Staff Report *to* the Planning Commission

Application Number: **04-0044**

Applicant: Betty Cost
Owner: Mark DeMattei
APN: 043-161-18, -41,-44

Agenda Date: January 26,2004
Agenda Item #: 12.
Time: After 9:00 a.m.

Project Description: Proposal to construct a 4,281 square foot Single Family Dwelling, conduct about 1,330 cubic yards of grading, construct a driveway with fence and entry-gate, and install about 1,170 cubic yards of revetment for a shoreline protection structure.

Location: Project located a the southern end of Beach Drive, about 1 mile southeast of the intersection of Aptos Beach Drive and Beach Drive in Aptos.

Supervisoral District: 2nd District (District Supervisor: Ellen Pirie)

Permits Required: Requires a Coastal Development Permit; a Variance to reduce the required 30 foot front yard setback to about 10 feet and the required 30 foot sideyard setbacks to about 5 feet, and increase the two story maximum in the Urban area to 3 stories; a Residential Development Permit for a fence between 3' and 6' tall in the front yard setback Preliminary Grading Approval for approximately 1,330 cubic yards of excavation and 1,170 cubic yards of revetment; a Geologic Report Review and a Soils Report Review.

Staff Recommendation:

- Approval of Application 04-0044, based on the attached findings and conditions.
- Certification of the Mitigated Negative Declaration in accordance with the California Environmental Quality Act.

Exhibits

A.	Project plans	E.	Comments from Reviewing Agencies
B.	Findings	F.	Public Comment
C.	Conditions		
D.	Mitigated Negative Declaration and Initial Study		

Parcel Information

Parcel Size:	About 5.08 acres (all three parcel numbers are one legal lot)
Existing Land Use - Parcel:	Open beach, coastal bluff, private road (Beach Drive)
Existing Land Use - Surrounding:	Open beach to the south and west, single-family dwellings to the north and east (above the coastal bluff).
Project Access:	Beach Drive (a private right-of-way).
Planning Area:	Aptos
Land Use Designation:	O-R, R-UL (Existing Parks and Recreation, Urban Low Residential)
Zone District:	PR, RB (Parks and Recreation, Ocean Beach Residential)
Coastal Zone:	✓ Inside ___ Outside
Appealable to Calif. Coastal Comm.	✓ Yes ___ No

Environmental Information

Geologic Hazards:	FEMA Flood Zone V (Wave run-up hazard zone), landslide potential at the base of coastal bluff
Soils:	Beach sand (soils map index number 109) and Purisima Foundation Sands
Fire Hazard:	Not a mapped constraint
Slopes:	2% to over 70% (base of coastal bluff)
Env. Sen. Habitat:	Not mappedho physical evidence on site
Grading:	About 1,330 cubic yards for house, 1,700 cubic yards for revetment
Tree Removal:	No trees proposed to be removed
Scenic:	Designated Coastal Scenic Resource Area
Drainage:	Existing drainage to beach
Traffic:	Minor increase in traffic from one single-family dwelling
Roads:	Existing roads adequate
Parks:	About 4.89 acres to be offered as dedication to State for public use
Archeology:	Not mappedho physical evidence on site

Services Information

Urban/Rural Services Line:	✓ Inside ___ Outside
Water Supply:	Soquel Creek Water District
Sewage Disposal:	Santa Cruz County Sanitation District
Fire District:	Aptos/La Selva Fire Protection District
Drainage District:	Zone *6*

Background

A previous application for a Coastal Development Permit on site (99-0841) proposed constructing a single-family dwelling on the open beach, which resulted in an investigation of prescriptive pedestnan access rights by the California Coastal Commission. To address the

issues raised by the investigation, the previous owner and the California Coastal Commission entered into an agreement whereby development on the property would be limited to a 60' by 140' envelope immediately adjacent to Beach Drive with the remainder of the property remaining undeveloped and offered by the property owner as a dedication to the State for open space and recreational uses.

A lot legality determination was completed under application 02-0169 and an Unconditional Certificateof Compliance issued on July 31,2003 for APN's 043-161-18,043-161-41, and 043-161-44 as one legal lot of record.

On January 28,2004 the County Planning Department accepted this application to construct one single-family dwelling at the toe of the bluff at the end of Beach Drive, requiring a Coastal Development Permit and a Variance to allow a three-story single-family dwelling within the Urban Services Line. The application required Environmental Review as more than 1,000 cubic yards of grading are proposed within a designated scenic.resource area (about 2,500 cubic yards including 1,170 cubic yards of revetment). The Environmental Coordinator issued a Negative Declaration with Mitigations on September 22,2004 to comply with the California Environmental Quality Act (CEQA) (Exhibit D).

Project Setting

The subject property is located on the beach and coastal bluff at the end of Beach Drive, in an area known as Hidden Beach. The proposed home site is located immediately adjacent to the end of Beach Drive at the base of the coastal bluff, about 100 feet southeast of the existing house at 641 Beach Drive. The building envelope established through an agreement with the California Coastal Commission confines the development to the area adjacent to existing residential zoned lots on Beach Drive.

Two vacant lots have discretionary approval for bunker style houses in the vicinity of the project site on each side of the existing house at 641 Beach Drive, located three parcels northwest of the project site (see Exhibit D, Attachment 3 for locations).

The subject property contains no known habitats for endangered or threatened species. The vegetation on the bluff face consists of shrubs, one Cypress tree, and ice plant.

Zoning Consistency

With the exception of a small portion within the Beach Drive right-of-way, the subject parcel is zoned PR (Existing Parks and Recreation) with a General Plan/Local Coastal Program Land Use designation of Existing Parks and Recreation (O-R)(Exhibit D, Attachment 3 and 4). One single-family dwelling is permitted within the PR zone district on a legal lot of record as long as the site is not a listed as a priority acquisition site by the County General Plan/LCP and the purposes of the PR zone district are maintained,

The proposed development is consistent with the purposes of the PR zone district as the single-family dwelling will be located adjacent to existing and proposed development along Beach Drive, thus preserving the open beach and coastal bluff for public use. To obtain the maximum public

benefit and comply with General Plan policies to minimize grading and minimize visual impacts to the public viewshed, variances to the front and northwestern side yard setback have been requested, as shown in the following table:

	PR Zone District Standard	Proposed
Front yard setback	30'	10'*
Side yard setbacks	30'	4'* and about 560'
Rear yard setback	30'	50'
Maximum heioht	28'	28'

*Variances to the side and front yard setback have been applied for as part of this application

General Plan/Local Coastal Program Consistency

The General Plan Designation for this parcel is O-R (Existing Parks, Recreation, and Open Space). This land use designation delineates areas appropriate for recreation and/or open space uses. The PR zone district is consistent with this General Plan land use designation. The proposed single-family dwelling promotes the objectives of the O-R designation by limiting development to a small portion of the site adjacent to existing and proposed development on Beach Drive while retaining the rest of the site as open space for public use.

General Plan/Local Coastal Program policies regarding Geologic Hazards, Grading, and Visual Compatibility are addressed below.

Geologic Hazards

General Plan policy 6.2.10 requires all development to be sited and designed to avoid or minimize hazards as determined by geologic or engineering investigations. Due *to* the location of the parcel on an open beach at the toe of a coastal bluff, potential coastal flooding and landslide hazards cannot be avoided and therefore must be mitigated. General Plan policy 6.2.15 allows for new development on existing lots of record in areas subject to storm wave inundation or coastal bluff erosion where a technical report demonstrates that potential hazards can be mitigated over the 100-year lifetime of the structure. Mitigations can include, but are not limited to, building setbacks, elevation of the structure, friction pier or deep caisson foundation; and where a deed restriction indicating the potential hazards on the site and level of prior investigation conducted is recorded on the property deed with the County Recorder. If properly constructed and maintained, the project design is expected to provide protection from landslide hazards and flooding during 100-year storm events within the 100-year life span of the structure.

General Plan policy 6.2.16 for Structural Shoreline Protection Measures states that these structures shall be limited to those which protect existing structures from a significant threat, vacant lots which through lack of protection threaten adjacent developed lots, public works, public beaches or coastal dependent uses. This policy further states that any application for shoreline protection measures include a thorough analysis of all reasonable alternatives, and to permit structural protection measures only if nonstructural measures are infeasible from an engineering standpoint or not economically viable. The project is not specifically designed to stop coastal erosion processes.

Nevertheless, the proposed structure must be constructed flush with the bluff as **any** exposed rear walls could not be feasibly designed to withstand the impact of a catastrophic landslide event. Thus, the rear walls must be designed as retaining walls and anchored into the bluff to prevent landslide impacts from displacing the structures. A consequence, but not primary goal, of this design is that the dwellings provide some stability to the base of the bluff. On the other hand, the design allows for the continued failure of the majority of the bluff face. While the proposed building design incorporates landslide mitigation, the dwelling itself is not a coastal protection structure. The proposed revetment to protect the driveway and the dwelling will require a Coastal Development Permit from the California Coastal Commission, and is not a part of the current coastal development permit application.

Landslide Hazards

Due to the location **of** the proposed dwelling at the base of a coastal bluff, the structure will be vulnerable to damage or destruction from landslides and slope failure. Consequently. Engineering Geologic and Geotechnical Reports have been prepared addressing geologic hazards, site conditions, and hazard mitigations for the proposed dwelling (excerpts of conclusions and recommendations in Exhibit D, Attachments 6 and 7). The project soils engineer and geologist recommend constructing the dwelling with a reinforced concrete structure designed to withstand the impact of any expected landslides, utilizing a "bunker" style design with a flat roof constructed of reinforced concrete and the sides of the structure designed as retaining walls to prevent damage by landslide flows along the side yards. The structure will be built flush with the face of the slope to minimize impacts to the rear of the dwelling. Finally, the foundation is designed to withstand slope failure and to mitigate for unconsolidated soils. As recommended by the project geologist and soils engineer, deck areas will be covered by an overhang of at least *3* feet to provide refuge in the event of a landside.

