of internal Gorda plate disintegration (therefore Gorda plate earthquakes), due to N-S compression of the plate (McPherson, 1989). In the vicinity north of Cape Mendocino, on-land expression of the Cascadia subduction zone is represented by northwest-trending thrust fault and fold belts, the Mad River and Little Salmon fault zones (Carver et al., 1982; WCC, 1980) (Figure 2). South of the Cape, transverse North American and Pacific plate motion results in the San Andreas fault system and related strike-slip faults. Paleoseismic evidence suggests several of these faults (the San Andreas, Little Salmon, CSZ) are capable of producing very large earthquakes (8.0 M or greater; Atwater, 1987; Heaton and Hartzell, 1987; Carver, 1987).



APPENDIX V FIGURE 1

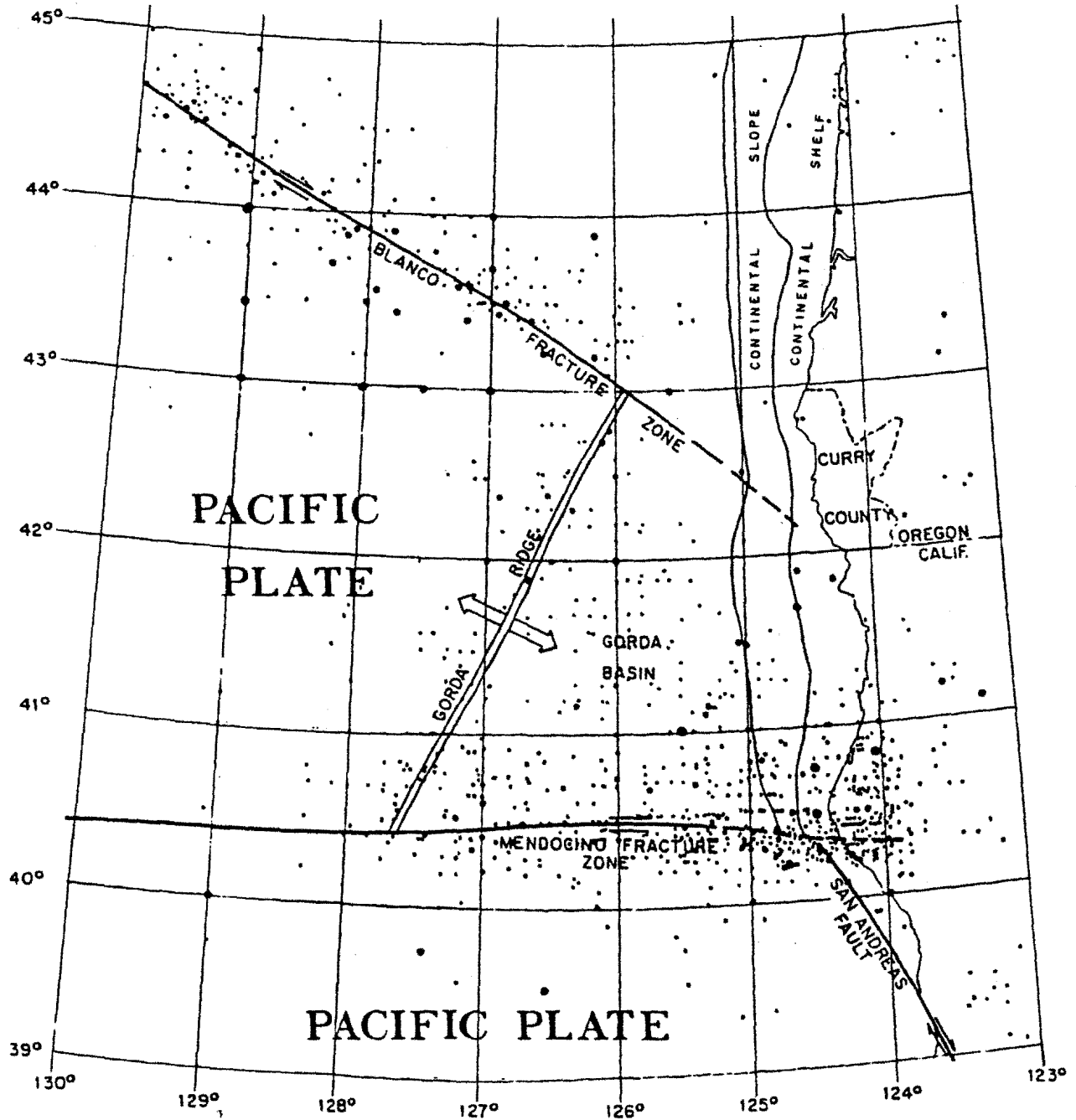
Tectonic map of northern coastal California (modified from Kelsey and Carver, 1988; magnetic anomalies [striped pattern on oceanic plates] and southern edge of Gorda plate from work by others). Solid arrows show plate motions relative to a fixed North American plate. Hollow arrows show the approximate direction of maximum compression.