Elevating the dwelling above the landslide level is not feasible from an engineering standpoint due to the size of the piers required to withstand the increased landslide forces and velocities. Moreover, this design would result in a substantial increase in height, increasing visibility from the beach and compromising General Plan policies for protecting the public viewshed. The project will utilize deep piers to provide a stable foundation where unsuitable soils are present. This type of foundation is common in areas subject to liquefaction, landslides, sandy soils or soils with low bearing capacity. Thus, this type of foundation is not an exclusive to the coastal location.

Coastal Flood Hazards

The project site is located within the FEMA Flood Zone-V, an 100-year coastal flood hazard zone (Exhibit D, Attachment 9) designating areas subject to inundation resulting from run-up from waves and storm surges. FEMA regulations and the County Geologic Hazards ordinance (Chapter 16.10) require flood elevation of all new residential structures within 100-year flood zones. FEMA determined the expected 100-year wave impact height to be 21 feet above mean sea level (M.S.L.). The lowest habitable floor of the proposed dwelling is elevated more than one foot above 21 feet M.S.L. to prevent the habitable portions of the dwelling 6-om flooding due to a 100-year storm surge. The garage doors and non-load bearing walls must function as "break-away" walls as required by the FEMA regulations for development in the V-Zone and in Chapter 16.10 of the County Code.

The dwelling at 641 Beach Drive was the first structure approved incorporating this design (approved in 1993 as permit 91-0506), and dwellings of a similar design have been approved by your commission on Beach Drive, notably proposed three-story homes in the vicinity approved in April 2003 as permit 00-0351 and in April 2004 as permit 99-0354.

Grading and **Erosion Control**

General Plan/LCP policy 8.2.2 requires new development to be sited and designed to minimize grading, avoid or provide mitigations for geologic hazards and conform to the physical constraints and topography of the site. The project has been designed to step down the slope to reduce excavation and to conform to the topography of the site to the greatest extent possible while maintaining a reasonably sized dwelling in comparison to neighboring homes on Beach Drive. While the location of the structure requires significantly more grading than a location on the open beach, the proposed location promotes General Plan policies for minimizing visual impacts on the public viewshed as well as the purposes of the PR zone district to maintain open space for recreational purposes.

The proposed dwelling will not destabilize or exacerbate erosion of the bluff, and when completed will act as retaining structures to stabilize the toe of the bluff. The only potential for bluff destabilization will occur during excavation and construction. To minimize the chances of a failure occurring during this period, the project soils engineer has outlined a plan for construction phasing (See Exhibit D, Attachment ***6)***. The key elements of this plan are as follows:

- Site grading and retaining wall construction must take place between April 15'' and October 15th, when the site is *dry.*
- The project soils engineer and geologist must be on site during the work.
- Excavation and construction should begin at the top and work downward, a section at a time. Under this plan, a portion of the cliff would be excavated, followed by construction of that portion of the wall. After that section of the wall is completed, the next lower section of the cliff would be excavated.

A detailed work plan following these elements will be submitted with the building permit application. This work plan will detail the height of each individual section to be excavated and retained, and will take into account any concurrent excavation into the bluff for neighboring projects (See Condition of Approval II.B). Furthermore, a Waiver, Indemnification, Bonding, and Insurance Agreement will **be** required: which will include a requirement that the applicant/owner obtain and maintain Comprehensive Personal Liability (or equivalent) or Owner's Landlord and Tenant Liability Insurance coverage (as appropriate) of $1,000,000 plus an additional $ 1,000,000 of excess coverage to insure construction of the retaining structure will be completed in a timely manner ***(See*** Condition of Approval I.D). In addition, security bonds will be required to ensure bluff stabilization work can be completed by the County if construction stops prior to completion of all necessary shoring, retaining walls, tie-backs, and any other construction required to stabilize the bluff. One bond will be for 150% of the total construction cost to stabilize the bluff: which will be released after

satisfactory completion of all retention structures as determined by the County Geologist. The second bond will be for 50% of the above construction costs, to be released not less than one year after final inspection (Condition of Approval II.M).

Visual Compatibility

The development is within a mapped scenic resource area, and therefore must comply with General Plan Objective 5.10b (New Development within Visual Resource Areas). The purpose of this objective is to ensure that new development is appropriately designed and constructed to have minimal to no adverse impact upon identified visual resources. General Plan/LCP policies 5.10.2 and 5.10.3 require that development in scenic areas be evaluated against the context of their environment, utilize natural materials, blend with the area and integrate with the landform and that significant public vistas be protected from inappropriate structure design. Moreover, General Plan/LCP policy 5.10.7 allows structures to be visible from a public beach where compatible with the pattern of existing development. Generally, impacts to existing public views occur when development extends into areas that are currently natural and are visible from the beach. In this case, the project site is located to the immediate southeast of a line of existing and proposed single-family dwellings on Beach Drive (the house at 641 Beach Drive and the two dwellings proposed under Coastal Development Permit 99-0354). The proposed dwelling will be most visible when viewed from the open beach to the southeast of the project site, but is located on the least visually obtrusive portion of the site. Furthermore, the design of the structure will be integrated into the Beach Drive neighborhood in terms of height, bulk, mass, scale, architectural style, colors, and materials to minimize visual impacts to the greatest extent possible. The size of the proposed home is consistent with many of the existing homes on the bluff side of Beach Drive, including those which have not been elevated to meet FEMA requirements.

General Plan/LCP policies 8.6.5 and 8.6.6 require that development be complementary with the natural environment and that the colors and materials be chosen blend with the natural landforms. To comply with this policy, the proposed dwelling will incorporate beige colored stucco with wood-siding accents to complement the coastal bluff.

Variances

To construct a house within the limitations placed on the site by Geologic Hazards, visual compatibility, General Plan policies to minimize grading, and the building site established in the agreement with the California Coastal Commission, the applicant has requested variances to site standards to increase the maximum number of stones and to reduce the front and one side yard setback.

Number of stones

Inside the Urban Services Line, the County Code prohibits single-family dwellings greater than two stories absent a variance approval. To compensate for FEMA flood elevation requirements, construct within the constraints of the site, minimize grading, and preserve the open beach, the applicant has requested a variance to construct a three-story single-family dwelling. The steep topography of the site (with slopes greater than 70%) and the FEMA flood elevation requirements

present special circumstances inherent to the property that would deny the property owner a reasonably sized dwelling as enjoyed by residents of similar structures on the bluff side of Beach Drive. Many homes along the bluff side of Beach Drive already have three stories, including the house at 641 Beach Drive and the proposed dwellings on adjacent lots. For this reason, the granting of a variance to allow three stories will not constitute the granting of a special privilege.

Front yard and side yard setbacks

The property owner requests variances to the PR zone district setbacks to reduce the required 30 foot front yard setback to 10 feet and to reduce the 30 foot side yard setback along the northwestern property line to 4 feet.

The proposed reduction to the front yard setback is intended to reduce the amount grading by allowing the structure to "step up" the coastal bluff, avoiding excessive cuts into the base of the bluff. Furthermore, the right-of-way will only function as a driveway for the subject property, and will not be used by the public (public access is provided from the end of Beach Drive).

The purposes for the reduction to the side yard setback are twofold: First, the reduced side yard setback will advance General Plan policies for preserving public viewheds and open space by preserving more of the beach as open space while continuing the pattern of development along the bluff side of Beach Drive by maintaining similar setbacks to the RB zoned parcels in the immediate vicinity. Secondly, the reduction will allow the construction of a comparably sized single-family dwelling within the limits of the building envelope established by the agreement with the Coastal Commission.

Design Review

The County's Urban Designer evaluated the project for conformance with the County's Coastal Zone Design Criteria (Section 13.20.130) and the County's Site, Landscape, and Architectural Design Review Ordinance (Section 13.11) (Exhibit D, Attachment 10). The Urban Designer determined the proposed single-family dwelling to be in conformance with all applicable provisions of these ordinances, including criteria regarding protection of the public viewshed and compatibility with the existing neighborhood and coastal setting. Although the project will be located at a visible location, the design, materials, and colors minimize the visual impact of the dwelling to the greatest extent possible while maintaining a similar bulk, mass, and scale to existing and proposed houses on the bluff side of Beach Drive.

Environmental Review

The proposed project required Environmental Review under the California Environmental Quality Act (CEQA) as more than 1,000 cubic yards of grading is proposed within a designated scenic area. An Initial Study was prepared for review by the Environmental Coordinator, and a mitigated Negative Declaration was issued on September 22, 2004 (Exhibit D). No public comments were received during this time period.

Fence and gate within the front yard setback

The proposed metal gate between Beach Drive and the proposed driveway requires **a** Residential Development Permit as it will be between 3 feet and 6 feet in height within the front yard setback. The purpose of the gate is to prevent the public from using the driveway to access the beach, and will guide pedestrians to the proposed beach access immediately adjacent to the dnveway.

Conclusion

As proposed and conditioned, the project is consistent with all applicable codes and policies of the Zoning Ordinance and General Plan/LCP. Please see Exhibit "B" ("Findings") for a complete listing of findings and evidence related to the above discussion.

Staff Recommendation

- **APPROVAL** of Application Number **04-0044,** based on the attached findings and conditions.
- Certification of the Mitigated Negative Declaration under the California Environmental Quality Act.

Supplementary reports and information referred to in this report are on file and available for viewing at the Santa Cruz County Planning Department, and are hereby made a part of the administrative record for the proposed project.

The County Code and General Plan, as well as hearing agendas and additional information are available online at: www.co.santa-cruz.ca.us

Report Prepared By:

David Keyon
Santa Cruz County Planning Department
701 Ocean Street, 4th Floor
Santa Cruz CA 95060
Phone Number: (831) 454-3561
E-mail: david.keyon@co.santa-cruz.ca.us

Report Reviewed By:

Cathy Graves
Principal Planner
Development Review

Coastal Development Permit Findings

1. That the project is a use allowed in one of the basic zone districts, other than the Special Use (SU) district, listed in section 13.10.170(d) as consistent with the General Plan and Local Coastal Program LUP designation.

This finding can be made, in that single-family dwellings are allowed uses within the PR zone district as long as the site is not designated as a Priority Acquisition Site by the County and the design and location of the dwelling preserves the intent and purposes of the PR zone district. The site is not designated as a Priority Acquisition Site and the dwelling will he located at the base of the coastal bluff adjacent to existing and proposed development along Beach Drive, maximizing the area of open beach for recreational purposes. The PR zone district implements the General Plan/Local Coastal Program Land Use designation of O-R (Existing Parks and Recreation).

2. That the project does not conflict with any existing easement or development restrictions such as public access, utility, or open space easements.

This finding can be made, in that the proposed single-family dwelling and revetment will be designed to minimize to the greatest extent possible conflicts with the existing sewer easement and public access. The revetment will be designed to minimize potential damage to the sanitary sewer main line running along the Beach Drive right-of-way, and the design has been preliminarily approved by the Santa Cruz County Sanitation District.

The location of the proposed dwelling, driveway, and gate will preserve the existing public access point from the end of Beach Drive. Furthermore, the retention of the majority of the property as open space will allow the continued enjoyment of the beach by neighbors and the public.

3. That the project is consistent with the design criteria and special use standards and conditions of this chapter pursuant to section 13.20.130 et seq.

The proposed single-family dwelling is consistent with the design criteria and special use standards and conditions of County Code Section 13.20.130 *et* seq. for development in the coastal zone. Specifically: the structure follows the natural topography of the site by stepping up the hillside, proposes minimal grading considering the topography of the site, is visually compatible with the character of the surrounding urban residential neighborhood, and includes mitigations for the coastal hazards which may occur within its' 100 year lifespan (landslides, seismic events and coastal inundation). The project is not on a ridgeline, and does not obstruct any public views to the shoreline. The design and location of the proposed residence will minimize impacts on the site and the surrounding neighborhood. The house will use earth-tone colors (beige stucco accented by stained wood siding) to blend in with the bluff.

The architecture is complementary to the existing pattern of development and will blend with the built environment. The size of the dwelling is comparable to most of the dwellings along the bluff side of Beach Drive. The structure is flood elevated: but will meet the 28 foot PR zone district height limit. This height is similar to existing and proposed development along the bluff of side of Beach Drive, most of which is three stories like the proposed dwelling.

EXHIBIT B

4. That the project conforms with the public access, recreation, and visitor-serving policies, standards and maps of the General Plan and Local Coastal Program land use plan, specifically Chapter 2: figure 2.5 and Chapter 7, and, as to any development between and nearest public road and the sea or the shoreline of any body of water located within the coastal zone, such development is in conformity with the public access and public recreation policies of Chapter 3 of the Coastal Act commencing with section 30200.

This finding can be made, in that the location of the proposed single-family dwelling preserves public access and allows the continued enjoyment of the open beach by the public. Specifically; the proposal complies with Policy 7.7.10 of the General Plan/LCP (Protecting Existing Beach Access) in that pedestrian and emergency vehicle access will continued to be maintained from Beach Drive to the beach via a 12 foot wide driveway adjacent to the driveway for the proposed dwelling. The site is not designated for Primary Public Access in Policy 7.7.15, but is designated as a Neighborhood Public Access Point in Policy 7.7.18 under the name "Hidden Beach." The proposed project preserves neighborhood access as the location of the proposed dwelling will not block access from Beach Drive or other access points.

The proposed project will maintain the majority of the site as open space for recreation, as the majority of the site will be offered for dedication to the State, with the exception of the 60 foot by 140 foot wide building envelope (totaling 8,400 square feet or of about 5.08 acres).

5. That the proposed development is in conformity with the certified local coastal program.

The proposed single-family dwelling is consistent with the County's certified Local Coastal Program in that a single family dwelling is a permitted use in the PR (Parks and Recreation) zone district if the site is not a considered a priority acquisition site by the General Plan/LCP (which the project site is not). General Plan policy 6.2.15 allows for development on existing lots of record in areas subject to storm wave inundation or beach or bluff erosion within existing developed neighborhoods and where technical reports demonstrate that the potential hazards can be mitigated over the 100-year lifetime of the structure. Mitigations can include, but are not limited to, building setbacks, elevation of the structure, friction pier or deep caisson foundation; and where mitigation of the potential hazard is not dependent on shoreline protection structures except on lots where both adjacent parcels are already similarly protected; and where a deed restriction indicating the potential hazards on the site and level of prior investigation conducted is recorded on the property deed with the County Recorder. An Engineering Geologic and Geotechnical report have been prepared for this project evaluating the hazards and mitigations. These reports have been reviewed and accepted by the County of Santa Cruz. The proposed structure will be engineered to withstand landslide impacts on a reinforced roof, retaining most of the landslide materials on the roof with any excess flowing over the structure. The project is specifically designed to accommodate natural coastal erosion processes of the bluff face. The dwelling must be constructed flush with the bluff as any exposed rear walls cannot be feasibly designed to withstand the impact of a catastrophic landslide event. Thus, the rear walls must be designed as retaining walls and anchored into the bluff to prevent landslide impacts from displacing the structure. The dwelling will be elevated with no habitable portions under 21 feet above mean sea level, in accordance with FEMA, the County General Plan policies and Chapter

16.10 of the County Code for development within the 100-year wave hazard or V-zone. Thus, the proposed development is consistent with this General Plan policy.

General Plan/LCP policy 5.10.7 allows structures, which would be visible from a public beach, where compatible with existing development. The project site is located along the coastal bluff adjacent to Beach Drive about 100 feet south of the existing residence at 641 Beach Drive, and the proposed dwelling will be visually compatible with the existing residence and proposed residences on the bluff side of Beach Drive. The project is consistent with General Plan policies for residential infill development as the proposed dwelling will integrate with the built environment along Beach Drive. The height of the dwelling is 28 feet in conformance with the 28 foot height limit for the PR zone district, and consistent with most of the existing residences on the bluff side of Beach Drive. The size of the structure is consistent with the many of the existing homes on the bluff side of Beach Drive. General Plan/LCP policies 8.6.5 and 8.6.6 require that development be complementary with the natural environment and that the colors and materials chosen blend with the natural landforms. The proposed dwelling will use both stucco and wood siding and will be painted in dark beige to blend in with the bluff.

EXHIBIT B

Development Permit Findings

1. That the proposed location of the project and the conditions under which it would be operated or maintained will not be detrimental to the health, safety, or welfare of persons residing or working in the neighborhood or the general public, and will not result in inefficient or wasteful use of energy, and will not be materially injurious to properties or improvements in the vicinity.

This finding can be made, in that the proposed project complies with all development regulations applicable to the site with the exception of limitations on the maximum number of stories and the side and front yard setbacks, for which Variances findings can be made. The project site is located within a coastal hazard area and is expected to be subject to wave inundation: landslides and seismic shaking hazards. Engineering Geologic and geotechnical reports have been completed for this project analyzing these hazards and recommending measure to mitigate them. The habitable portions of the dwelling will be constructed above 21 feet mean sea level (msl), which is the expected height of wave inundation predicted for a 100-year storm event. The garage doors and non-supporting walls on the lower level will function as break-away walls to comply with FEMA requirements.

Construction will comply with prevailing building technology, the Uniform Building Code, the County Building ordinance, and the recommendations of the Engineering Geologic and Geotechnical report to insure the optimum in safety and the conservation of energy and resources. The structure will be engineered to withstand landslide impacts by incorporating a reinforced roof, retaining most of the landslide materials on the roof with any excess flowing over the structure. The project is specifically designed to accommodate natural coastal erosion processes of the bluff face. The dwelling must be constructed flush with the bluff face and be anchored into the bluff to withstand the impact of a catastrophic landslide event and prevent it from displacing the structure. An engineered foundation is required in order to anchor the dwelling in the event of a landslide impact and to withstand seismic shaking. Adherence to the recommendations of the soils engineer and geologist in the house design and construction will provide an acceptable margin of safety for the occupants of the proposed home. The project design will not change the existing pattern of debris flow and will not adversely affect the any future dwelling to the northwest. The retaining wall incorporated into the design of the dwelling will provide some stability to the toe of the cliff; but will not affect the stability of the upper cliff. **A** drainage system will be constructed, which the upslope neighbors may use to control drainage on the slope face. Thus, the project will provide a small benefit to the upslope property, although natural erosion of the upper bluff face is expected to continue.

2. That the proposed location of the project and the conditions under which it would be operated or maintained will be consistent with all pertinent County ordinances and the purpose of the zone district in which the site is located.