Seismic Setting

APPENDIX V FIGURE 3



- LEGEND**
- SEA FLOOR RIDGE (spreading zone)
 - MAJOR STRIKE-SLIP FAULT (showing relative movement)
 - DIRECTION OF SEA FLOOR SPREADING
 - EARTHQUAKE EPICENTER 1853 to 1973

(Adapted from Couch and others, 1975)

The offshore islet has supported one pair of nesting Black Oystercatchers, and provides roost habitat for cormorants and gulls. No other nesting seabirds occur nearby or onshore (Carter et al. 1992, pers. obs.). At low tide, harbor seals haul out on an isolated reef near the north end of the site, and they some may pup there from March to May.

Potential Impacts and Recommendations

While there may be no direct access provided from the proposed resort to the beach and intertidal areas, it is expected that customers will use existing access points and that visitor use on the shoreline will increase by some amount. Degradation of intertidal habitat from foot traffic and 'exploring tidepools' is a well documented phenomenon all along the west coast. At this site, however, diversity is low and there are essentially no species present which would be subject to crushing. The algae covered rocks are slippery and make the area somewhat hazardous for walking. While there is no basis to keep visitors from the rocky intertidal (at >80 m from Harbor Seals, see below), it is advisable that some information on wave, tidal flooding, and walking hazards be given to customers.

The offshore islet used by Black Oystercatchers and roosting seabirds has an adequate water buffer and is not subject to disturbance. There is a small tidal channel water buffer between shore and the main Harbor Seal haul-out site, but these seals are sensitive to human presence and would likely be displaced by approaching people. It is against federal law to disturb marine mammals (Marine Mammal Protection Act, 1972). At the same time, the seals can be easily viewed from a distance, and are an asset to the wildlife experience of potential resort customers and locals alike. We recommend that information on the seals be provided to customers and that an advisory sign be posted to keep people away from the animals, particularly from April to June (contact the NorthCoast Marine Mammal Center or Crescent Coastal Research for information on the seals and options for signage).

References

- Carter, H.R., G.J. McChesney, D.L. Jaques, C.S. Strong, M.W. Parker, J.E. Takekawa, D.L. Jory, and D.L. Whitworth. 1992. Breeding populations of seabirds in California, 1989-1991. Unpubl. draft final report, U.S. Fish and Wildlife Service, Northern Prairie Wildlife Research Center, Dixon, CA (USGS, BRD). 818PP.

- ① CONTROL STORMWATER DISCHARGE FROM ROOFS (METAL)
- ② CONTROL & TREAT STORMWATER RUNOFF FROM PAVED PARKING AREAS

DESIGN CRITERIA: TREAT / DETAIN 1" STORMWATER ON SITE OVER 24 HRS

<u>AREAS :</u>	<u>PHASE I</u>	<u>PHASE II</u>
ROOFS	17,500 FT ²	6800 FT ²
PAVING	41,000 FT ²	11,000 FT ²

ROOFS:

$$V = (17500 + 6800) \frac{1}{2} = 2025 \text{ FT}^3$$

"INFILTRATOR MAXIMIZER CHAMBER SYSTEM"

$$V = \frac{2.23 \text{ FT}^3 \text{ STORAGE}}{\text{FT}^2 \text{ BED AREA}}$$

$$A = \frac{2025}{2.23} = 910 \text{ FT}^2 \text{ OF BED, APPROX } 30' \times 30'$$

USE AREA WEST OF PHASE I NORTH WING

PAVED AREAS:

$$V = (41,000 + 11,000) \frac{1}{2} = 4330 \text{ FT}^3$$

IF INFILTRATOR CHAMBERS ARE ACCEPTABLE

$$A = \frac{4330}{2.23} = 1940 \text{ FT}^2, \quad 45' \times 45'$$

INFILTRATOR CHAMBER SYS. IS PREFERABLE, HOWEVER, IF NOT ACCEPTABLE:

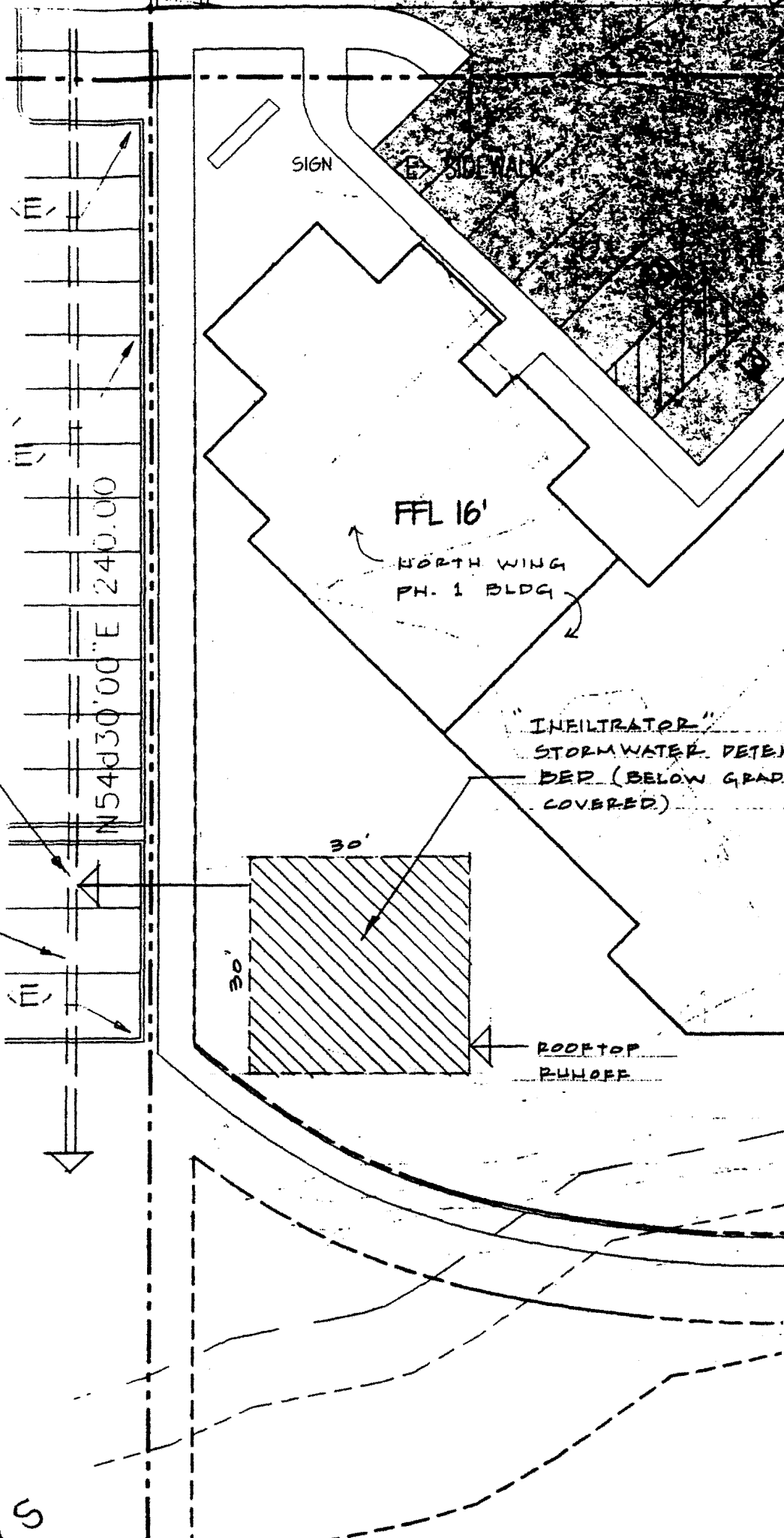
POND:

$$\frac{4330}{100^2} = 0.43' \approx 5" \text{ DEEP}$$

5" x 100' x 100' STORMWATER RETENTION POND



SCALE: 1" = 20'



4 of 5

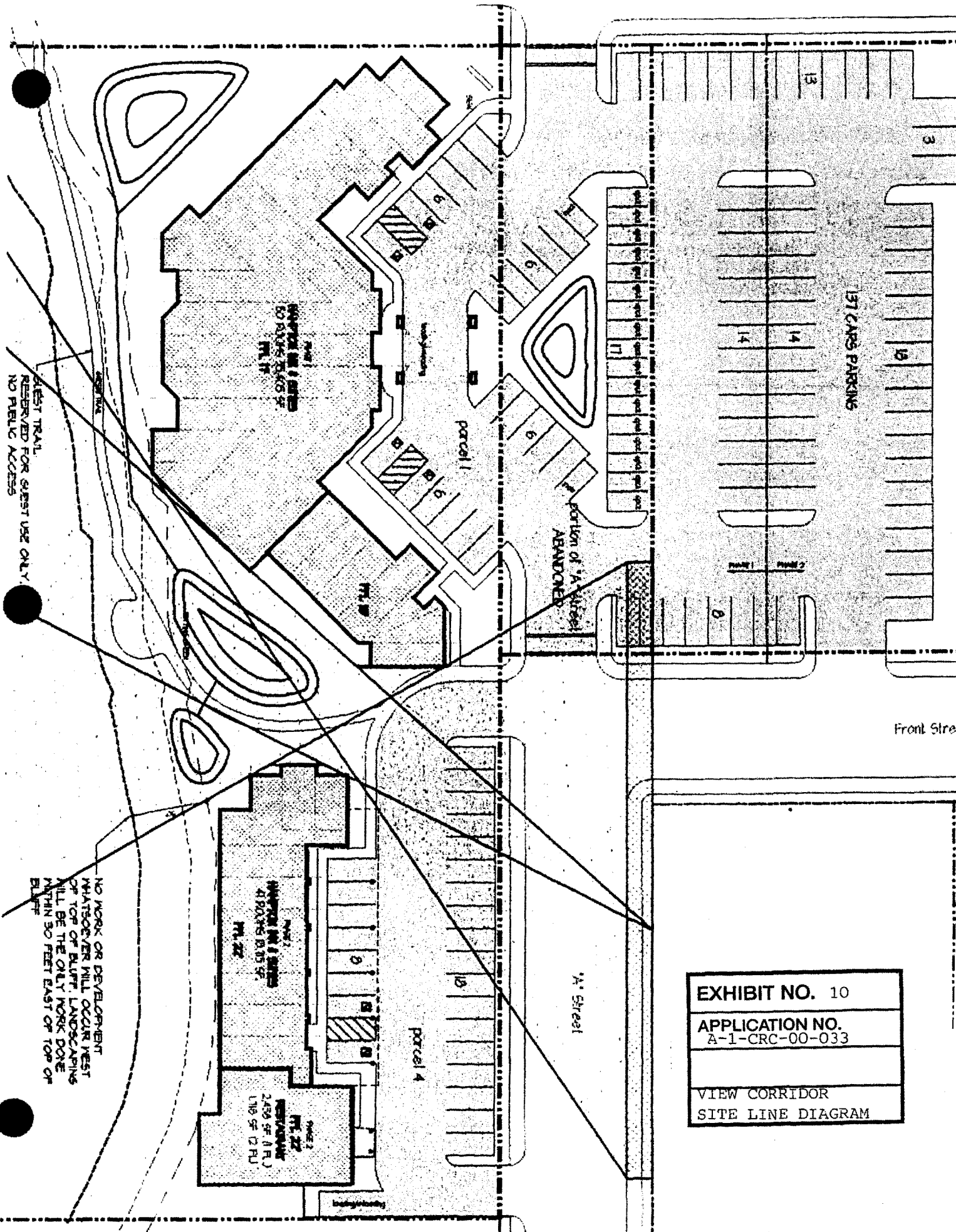


EXHIBIT NO. 10
APPLICATION NO. A-1-CRC-00-033
VIEW CORRIDOR SITE LINE DIAGRAM

- VI-c Structure plans must show the minimum elevation of the structure at or above 17 feet above sea level.
- VIII-a Detailed drainage plans showing surface water flowing into stormwater drain inlets or other appropriate disposal techniques must be approved prior to issuance of the building permit.
- XI-a The project shall include installation of appropriate acoustical screening on exterior mounted restaurant exhaust and H/VAC systems to reduce noise to the 65 decibel maximum.
- XI-b All construction equipment with the potential to generate noise offsite greater than 70 dB shall be equipped with mufflers in good working order. Construction hours will be limited to between 7:00 A.M. and 7:00 P.M. except during emergencies.
- XIII-a Dry water pipes and standpipes shall be constructed to the satisfaction of the Fire Chief, to allow water to be pumped from existing City hydrants to the bluff edge to allow Fire Department personnel to fight beach fires.
- XV-a Incorporate the two stop signs recommended in the traffic study into the project. Consider redesign of adjacent intersections for improved traffic flow as part of the final project design.

1963 to 2000, and found that, within the limits of their mapping accuracy (estimated at about 5 feet), the position of the top-of-bluff remained constant over that time interval. The 1969, 1989, and 2000 aerial photographs have been made available to me and, coupled with my site visit in March 2001, lead me to concur with this assessment.

The absence of appreciable bluff retreat at the site is probably largely due to the presence of the existing revetment. Very little is known about the structure of this revetment, which is now largely covered with fill and vegetation. It is unlikely that it is an engineered structure, keyed into bedrock. That it has performed as well as it has for the past 40 years is remarkable. It's continued performance is difficult to assure, however.

Because new development cannot in any way require a shoreline protective device, it is necessary to find an appropriate setback distance for the proposed development without taking the revetment into account. Such an analysis will assure stability, consistent with the LCP, even if the revetment were to fail at some time in the future. The task, then, is one of estimating an erosion rate appropriate to the site from geologically similar sites that are not protected by shoreline structures. At the project site, dense sandstone of the Franciscan formation is overlain by more easily erodible Saint George Formation and marine terrace deposits. Although erosion of the Franciscan sandstone may be very slow, and marine erosion of the terrace deposits may be greatly produced due to the protective nature of the bedrock at the base of the bluff, surficial erosion will still cause the marine terrace deposits to recede from the bluff face.