This finding can be made, in that a single-family dwelling is permitted within the PR (Parks and Recreation) zone district as long as the site *is* not a priority acquisition site listed in the County's General Plan/Local Coastal Program. The location of the proposed dwelling is consistent with the purpose of the PR zone district as the majority of the site will be left undeveloped and offered as a dedication to the State. With the exception of front yard and side yard setbacks, all PR zone district

site standards will be met. Variances have been applied for exceptions to the front yard and northwestern side yard setback to conform to the purposes of the PR zone district by placing development adjacent to existing development on Beach Drive (clustering) and maintaining the majority of the beach as open space (see Variance findings; below). The design of the proposed single-family dwelling is consistent with that of the Beach Drive neighborhood, as it is visually compatible and integrated with the character of neighborhood, and meet the intent of County Code Section 13.20.130, "Design Criteria for Coastal Zone Developments" and Chapter 13.11 "Site, Architectural and Landscape Design Review." Homes in the area range from one story on the beach side of Beach Drive to three-stories on the bluff side, with a wood or stucco exteriors and large expanses of windows and decks. The majority of houses in the neighborhood have flat roofs like the proposed dwelling. The proposed design, colors, and materials will harmonize with this existing development. Thus, the design of the proposed single-family dwelling is consistent with that of the adjacent Beach Drive neighborhood and the natural coastal setting of the site. As discussed in Finding #1, Engineering Geologic and Geotechnical reports have been prepared evaluating the landslide and coastal flooding hazards, which will be mitigated in accordance with the regulations set forth in Chapter 16.10 (Geologic Hazards) of the County Code. As discussed in the Coastal Findings above, the project is consistent with the County's Coastal Regulations (Chapter 13.20).

3. That the proposed use is consistent with all elements of the County General Plan and with any specific plan which has been adopted for the area.

This finding can be made, in that the project site is located within the O-R (Existing Parks and Recreation) General Plan/Local Coastal Program land use designation. As discussed in Coastal Development Permit Finding 5, all General Plan/LCP policies have been met in the proposed location of the project, the hazard mitigations and with the required conditions of this permit. The design of the single-family dwelling is consistent with that of the adjacent neighborhood on the bluff side of Beach Drive, and is sited and designed to be visually compatible and integrated with the character of that neighborhood and the coastal setting of the site. The dwelling will not block public vistas to the public beach and is designed to blend with the built and natural environment to minimize the projects' visual impact from the public beach. The house is designed to step down the slope, reducing the necessary grading given the limitations placed on the site with regards to slope and construction requirements to mitigate geologic hazards. For this reason the project conforms with General Plan policies to minimize grading.

A specific plan has not been adopted for this portion of Rio del Mar.

4. That the proposed use will not overload utilities and will not generate more than the acceptable level of traffic on the streets in *the* vicinity.

This finding can be made, in that adequate water and sewer service is available to the site and there will be minimal increase in traffic resulting from the construction of one single family dwelling on a legal lot of record. To limit negative impacts resulting from construction traffic on beach goers and residents, construction will be limited to weekdays between the hours of 8 **AM** and 5 PM (Condition of Approval III.H).

5. That the proposed project will complement and harmonize with the existing and proposed

EXHIBIT B

land uses in the vicinity and will be compatible with the physical design aspects, land use intensities, and dwelling unit densities of the neighborhood.

This finding can be made, in that the proposed single-family dwelling will not appear significantly different from the existing or proposed development on the bluff side of Beach Drive, which must be designed with the same constraints and limitations due to potential landslides and coastal flooding. The proposed project will result in **a** house of similar size and mass to other homes on the bluff side of Beach Drive, and will be designed to be visually compatible and integrated with the character of the neighborhood and natural coastal setting.

6. The proposed development project is consistent with the Design Standards and Guidelines (sections 13.11.070 through 13.11.076), and any other applicable requirements of this chapter.

This finding can be made, in that the proposed single-family dwelling is consistent with the County's Design Review Ordinance as the site design. architectural style, materials, colors, flat roof. and **three** story design within the PR zone district height result in a structure that is compatible with the surrounding development along the bluff side of Beach Drive (see Urban Designer's comments in Exhibit D, Attachment 10).

Variance Findings

1. That because of special circumstances applicable to the property, including size, shape, topography, location, and surrounding existing structures, the strict application of the zoning ordinance deprives such property of privileges enjoyed by other property in the vicinity under identical zoning classification.

The project site contains open beach and very steep slopes (slopes in excess of **70%)** on an unstable coastal bluff, with the only suitable area for development near the base of the bluff within the coastal flood hazard area (Flood Zone-V). Due to the topography and location within a flood hazard area, the structure must be elevated above the expected 100-year coastal inundation level at 21 feet above mean sea level in accordance with the regulations set forth by the Federal Emergency Management Agency (FEMA) and Chapter 16.10 (Geologic Hazards Ordinance) of the County Code. The lower floor area cannot be used as habitable space due to potential flood hazards from wave run-up, so a variance has been requested to increase the maximum number of stories from two to three in order to construct a home of a reasonable size without encroaching further onto the open beach. The majority of homes along the bluff side of Beach Drive are three stories, so a variance to height requirements would not constitute the granting of a special privilege as existing dwellings in the neighborhood already have three stories, including the dwelling at 641 Beach Drive and the approved dwellings under Coastal Development Permit 99-0354. Despite the increase in the number of stories, the height will still remain below the 28 foot maximum height limit for the PR zone district.

The requested variances to the side yard setback along the northwestern property line and the front yard setback from the Beach Drive right-of-way advance the purposes of the PR zone district in that they preserve a greater extent of the beach and bluff as open space than a proposal that complies with the 30' PR setbacks.

For the front yard setback variance, a special circumstance exists in relation to the Beach Drive right-of-way which bisects the site. Development within this setback on the bluff side of the right-of-way would be impossible due to the topography of the site, and development within this setback on the beach side would result in the house being located on an open beach in direct violation of County Ordinances and General Plan/Local Coastal Program Policies for protection of public viewsheds, public access to the beach, and construction of structures within areas susceptible to coastal flooding.

The requested variance to the side yard setback seeks to locate the proposed dwelling adjacent to existing dwellings on Beach Drive, minimizing the visual impact of the structure and maintaining public access to Hidden Beach by clustering the new house adjacent to an already developed area. The special circumstance justifying this variance is the purpose of the PR zone district to preserve open space at beaches and coastal bluffs for scenic views and recreational purposes. Strict application of the zoning ordinance would result in greater disturbance to the beach and compromised public views by placing the structure away from existing development on Beach Drive, conflicting with General Plan policies for preserving open space and public vistas and the purpose of the PR zone district.

A California Court of Appeal has held in its review of Craik v. County of Santa Cruz (2000 Daily Journal B.A.R 6627), that the application of FEMA regulations can be considered a special

EXHIBIT B

circumstance. In that case it was determined that aphysical disparity between the subject parcel and surrounding parcels was not required for findings for a variance.

2. That the granting of the Variance will be in harmony with the general intent and purpose of zoning objectives and will not be materially detrimental to the public health, safety, or welfare or injurious to property or improvements in the vicinity.

Compliance with the recommendations and construction methods required by the Engineering Geologic and Geotechnical reports accepted by the Planning Department will insure that granting the variance to construct the proposed three-story single family dwelling will not be materially detrimental to the public health, safety and welfare or be materially injurious to property or improvements in the vicinity. The residence is required to be elevated above 21 feet mean sea level with no habitable features on the ground floor and constructed with a break-away garage door and walls (except those used as support structures). No mechanical; electrical or plumbing equipment shall be installed below the base flood elevation. The dwelling will be engineered to withstand landslide impacts upon the roof and to allow slide debris to accumulateupon it. This design allows for the natural pattern of debris flow and minimizes deflection onto the adjacent properties.

Granting a variance to the front yard setback will allow the dwelling to be in line with existing development on the bluff side of Beach Drive, minimize grading, and allow the construction of the dwelling in a location recommended by the Geotechnical and Engineering Geologic reports to minimize landslide risk.

A variance to the side yard setoack along the northwestem property line advances the intent and purpose of the PR zone district in that the development will be clustered with existing development along Beach Drive, maximizing the amount of the site as open space for view preservation and public recreation.

3. That the granting of such variances shall not constitute a grant of special privileges inconsistent with the limitations upon other properties in the vicinity and zone in which such is situated.

The granting of variances to increase the maximum number of stories from two to three will not constitute a grant of special privilege, as similar variances have been granted for houses of similar construction on the bluff side of Beach Drive due to FEMA flood elevation requirements. To obtain a reasonably sized house at *two* stories, the structure would be larger and would spread out over a larger area ofbeach, in conflict with General Plan/LCP Policies for preservation ofbeach viewsheds and open space.

Granting a reduction to the front yard and northwestem side yard setback will align the proposed house with existing and proposed development on the bluff side of Beach Drive more consistent with the setbacks of the adjacent RB zoned parcels, and will therefore not constitute a special privilege.

EXHIBIT B

Conditions of Approval

Exhibit **A:** Project plans, 3 sheets drawn by Thacher & Thompson Architects and dated March 11, 2004, 7 sheets drawn by Mesiti-Miller Engineering and dated March 11, 2004.

I. This permit authorizes the construction of a three-story Single-family dwelling. Prior to exercising any rights granted by this permit including, without limitation, any construction or site disturbance, the applicant/owner shall:

A. Sign, date, and return to the Planning Department one copy of the approval to indicate acceptance and agreement with the conditions thereof.

B. Obtain a Building Permit from the Santa Cruz County Building Official.

C. Obtain all required Grading Permits from the Santa Cruz County Building Official for excavation for the dwelling and for the rip-rap and revetment.