The Busch report cites literature reports of nearby measured erosion rates varying from 4 to 25 inches per year, but concludes that none of these rates are appropriate to the subject site because they consist solely of marine terrace or Saint George formation. Sites consisting solely of Franciscan bedrock have reported erosion rates varying from 0 to 4 inches per year. One rate of 7 inches per year was reported, however, from a site where Franciscan sandstone makes up the lower 15 feet of a coastal bluff, and overlying marine terraces are eroding through slope failures. This site does seem comparable to the subject site, although the quoted erosion rate may reflect accelerated erosion due to ongoing slope failure, rather than a long-term average. Erosion rates for marine terrace deposits have been estimated at 4 to 6 inches per year near the Oregon-California border. The Busch report sites other sites nearby that they have shown no erosion over the past 10 years, but as acknowledged in the report, this length of time is too short to establish a meaningful long-term erosion rate.

The Busch report concludes from these data that, in the absence of the revetment, the base of the bluff would still not erode (an erosion rate of 0 inches per year), due to the resistant nature of the Franciscan bedrock, and that the top of the bluff would erode at a rate of three inches per year.

2910

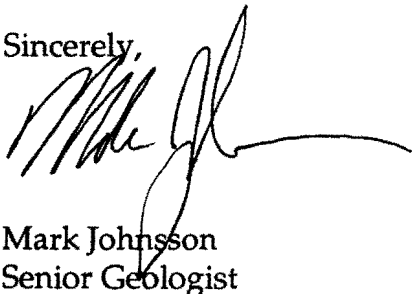
portions of the site to be 8 to 14 feet. It is my understanding that the applicant has agreed to found the entire structure on end-bearing piles set a minimum of two feet into unweathered bedrock. Such a foundation system would not be damaged by liquefaction of the soils overlying the bedrock, effectively mitigating the liquefaction hazard with respect to the principal structure. Since this foundation system is not a specific recommendation of the geotechnical report, I recommend that a special condition be imposed on the Coastal Development Permit requiring its use.

The third area of concern in my memo was the tsunami hazard. The Busch report notes that the 100-year flood zone, per the U.S. Army Corp of Engineers' 1979 study, lies at an elevation of 13 feet; and the 500 year flood zone is at an elevation of 16.4 feet. Given that the finished grade of the first floor of the proposed structure is to be at an elevation of 17 feet, the report concludes that the risk from a distant-source tsunami is negligible. Nevertheless, appropriate warning signs are recommended, and I concur. Further, I recommend that the applicant be asked to work with the City of Crescent City to ensure that visitors are aware of any tsunami warning systems that are in place.

If these recommendations are adopted, it is my opinion that the proposed development will be safe from geologic hazards as required by the LCP.

I hope that this review and recommendations is helpful. Please do not hesitate to contact me if you have any further questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Mark Johnson', with a long horizontal flourish extending to the right.

Mark Johnson
Senior Geologist

Mr. Bob Swanson

- 2 -

September 15, 1999

If you have any questions or comments, or would like to schedule a meeting to discuss this site, please call me at (707) 576-2670.

Sincerely,



Roy O'Connor
Associate Engineering Geologist

RRO:tab/rroos812.doc

cc: Mr. Leon Perreault, Del Norte County Health Department

Mr. Frans Lowman, SHN Consulting Engineers & Geologists, Inc., 812 W. Wabash Avenue, Eureka, CA 95501-1238

Ms. Debbie Cheung, SWRCB, UST Cleanup Fund

Mr. David M. Wells, City of Crescent City, 377 J Street, Crescent City, CA 95531

Mr. Xiao Jin Yuan, 2467 41st Avenue, San Francisco, CA 94116

82

California Environmental Protection Agency

 Recycled Paper

6 of 10

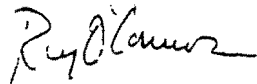
Mr. Xiao Jin Yuan

- 2 -

May 5, 1999

If you have any questions or comments, or would like to schedule a meeting to discuss this site, please call me at (707) 576-2670.