D. The owner shall execute the attached WAIVER, INDEMNIFICATION, BONDING, AND INSURANCE AGREEMENT with the County (see Attachment 1 to the conditions of approval) and meet all requirements therein This agreement will require the applicant/owner to obtain and maintain Comprehensive Personal Liability (or equivalent) or Owner's Landlord and Tenant Liability Insurance coverage (as appropriate) of $1,000,000 plus an additional $1,000,000 of excess coverage per single-family dwelling. Proof of insurance shall be provided.

II. Prior to issuance of a Building Permit the applicant/owner shall:

A. Submit proof that these conditions have been recorded in the official records of the County of Santa Cruz (Office of the County Recorder).

B. Submit a detailed work plan following the recommendations of the project soils engineer.

C. Submit Final Architectural Plans for review and approval by the Planning Department. The final plans shall be in substantial compliance with the plans marked Exhibit **"A"** on file with the Planning Department. The final plans shall include the following additional information:

1. Identify finish of exterior materials and color of roof covering for Planning Department approval. Any color boards must be in 8.5" x 11" format.

2. Exterior elevations identifying finish materials and colors. Colors shall be earth tone, subdued colors (not white). All windows facing the beach shall utilize low-reflective glazing materials.

EXHIBIT *C*

3. The final plans shall include a specification that all windows, doors and other openings will be designed to resist and hold the force of a landslide as specified by the geotechnical engineer. No openings are allowed in the rear of the buildings, and all side windows must be approved by the County Geologist.

4. The structure shall be engineered to resist and hold the force of a landslide, as specified by the geotechnical engineer. The roof shall be engineered to support the static load of anticipated landslide debris in conformance with the soils engineering report recommendations.

5. Details showing compliance with the following FEMA and County flood regulations:

   a. The lowest habitable floor and the top of the highest horizontal structural members (joist or beam) which provides support directly to the lowest habitable floor and elements that function as a part of the structure such as furnace or hot water heater, etc. shall be elevated above the 100-year wave inundation level. Elevation at this site is a minimum of 21 feet above mean sea level. The building plans must indicate the elevation of the lowest habitable floor area relative to mean sea level and native grade. Locations for furnaces, hot water heaters shall be shown.

   b. Show that the foundations shall be anchored and the structures attached thereto to prevent flotation, collapse and lateral movement of the structure due to the forces to which they may be subjected during the base flood and wave action.

   c. The garage doors and non-bearing walls shall function as breakaway walls. The garage doors and front wall shall be certified by a registered civil engineer or architect and meet the following conditions:

      i. Breakaway wall collapse shall result from a water load less than that which would occur during the base flood and

      ii. The elevated portion of the building shall not incur any structural damage due to the effects of wind and water loads acting simultaneously in the event of a base flood.

      iii. Any walls on the ground floor not designated as breakaway shall be demonstrated to be needed for shear or structural support and approved by Environmental Planning.

6. Grading, drainage, and erosion control plans.

7. Final plans shall include a copy of the conditions of approval,

8. **A** site plan showing the location of all site improvements, including, but not limited to, points of ingress and egress, parking areas, sewer laterals and drainage improvements. A standard driveway and conform is required.

9. **A** final landscape plan. This plan shall include the location, size, and species of all existing and proposed trees and plants within the front yard setback and shall meet the foilowing criteria:

   a. Plant Selection. At least 80 percent of the plant materials selected for non-turf areas (equivalent to 60 percent of the total landscaped area) shall be drought tolerant. Native plants are encouraged. Up to 20 percent of the plant materials in non-turf areas (equivalent to 15 percent of the total landscaped area), need not be drought tolerant, provided they are grouped together and can be irrigated separately.

   b. Turf Limitation. Turf area shall not exceed **25** percent of the total landscaped area. Turf area shall be of low to moderate water-using varieties, such as tall fescue. Turf areas should not be used in areas less than 8 feet in width.

10. Details showing compliance with fire department requirements.

11. Final plans shall reference and incorporate all recommendations of ***the*** Engineering Geologic and Geotechnical reports prepared for this project, with respect to the construction and other improvements on the site. All pertinent Geotechnical report recommendations shall be included in the construction drawings submitted to the County for a Building Permit. Plan review letters from the soils engineer and geologist shall be submitted with the plans stating that the plans have been reviewed and found to be in compliance with the recommendations of the Geotechnical and Engineering Geologic reports.

12. Final plans shall conform with the conditions of the Soils and Geologic Reports Review dated September 3, 2004 (Exhibit D, Attachment 12).

13. Final plans shall note that Soquel Creek Water District will provide water service and shall meet all requirements of the District including payment ***of*** any inspection fees. Final plans shall show the water connection and shall be reviewed and accepted by the District.

14. Final plans shall note that Santa Cruz County Sanitation District will provide sewer service and shall meet all requirements of the District including payment of a deposit for review and inspections, in an amount determined by the Sanitation District. Final plans for the sewer system shall be reviewed and accepted by the District, and shall include the following additional information:

a. Show the **new** location of the manhole moved to beyond the westerly property line.

b. Details showing that proposed construction will not damage the existing sanitary sewer line.

c. Sign and record a document prepared by District Counsel holding the Sanitation District harmless for any/all damage that might occur to pnvate or public property from the repair or replacement of the public sewer mains.

15. Final plans shall include a detailed drainage plan conforming with the requirements of the Drainage Section of the Department of Public Works. The drainage plan shall include an enclosed drainage system above the proposed residence of adequate size and capacity to carry the runoff from **the** upslope property. All proposed impervious areas within the parcel shall be shown on the plans. All requirements of the Drainage Section of the Department of Public Works shall be met and the owner/applicant shall pay all fees for Zone 6 Santa Cruz County Flood Control and Water Conservation District, including plan check and permit processing fees.

16. Submit a detailed erosion control plan to be reviewed and accepted by Environmental Planning. The erosion control plan shall include interim measures to prevent during construction and after construction on the bluff face.

17. Any **new** electrical power, telephone, and cable television service connections shall be installed underground.

18. All improvements shall comply with applicable provisions of the Americans With Disabilities Act and/or Title 24 of the State Building Regulations.

D. Meet all requirements of and pay Zone ***6*** drainage fees to the County Department of Public Works, Drainage. Drainage fees will be assessed on the net increase in impervious area.

E. Meet all requirements and pay any applicable plan check fee of the Aptos/La Selva Fire Protection District.

F. Pay the fees for Parks and Child Care mitigation in effect at time of building permit issuance. Currently, these fees are, respectively, $1,000 and $109 per bedroom.

G. Pay the fees for Roadside **and** Transportation improvements at time of building permit issuance for one single-family dwelling. Currently, these fees are $4,000 per single-family dwelling ($2,000 each for Roadside and Transportation Improvement fees).

EXHIBIT C

H. Provide required off-street parking for **3** cars. Parking spaces must be ***8.5*** feet wide by 18 feet long and must be located entirely outside vehicular rights-of way. Parking must be clearly designated on the plot plan.

I. Submit a written statement signed by an authorized representative of the school district in which the project is located confirming payment in full of all applicable developer fees and other requirements lawfully imposed by the school district.

J. The owner shall record a Declaration of Geologic Hazards to be provided by Environmental Planning staff on the property deed. Proof of recordation shall be submitted to Environmental Planning. **YOU MAY NOT ALTER THE WORDING OF THIS DECLARATION.** Follow the instructions to record and return the form to the Planning Department.

K. **A** Deed Restriction shall be recorded which prohibits the use of the roof, side yards **and** rear yard except for the purpose of maintenance or repair.

L. Submit an engineer's statement estimating construction costs including earthwork, drainage, all inspections (soils, structural, and civil engineers, etc.), and erosion control associated with the foundation, retaining walls, and drainage system for review and approval per the Waiver, Indemnification, Security, and Insurance Agreement. These estimates will be reviewed by the County Geologist and will be used for determining the appropriate amounts for each bond.

M. The two security bonds (one for 150% of the total construction cost released after completion of all slope stabilization construction; one for 50% released one year after final inspection) shall be in place prior to issuance of the building permit. Please submit proof indicating if Certificate of Deposits or Letters of Credit will be used to satisfy the bonding requirement.

III. Prior to and during site disturbance and construction:

A. Prior to any disturbance on either property the applicant shall convene a pre-construction meeting on the site with the grading contractor supervisor, construction supervisor, project geologist, project geotechnical engineer, Santa Cruz County grading inspector, and any other Environmental Planning staff involved in the review ***of*** the project.

B. All land clearing, grading and/or excavation shall take place between April 15 and October 15. Excavation and/or grading is prohibited before April 15 and after October 15. Excavation and/or grading may be required to start later than April 15 depending on site conditions, as determined by Environmental Planning staff. If grading/excavation is not started by August 1st, grading must not commence until after April 15'' the following year to allow for adequate time to complete grading prior to October IS''

EXHIBIT *C*

C. Erosion shall be controlled at all times. Erosion control measures shall be monitored, maintained and replaced as needed. No turbid runoff shall be allowed to leave the immediate construction site.

D. Dust suppression techniques shall be included **as** part of the construction plans and implemented during construction.

E. All earthwork and retaining wall construction shall be supervised by the project soils engineer and shall conform with the Geotechnical report recommendations.

F. All foundation and retaining wall excavations shall be observed and approved in writing by the project soils engineer prior to foundation pour. **A** copy of the letter shall be kept on file with the Planning Department.

G. Prior to sub-floor building inspection, compliance with the elevation requirement shall be certified by a registered professional engineer, architect or surveyor and submitted to the Environmental Planning section of the Planning Department. Construction shall comply with the FEMA flood elevation requirement of **21** feet above mean sea level for all habitable portions of the structure. Failure to submit the elevation certificate may be cause to issue a stop work notice for the project.