Sincerely,



Roy O'Connor
Associate Engineering Geologist

RRO:tab/roos539.doc

Enclosure: Copy of March 30, 1999 letter B

cc: Mr. Leon Perreault, Del Norte County Health Department

Mr. Frans Lowman, SHN Consulting Engineers & Geologists, Inc., 812 W. Wabash Avenue, Eureka, CA 95501-2138

Ms. Debbie Cheung, State Water Resources Control Board, Underground Storage Tank Cleanup Fund

Mr. David M. Wells, City of Crescent City, 377 J Street, Crescent City, CA 95531

Mr. Bob Swanson, Del Norte Healthcare District, P.O. Box 2034, Crescent City, CA 95531

84

California Environmental Protection Agency



Recycled Paper

8410

Mr. Bob Swanson

- 2 -

October 5, 1999

cc: Mr. Leon Perreault, Del Norte County Health Department

Mr. Frans Lowman, SHN Consulting Engineers & Geologists, Inc., 812 W. Wabash
Avenue, Eureka, CA 95501-1238

Ms. Debbie Cheung, SWRCB, UST Cleanup Fund

Mr. David M. Wells, City of Crescent City, 377 J Street, Crescent City, CA 95531

Mr. Xiao Jin Yuan, 2467 41st Avenue, San Francisco, CA 94116

APRIL 23, 2001

RECEIVED
APR 24 2001

DIANE MUTCHIE
CITY OF CRESCENT CITY
377 J ST.
CRESCENT CITY, CAL.

CALIFORNIA
COASTAL COMMISSION

RE: REDWOOD OCEAN RESORT REVISED AND AMENDED PROJECT
DESCRIPTION

DEAR DIANE,


I WOULD LIKE TO COMMENT ON THE REVISED AND AMENDED
PROJECT DESCRIPTION. MR. YUAN HAS MADE MANY CONCESSIONS TO
THE COASTAL COMMISSION AND THE CITY.

THE LAST REQUIREMENT, THAT AS I UNDERSTAND IS A BICYCLE
ROUTE, PROPOSED BY THE CITY. THIS WOULD SEEM TO IMPACT
HEALTH AND SAFETY FOR THE PEOPLE USING SUCH FACILITIES. WITH
THE LOCAL ADOLESCENT SKATEBOARDERS AND BICYCLISTS, IT COULD
GET OUT OF CONTROL. RULES COULD APPLY TO CURB SUCH
ACTIVITIES BUT ENFORCEMENT AND COMPLIANCE WOULD BE
DIFFICULT.

WITH ALL THE OTHER REQUIREMENTS PUT ON THIS PROJECT,
THIS SEEMS A POOR CHOICE AND A LIABILITY.

I AM SURPRISED THAT MR. YUAN DOES NOT LOOK FOR A
LOCATION THAT IS MORE USER FRIENDLY, IN ANOTHER CITY AND
STATE.

SINCERELY,



SKIP NOLAN
323 WENDELL ST.
CRESCENT CITY, CA

2 of 12


California Coastal Commission
Project No. A-1-CRC-00-33
October 17, 2000
Page Two


As you know, our region has experienced devastating economic hardships in the last thirty years, due to the reduction of resources in the timber and fishing industries. This proposed development not only represents a significant milestone in our area's economic recovery, but also provides the funds necessary for our District to continue serving the health needs of people in our community that can least afford it.

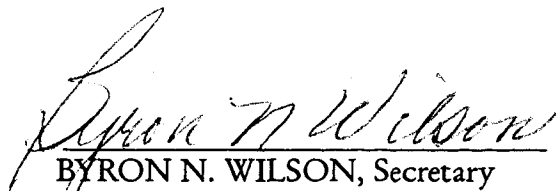
We are pleased to say that the community, our Board of Directors, the City of Crescent City, and the developer have all agreed that the property upon which the proposed project is planned should not only recognize, but enhance the unique characteristics and beauty of the location.

We are confident that the City of Crescent City and the developer will cooperate and meet the criteria established by the California Coastal Commission for this project. We also stand ready to answer and provide any further information the California Coastal Commission may need.

Very truly yours,


CLARKE MOORE, Chairman
Del Norte Healthcare District


TERRENCE MC NAMARA,
Vice-Chairman & Treasurer


BYRON N. WILSON, Secretary


DWAYNE C. REICHLIN, Director


JOHN D. ALEXANDER, Director



**COUNTY OF DEL NORTE
BOARD OF SUPERVISORS**

**981 "H" Street, Suite 200
Crescent City, California 95531**

Telephone (707) 464-7204
Fax (707) 464-1165

September 22, 2000

RECEIVED
OCT 03 2000

CALIFORNIA
COASTAL COMMISSION

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

RE: PERMIT NUMBER: A-1-CRC-00-033

Dear Commission Members:

The Del Norte County Board of Supervisors wishes to go on record in support of the new proposed hotel development on A Street in Crescent City.

This project offers our community numerous benefits, including new decent wage paying jobs, increasing money spent in the community from tourists and increasing access to healthcare.

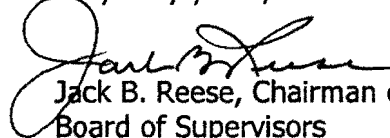
As you may be aware, the unemployment rate in Del Norte County is almost twice the state average. There is a strong need for above minimum wage jobs in our community. The project applicants have pledged to create such jobs.

Del Norte County has numerous motels. What we lack is an upscale hotel with world-class ocean views. This project will provide that. The rates being charged by the new hotel, we believe, will draw a customer who does not normally stop and stay in our community. That is, a visitor who is willing to pay more money for their lodging experience because of a lodging's vicinity and amenities. That customer is currently driving through our community and staying in any one of a number of Oregon beach communities. Having that lodging customer stay in our community will bring in additional dollars to local retailers and restaurants.

The property where this project will be situated is owned by the Del Norte Health Care District. The proceeds from the sale of the property, which has sat vacant for more than a decade, will go to the district and be used to support increased healthcare access to the local community.

The Del Norte County Board of Supervisor wishes to thank the Coastal Commission for its efforts to make this project a reality for our community.

Very truly yours,


Jack B. Reese, Chairman of the
Board of Supervisors

BOS/McK-B/klw

6 9 12

Hotel Resident

People will have to pay big Money to Stay at this Hotel. They will expect to have a Good Ocean View, Not a View of Hiking Public and their Dogs, it would be Very Unfair to Subject Hotel Guest's to this, and also Public using the Lateral Walkway at Night would Make 'Guest's very uneasy.

Bluff Top Lateral Public Walkway:

We do not believe having access for the Public to use the Lateral Walkway would be Safe - Fair - Controllable. although I'm sure Sign would be required to Warn of Bluff Hazard. People 'Do Not' pay attention to Signs. They also probably, would use Bluff on the Private Property South of Hotel Property.

[Example: Signs are posted at Gate to the Breakwater, but everyday Dozens of People can be seen going out to the end of Breakwater even during Storms.

The Public tends to like to use Public Beaches to walk their 'Dogs' but No One brings Container (Pooper Scooper) to Pick Up after them.

With a 'Good Public Access' at 2nd. Street side of Project they can use the Beach for this Purpose

Control of Lateral Walkway:

Again I'm sure Signs regarding Bluff Hazards - Private Property - Animal Control would be Posted, but Who will Enforce them.

'I Do Not' think the Public should have Access to a 'Lateral Walkway'!!

Clarence Bowman

Clarence Bowman 215 South 'C' Street, Crescent City, California 95531

8 of 12

Ted Scott

148 3rd Street
Crescent City, CA, 95531
USA

Home Phone 707- 464-6025
Email tedscott@gte.net

RECEIVED
SEP 21 2000

September 19, 2000

Mr. Jim Baskin
Coastal Commission Engineer
California Coastal Commission
North Coast District Office
710 E Street, Suite 200
Crescent City, CA 95531

CALIFORNIA
COASTAL COMMISSION

Dear Mr. Baskin and Honorable Coastal Commissioners,

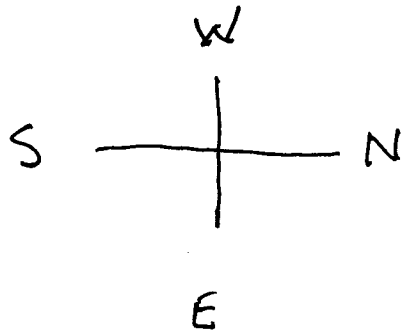
This letter is in regards to the Hotel/Resort that is to be built at the old Seaside Hospital site in Crescent City, CA. I have read your report and I have concerns about having the developer turn the western edge of the property into public access. As you know, Seaside Hospital stood for 50 or 60 years there, and there was no need for public access. I have concerns that the developer is giving up the most precious part of his property that could end up giving him problems later on. As it is now, I have a birdseye view out my kitchen window and backyard to see how the public is using this land now. It is upsetting to me to watch people walk their dogs all over and including the western edge leaving feces all over. Not only have I witnessed this over and over, but also people leaving beer bottles and trash behind.

I do not think that it is at all fair for the property owner to deal with nonpaying citizens to be wandering around near his property at night. Especially when this developer has invested so much of his time and money, and to have to give the most precious part of his property up to do business in Crescent City. I also have great concerns that the public will abuse this western edge as they do now, by climbing up and down it which is not safe. The property owner in no way should be held liable for someone getting injured.