H. Construction shall only occur between the hours of **8** AM and 5 PM, Monday through Friday, with no construction activity allowed on weekends.

IV. All construction shall be performed according to the approved plans for the Building Permit. For reference in the field, a copy of these conditions shall be included on all construction plans. Prior to final building inspection, the applicant/owner must meet the following conditions:

A. All site improvements shown on the final approved Building Permit plans shall be installed.

B. All inspections required by the building and grading permits shall be completed to the satisfaction of the County Building Official, the County Senior Civil Engineer, and the County Geologist.

C. The soils engineer/geologist shall submit a letter to the Planning Department verifying that all construction has been performed according to the recommendations of the accepted geologic and soils report. A copy of the letter shall be kept in the project file for future reference.

D. Final erosion control and drainage measures shall be completed.

E. Pursuant to Sections 16.40.040 and 16.42.100 of the County Code, if at my time during site preparation, excavation, or other ground disturbance associated with this development, any artifact or other evidence of an historic archaeological

EXHIBIT C

resource or a Native American cultural site is discovered, the responsible persons shall immediately cease and desist from all further site excavation and notify the Sheriff-Coroner if the discovery contains human remains, or the Planning Director if *the* discovery contains no human remains. The procedures established in Sections 16.40.040 and 16.42.100, shall be observed.

F. The applicant shall obtain a permit from the California Coastal Commission for the revetment to protect the driveway and dwelling. **A** copy of the permit and all conditions of approval shall be submitted to the County prior to issuance of the building permit.

G. All requirements of the Santa Cruz County Sanitation District for the construction of the driveway and rip-rap shall be followed.

V. Operational Conditions

A. Modifications to the architectural elements including but not limited to exterior fmishes, window placement, roof design and exterior elevations are prohibited, unless an amendment to this permit is obtained.

B. All portions of either structure located below 21 feet mean sea level shall be maintained as non-habitable.

1. The ground floor shall not be mechanically heated, cooled, humidified or dehumidified.

2. No toilets, kitchen, bedrooms, other habitable rooms, furnaces or hot water heaters shall be installed.

3. The structure **may** be inspected for condition compliance twelve months after approval and at any time thereafter at the discretion of the Planning Director.

C. This permit prohibits the use of the roof, side yards and rear yard except for the purpose of maintenance and/or repair.

D. The homes must be maintained at all times. In the event of a significant slope failure, the owner must remove the debris from the roof within 48 hours under the direction of a civil engineer.

E. **All** landscaping shall be **permanently** maintained.

F. The residence shall maintain a subdued earth-tone coloration.

G. In the event that future County inspections of the subject property disclose noncompliance with any Conditions of this approval or any violation of the County Code, the owner shall pay to the County the full cost of such County inspections, including any follow-up inspections and/or necessary enforcement

EXHIBIT C

actions, up to and including permit revocation.

VI. As a condition of this development approval, the holder of this development approval ("Development Approval Holder"), is required to defend, indemnify, and hold harmless the COUNTY, its officers, employees, and agents, from and against any claim (including attorneys' fees), against the COUNTY, it officers, employees, and agents to attack, set aside, void, or annul this development approval of the COUNTY or any subsequent amendment of this development approval which is requested by the Development Approval Holder.

A. COUNTY shall promptly notify the Development Approval Holder of any claim, action, or proceeding against which the COUNTY seeks to be defended, indemnified, or held harmless. COUNTY shall cooperate fully in such defense. If COUNTY fails to notify the Development Approval Holder within sixty (60) days of any such claim, action, or proceeding, or fails to cooperate fully in the defense thereof, the Development Approval Holder shall not thereafter be responsible to defend, indemnify, or hold harmless the COUNTY if such failure to notify or cooperate was significantly prejudicial to the Development Approval Holder.

B. Nothing contained herein shall prohibit the COUNTY from participating in the defense of any claim, action, or proceeding if both of the following occur:

1. COUNTY bears its own attorney's fees and costs; and

2. COUNTY defends the action in good faith.

C. Settlement. The Development Approval Holder shall not be required to pay or perform any settlement unless such Development Approval Holder has approved the settlement. When representing the County, the Development Approval Holder shall not enter into any stipulation or settlement modifying or affecting the interpretation or validity of any of the terms or conditions of the development approval without the prior written consent of the County.

Successors Bound. "Development Approval Holder" shall include the applicant and the successor'(s) in interest, transferee(s), and assign(s) of the applicant.

VII. Mitigation Monitoring Program.

The mitigation measures listed under this heading have been incorporated into the conditions of approval for this project in order to mitigate or avoid significant effects on the environment. As required by Section 21081.6 of the California public Resources Code, a monitoring and reporting program for the above mitigations is hereby adopted as a condition of approval for this project. This monitoring program is specifically described following each mitigation measure listed below. The purpose of this monitoring is to ensure compliance with the environmental mitigations during project implementation and operation. Failure to comply with the conditions of approval, including the terms of the adopted monitoring program, may result in permit revocation pursuant to Section

EXHIBIT C

18.10.462 of the Santa Cruz County Code.

A Mitigation Measure: Pre-construction meeting on site (Condition III.A).

Monitoring Program: Prior to beginning construction a pre-construction meeting with the applicant, grading contractor supervisor, construction supervisor, project geologist, project geotechnical engineer, Santa Cruz County grading inspector, and other Environmental Planning staff shall be convened to ensure proper implementation of all mitigation measures. **A** stop **work** order will be issued if work commences prior to this meeting.

B. Mitigation Measure: Drainage (Conditions II.C.6 and ILC.**15).**

Monitoring Program: A preliminary drainage plan prepared by a civil engineer has been approved by the County Geologist and the Department of Public Works Drainage division for the discretionary stage. Final drainage plans for the building permit stage must be approved by both the County Geologist and DPW Drainage prior to building permit issuance, and failure to comply with their requirements will result in the issuance of a stop-work order.

C. Mitigation Measure B.2: Construction Plan (Condition ILB).

Monitoring Program: Prior to approval of any grading or building permit, a detailed construction plan, prepared by a Civil Engineer, shall be prepared indicating how the earthwork will proceed. The plan shall include a shoring plan, the phases of excavation, details showing a five foot maximum height for temporarily unsupported cuts, notes indicating excavation from the top down, and notes indicating the project geotechincal engineer will be on site during excavation, etc. The project geotechnical engineer shall submit a letter approving the construction plan. The construction plan shall be closely followed or a stop-work notice will be issued.

D. Mitigation Measure B.4: Limits on Winter Grading (Condition III.B)

Monitoring Program: No permits shall be issued for grading between October 15'' and April 15th. If grading is not started by August 1st, grading must not commence until after April 15'' the following year to allow for adequate time to complete grading prior to October **15''.**

E. Mitigation Measure B.5: Plan Review Letters (Condition II.C.11).

Monitoring Program: Prior to approval of any grading or building permit, plan review letters from the project geologist and geotechnical engineers indicating the final plans conform with the recommendations of the engineering geologic and geotechnical reports. A plan review letter from the project structural engineer shall be submitted indicating that all FEMA elevation requirements have been met, including the requirement that all areas below 21 feet M.S.L. be non-habitable with break-away

construction.

F. Mitigation Measure B.6: Recordation of Geologic Hazards (Condition II.J).

Monitoring Program: Proof of a recorded Declaration of Geologic Hazards will be required prior to approval of the building permit application by Environmental Planning staff.

H. Mitigation Measure C: Coastal Flooding (Conditions **II.C.5** and III.G).

Monitoring Program: Elevations revised to show that the bottom of the lowest structural member of the lowest finished floor is above 21 feet MSL and that enclosed areas are designed to be "breakawaf' per FEMA regulations. Final building plans will be required to meet all FEMA regulations, including provisions for "breakaway" garage doors and interior walls, prior to issuance of the building permit. Prior to sub-floor building inspection, an elevation certificate must be submitted to Environmental Planning staff for approval or a stop-work notice will be issued.

I. Mitigation Measure E: Erosion Control Plan (Condition II.C.16).

Monitoring Program: Prior to issuance of any grading or building permit the applicant shall submit a detailed erosion control plan for review and approval by Environmental Planning staff. This plan shall indicate the destination of excess fill.

J. Mitigation Measure F: Visual Impacts (Conditions II.C.1., II.C.2., V.A., and V.F.).

Monitoring Program: Both dwellings will used subdued, earth tone colors in the brown-green range, as indicated by the latest photo-simulation and color board. Building plans will be required to be approved by the County's Urban Designer for conformance with these requirements and provisions of the County's Design Review Ordinance (Chapter 13.11 of the County Code) prior to issuance of the building permit. Prior to final inspection, the Urban Designer will inspect the structures to ensure conformity with the approved plans for the Coastal Development/ Variance Permit.

Minor variations to **this** permit which do not affect the overall concept or density may be approved by **the** Planning Director at the request of the applicant or **staff** in accordance with Chapter 18.10 of the County Code.

Please note: This permit expires **two** years from the effective date unless you **obtain** the required permits and commence construction.

EXHIBIT C

Application # 04-0044
APN: 043-161-18, **-41,** -44
Owner: **Mark** DeMattei

Approval Date: _____

Effective Date: _____

Expiration Date: _____

Cathy Graves	David Keyon
Principal Planner	Project Planner

Appeals: Any property owner, or other person aggrieved, or **any** other person whose interests are adversely affected by any act or determination of the Planning Commission, may appeal the act or determination to the Board of Supervisors in accordance with chapter 18.10 of the Santa **Cruz** County Code.

EXHIBIT C

CALIFORNIA DEPARTMENT OF FISH AND GAME

CERTIFICATE OF FEE EXEMPTION

De minimis Impact Finding

Project Title/Location (Santa Cruz County):

Application Number: 04-0044 **Mark DeMattei, DeMattei Construction, for Howell & McNeil Development, LLC**

Proposal to construct a 4,281 square foot Single Family Dwelling. Requires a Coastal Development Permit; a Variance to reduce the required 30 foot front yard setback to about 10 feet and the required 30 foot sideyard setbacks to about 5 feet, and increase the two story maximum in the Urban area to 3 stories; a Residential Development Permit for a fence between 3' and ***6'*** tall in the front yard setback; Preliminary Grading Approval for approximately 1,230 cubic yards of excavation and 1,170 cubic yards of rip rap revetment; a Geologic Report Review and Soils Report Review. The project location is on the southern end of Beach Drive: about 1 mile southeast of the intersection of Rio del Mar Boulevard, and Beach Drive in Aptos, California.

APN: 043-161-18(private r.o.w), 043-161-41, & 043-161-44 **David Keyon, Staff Planner**

Zone District: PR (Parks, Recreation, and Open Space)

Findings of Exemption (attach as necessary):

An Initial Study has been prepared for this project by the County Planning Department according to the provisions of CEQA. This analysis shows that the project will not create any potential for adverse environmental effects on wildlife resources.

Certification:

I hereby certify that the public agency has made the above finding and that the project will not individually or cumulatively have an adverse effect on wildlife resources, as defined in Section 711.2 of the Fish and Game Code.

KEN HART
Environmental Coordinator for
Tom Burns, Planning Director
County of Santa Cruz

Date: _____

EXHIBIT D

COUNTY OF SANTA CRUZ

PLANNING DEPARTMENT
701 OCEAN STREET. 4TH FLOOR SANTA CRUZ CA 95060
(831)454-2580 FAX: (831)454-2131 TDD: (831)454-2123
TOM BURNS, PLANNING DIRECTOR

NEGATIVE DECLARATION AND NOTICE OF DETERMINATION

Application Number: 04-0044

Mark DeMattei, DeMattei Construction, for Howell & McNeil Development, LLC

Proposal to construct a 4,281 square foot Single Family Dwelling. Requires a Coastal Development Permit; a Variance to reduce the required 30 foot front yard setback to about 10 feet and the required 30 foot sideyard setbacks to about **5** feet, an increase the two story maximum in the Urban area to 3 stories; a Residential Development Permit for a fence between 3' and 6' tall in the front yard setback; Preliminary Grading Approval for approximately 1,330 cubic yards of excavation and 1,170 cubic yards of rip rap revetment; a Geologic Report Review and Soils Report Review. The project location is on the southern end of Beach Drive: about 1 mile southeast of the intersection of Rio del Mar Boulevard, and Beach Drive in Aptos, California.

APN: 043-161-18(private r.o.w), 043-161-41, & 043-161-44

David **Keyon,** Staff Plannei

Zone District: PR (Parks, Recreation, and Open Space)

ACTION: Negative Declaration with Mitigations

REVIEW PERIOD ENDS: October 28,2004

This project will be considered at a public hearing by the Planning Commission. The time, date and location have not been set. When scheduling does occur, these items will be included in all public hearing notices for the project.

Findings:

This project, if conditioned to comply with required mitigation measures or conditions shown below, will not have significant effect on the environment. The expected environmental impacts of the project are documented in the Initial Study on this Project attached to the original of this notice on **file** with the Planning Department, County of Santa Cruz, 701 Ocean Street Santa Cruz, Caiifornia.

Required Mitioation Measures or Conditions:

_____ None

__XX__ Are Attached

Review Period Ends __October 28. 2004__

Date Approved By Environmental Coordinator __November 1. 2004__

KEN HART
Environmental Coordinator
(831)454-3127

If this project is approved, complete and file this notice with the Clerk of the Board:

NOTICE OF DETERMINATION

The Final Approval of This Project was Granted by _____

on _____. No EIR was prepared under **CEQA.**

THE PROJECT WAS DETERMINED TO NOT HAVE SIGNIFICANT EFFECT ON THE ENVIRONMENT

Date completed notice filed with Clerk of the Board: _____

EXHIBIT D

NAME : Mark DeMattei, DeMattei Construction
APPLICATION: 04-0044
APN: 43-161-18, 41, 44

NEGATIVE DECLARATION MITIGATIONS

A. In order to ensure that the mitigation measures B - F (below) are communicated to the various parties responsible for constructing the project, prior to any disturbance on the property the applicant shall convene a pre-construction meeting on the site. The following parties shall attend: applicant, grading contractor supervisor, construction supervisor, project geologist, project geotechnical engineer, Santa Cruz County grading inspector and /or other Environmental Planning staff. The permit conditions and work plan shall be reaffirmed by all parties and the destination for the excess fill shall be identified at that time.

B. In order to avoid impacts from potential geologic and geotechnical hazards on the property, specifically potential for landslide and liquefaction:

1. The project shall be fully engineered and designed for the site conditions in accordance with the approved geologic report (Nielsen and Associates, January 2004), the approved geotechnical report and addenda letter (Haro, Kasunich, Associates, dated January 27, 2004 and letter of John Kasunich, dated June 3,2004) and the review letter from the County Geologist detailing additional recommendations (J. Hanna, letter dated September 3,2004).

   Prior to scheduling the public hearing the applicant shall provide a letter from the project geologist and project geotechnical engineer indicating that they have reviewed the plans and that the design meets the recommendations of their reports.

2. Prior to approval of any building or grading permit, the applicant shall submit a detailed construction plan, prepared by a Civil Engineer, indicating how the earthwork will proceed.. The plan shall indicate the shoring plan, the phases of excavation, five foot **maximum** height for temporarily unsupported cuts, plan to work from the top down, project geotechnical engineer on site during excavation, etc. The construction plan shall not be submitted without an accompanying letter from the project geotechnical engineer approving the plan.

4. Grading for the home and the coastal protection structures shall not occur between October 15 and April 15. Further, if grading has not started before August 1 it cannot be started until April 15 of the following year;

5. Prior to approval of any building or grading permit, the applicant shall submit a plan check letter from the project geologist and project geotechnical engineer indicating that they have reviewed the plans and that they meet the recommendations of their reports, and from the project structural engineer that the FEMA elevation requirements and requirement for non habitable break away construction below 21 feet M.S.L. has been met;

6. Prior to approval of any building or grading permit, the applicant shall record **a** Declaration of Geologic Hazard onto the deed which identifies the hazards on the site,

EXHIBIT D

references the technical reports, and identifies the required mitigation measures and maintenance required to maintain the original level of mitigation.

C. In order to avoid impacts from flooding and wave run up, prior to public hearing applicant shall revise the plans to clearly show that the elevation of the bottom of the lowest structural member of the lowest finished floor is above 21 feet MSL, and that enclosed areas below that level are designed to "breakaway" under pressure, pursuant to FEMA regulations. Plans shall be revised to remove any utilities below 21 MSL and to remove habitable conditioned space.

D. In order to ensure that the placement of the rip rap structure does not damage or otherwise negatively impact the performance of the existing sanitation lines, the applicant shall provide detailed plans for the protection of the lines and the placement of the rip rap to the Sanitation District for review and approval, along with any technical documentation that is required by the District to evaluate the proposal. Plans shall indicate how lines will be protected both during construction and over time. If the alternative that is accepted by the District causes revisions to the project site plan those revisions shall not include extending the encroachment of the rip rap further onto the beach than shown on Sheet 1, Plot Plan, Thacher and Thompson, dated March 11,2004, increasing the size or bulk of the structure beyond the dimensions shown on plan sheets C4.1 and C9.2, Mesiti-Miller dated March 11,2004, or the construction of any additional above grade element that might create a visual impact to the public view.
The applicant shall provide written documentation that the Sanitation District has accepted the proposed plan prior to the scheduling of the public hearing.

E. In order to minimize impacts from accelerated erosion, winter grading shall not be approved. In addition, prior to issuing building or grading permits the applicant shall submit a detailed erosion control plan for review and approval of Environmental Planning Staff. Plans shall indicate that the destination of excess fill is either the municipal landfill or a receiving site with valid permit.

F. To mitigate the visual impacts of the new home and coastal protection structure to the public beach the applicant shall revise the plans to indicate:

1. Exterior colors of the home, fence and driveway shall be earth tones in the beige-green range, trim and accent colors shall be subdued, and exterior materials shall be chosen to blend with the colors and form of the coastal bluff.

2. The coastal protection structure shall not encroach further seaward than the existing rip rap at 646 Beach Drive. Any existing rip rap boulders on the property that are not incorporated in to the new wall shall be removed from the beach. The final coastal protection structure shall not exceed the dimensions shown on plan sheets C4.1 and C9.2, Mesiti-Miller dated March 11. 2004.

EXHIBIT D

COUNTY OF SANTA CRUZ

PLANNING DEPARTMENT
701 OCEAN STREET. 4TH FLOOR, SANTA CRUZ, CA 95060
(831)454-2580 FAX (831) 454-2131 TDD: (831)454-2123
TOM BURNS, PLANNING DIRECTOR

NOTICE OF ENVIRONMENTAL REVIEW PERIOD

SANTA CRUZ COUNTY

APPLICANT, Mark DeMattei, DeMattei Construction, for Howell & McNeil Development, LLC

APPLICATION NO.: 04-0044

APN: 043-161-18 (private r.o.w), 043-161-41, & 043-161-44

The Environmental Coordinator has reviewed the Initial Study for your application and made the following preliminary determination:

XX Negative Declaration
(Your project will not have a significant impact on the environment.)