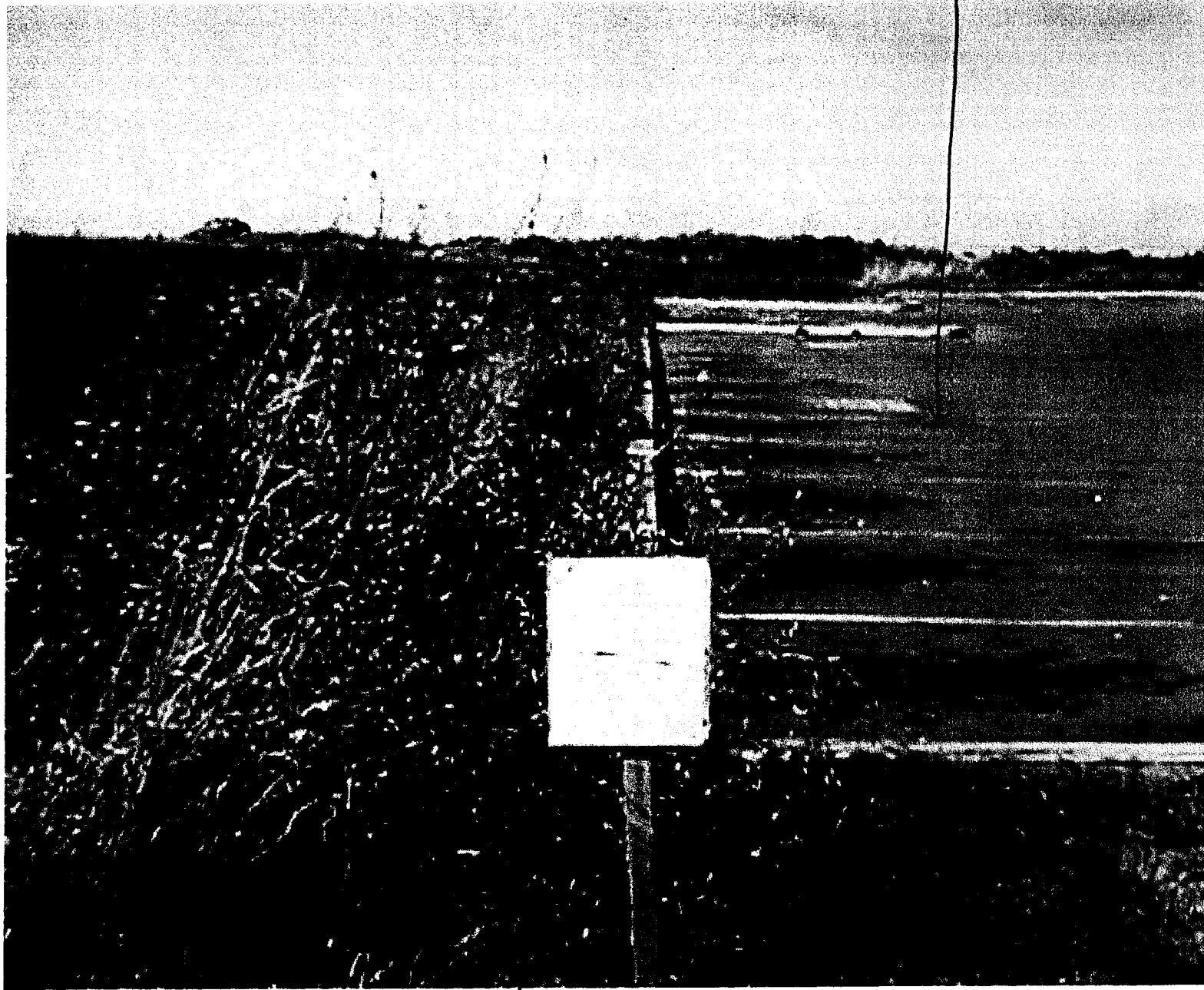
I have also spoken with the neighbors who live at the south end of the property. They are very concerned about the public wandering onto their backyards. This has become a great concern to them. We are not against this project. We have an alternative: We believe all that is needed is a legal width sidewalk from A Street between the Del Norte Community Health Center's Parking lot, and the Hotel property which would be east to west adjacent to the Hotel/Resort. One has just as much enjoyment and satisfaction, as you can see all the beach and the lighthouse from this point, and it would provide easier access to the public. This sidewalk would allow the public to be able to walk right on to the beach and not interfere with the business of the Resort. The project owner would not have the public wander all in front of his Hotel. I strongly believe that this is the fair alternative and would work much better for the public as the western edge is somewhat uphill, thus keeping the public away from the bank and the temptation to take themselves and their children down an unsafe incline.

I also would like to point out that Second Street was abandoned. The Health Center put a large parking lot in and they were never required to provide public access. What the public has been doing even during business hours is driving into this parking area and utilizing the spaces that are meant for customers. They park their vehicles and then walk down to the beach. The sidewalk I mentioned provides the walking path that they need.

10 of 12



Health Center's
PARKING Lot



This is where the sidewalk would
go to Beach Right off A & ~~W~~ St
CRESCENT CITY CA,
12 of 12