XX Mitigations will be attached to the Negative Declaration.

_____ No mitigations will be attached.

_____ Environmental Impact Report
(Your project may have a significant effect on the environment. An EIR must be prepared to address the potential impacts.)

As part of the environmental review process required by the California Environmental Quality Act (CEQA), this is your opportunity to respond to the preliminary determination before it is finalized. Please contact Claudia Slater, Environmental Coordinator at (831) 454-5175, if you wish to comment on the preliminary determination. Written comments will be received until 5:00 p.m on the last day of the review period.

Review Period Ends: October 28,2004

David Kevon
Staff Planner

Phone: 454-3561

Date: September 22,20134

EXHIBIT D

COUNTY **OF** SANTA CRUZ
PLANNING DEPARTMENT

Date: **September 13, 2004**
Staff Planner: David Keyon

ENVIRONMENTAL REVIEW
INITIAL STUDY

APPLICANT: Mark DeMattei, DeMattei Construction
APN's: 043-161-18 (private r.o.w.), 043-161-41, 043-161-44
OWNER: Howell & McNeil Development, LLC
Application No: 04-0044 Supervisorial District: 2nd District
Site Address: No situs
Location: Southern end of Beach Drive, about 1 mile southeast of the intersection of Rio del Mar Blvd. and Beach Drive in Aptos.

EXISTING SITE CONDITIONS

Parcel Sizes: About 0.65 acre for APN 043-261-18 (a private r.o.w), 1.3 acres for APN 043-161-41, and 3.6 acres for APN 043-161-44.
Existing Land Use: Open beach
Vegetation: Some vegetation on coastal bluff, none on the beach
Slope: 0-15% +/- 3.9 acres, 16-30% +/- 0.14 acres,
31-50% +/- 0.14 acres, 51+% +/- 1.4 acres
Nearby Watercourse: Pacific Ocean
Distance To: About 300 feet, depends on tide
Rock/Soil Type: Beach sand (Soils Index No. 109), Elkhom Sandy Loam (Soils Index No. 133)

ENVIRONMENTAL RESOURCES AND CONSTRAINTS

Groundwater Supply: None mapped
Water Supply Watershed: None mapped
Groundwater Recharge: None mapped
Timber or Mineral: None
Agricultural Resource: No
Biologically Sensitive Habitat: None mapped
Fire Hazard: None mapped
Floodplain: Flood Zone-V, coastal hazard
Erosion: Coastal erosion, landsliding
Landslide: Landslide hazard present
Hazardous Materials: None

Liquefaction: High Probability
Fault Zone: None mapped
Scenic Corridor: Scenic Coastal
Historic: None mapped
Archaeology: None mapped
Noise Constraint: None mapped
Electric Power Lines: None
Solar Access: To the southwest
Solar Orientation: Optimal

SERVICES

Fire Protection: Aptos/La Selva Fire Protection District
Drainage District: Zone 6
School District: Pajaro Valley Unified School District
Project Access: Beach Drive, a private r.o.w.
Water Supply: Soquel Creek Water District
Sewage Disposal: Santa Cruz County Sanitation District

EXHIBIT D

PLANNING POLICIES

Zone District: PR (Parks, Recreation, and Open Space)
Special Designation: Scenic Resource Area
General Plan: O-R (Existing Parks and Recreation)
Special Community: Not located within a Coastal Special Community
Coastal Zone: Within Coastal Zone appeal jurisdiction
Within USL: Yes

PROJECT SUMMARY DESCRIPTION:

Proposal to construct a 4,281 square foot Single Family Dwelling, associated driveway apron, and rip-rap revetment. Requires a Coastal Development Permit; a Variance to reduce the required 30 foot front yard setback to about 10 feet and the required 30 foot sideyard setbacks to about 5 feet, and increase the two story maximum in the Urban area to 3 stories; a Residential Development Permit for a fence between 3' and 6' tall in the front yard setback; Preliminary Grading Approval for approximately 1,330 cubic yards of excavation and 1,170 cubic yards of revetment; a Geologic Report Review and a Soils Report Review.

DETAILED PROJECT DESCRIPTION:

The proposed single-family will be constructed along the face and toe of the coastal bluff immediately adjacent to the RB (Ocean Beach Residential) lots on Beach Drive. The proposed house consists of three stories, with the lowest level being non-habitable due to Federal Emergency Management Agency (FEMA) regulations applying to wave run up areas (Flood Zone-V) which require all habitable space to be raised above the 100-year wave run up zone. The house includes four bedrooms and four bathrooms, with a three-car garage on the 1st level and about 874 square feet of decking.

The construction will be of a "bunker" style design as recommended in the Soils and Engineering Geologic Report prepared for the site. A bunker style house is designed to withstand the impact of landslide debris on and around the structure. The house will be excavated into the bluff, with the rear and side walls functioning as retaining structures. Construction will be of reinforced concrete, specially designed glass to withstand impact by debris, and a foundation of drilled concrete piers founded in bedrock.

To protect the proposed dwelling from wave run-up, about 1,170 square feet of revetment is proposed to be placed around the driveway and the house. The revetment will consist of new rip-rap along the south and west sides of the driveway and house, from the toe of the bluff to the existing rip-rap along Beach Drive. The revetment requires a County issued grading permit and a separate Coastal Development permit issued by the California Coastal Commission.

EXHIBIT D

PROJECT SETTING:

The subject properties are located on the beach and the adjacent coastal bluff, in an area known as "Hidden Beach." The proposed homesite is located immediately adjacent to the end of Beach Drive along the coastal bluff, about 100 feet southeast of the existing house at 641 Beach Drive. The applicant proposes development a?a location that minimizes disturbance to ?he beach, even though an expanse of open beach is included on the property. The proposed envelope confines the development to the area adjacent to existing residential zoned lots on Beach Drive.

There are two vacant lots which have discretionary approval for bunker style houses very close to the project site on either side of the existing house at 641 Beach Drive, three parcels up coast (see Attachment 3 for locations).

The property contains no known habitats for endangered or threatened species. The vegetation on the bluff face consists of shrubs, one Cypress tree, and ice plant.

EXHIBIT

	Significant Or Potentially Significant impact	Less Than Significant With Mitigation Incorporation	Less Than Significant impact	No Impact

ENVIRONMEN[illegible]

A. Geology and Soils

Does the project have the potential *to:*

1.	Expose people or structures to potential adverse effects, including the risk of material loss, injury, or death involving:				
a.	Rupture of a known earthquake fault, as delineated on the most recent Alquist-Prioio Earthquake Fault Zoning Map issued by the State Geologist for the area or as identified by other substantial evidence?	—	—	—	✓
b.	Seismic ground shaking?	—	✓	—	—
c.	Seismic-related ground failure, including liquefaction?	—	✓	—	—

All of Santa Cruz County is subject to some hazard from earthquakes. A Geofechnical lnvestigafionby Haro, Kasunich, and Associates, dated January 2004 (hereafter referred to as "Geotechnical Report," excerpts, Attachment 6) and an Engineering Geologic Report prepared by Nielsen and Associates, dated January 2004 (hereafterreferred to as "Geologic Report," excerpis, Attachment 7) were prepared for the project. The reports concluded that seismic shaking, landslides and/or liquefaction are ihreats to the proposed development: but these threats can be minimized to an ordinary risk level by constructing the dwelling according to recommendations of the Geotechnical and Geologic Reports and by constructing in conformance with the Uniform Building Code. The type of *construction is very specific and requires unusual methods of strengthening the roof, walls, and foundation. Refer* io *the technical attachments and response 1(d) for details.*

d.	Landslides?	—	✓	—	—

The structure, at *the base of the coastal bluff, will be vulnerable to damage or destruction from the expected landsliding and slope failure characteristic of coastal bluffs. Consequently, the Geologic and Geotechnical Reports (Attachments 6 and 7) prepared for the proposed residence address these hazards and propose mitigations to reduce the risk landslides pose to the inhabitants and the public. The project soils engineer and geologist recommend constructing the dwelling as a reinforced concrete structure and flat roo? designed to withstand fhe impact and resultant dead loads of any expected landslides. To comply with these recommendations, a "bunker" style design is proposed wifh fhe roof constructed* of *reinforced concrete and the sides*

EXHIBIT D

	Significant Or Potentially Significant impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	NO impact

of the structure designed as retaining walls to prevent damage by landslide flows along the side yards.). The flat roof will be designed to avoid deflecting landslide debris onto neighboring properties by retaining most of the dead load of any landslide on the roof Moreover, the home will be built flush with the face of the slope with minimal projection above the slope to minimize impact to the rear of the dwelling. Finally, the foundation is designed to withstand slope failure and to mitigate for unconsolidated soils. The soils engineer recommends that all decks and exterior stairways be covered wifha 3 foot roof extension and that all side windows be designed to withstand landslide impacts and dead loads to minimize landslide hazards to occupants (see Geotechnical Response Letter from Haro, Kasunich, and Associates dated June 3, 2004, Attachment 8).

2. Subject people or improvements to damage from soil instability as a result of on- or off-site landslide, lateral spreading, to subsidence, liquefaction, or structural collapse? — ✓ — —

The project site is located in an area subject to soil instability due to landsliding and coastal erosion processes. The design of the structure along the recommendations of the Geotechnical and Engineering Geologic Reports requires the use of reinforced concrete, a flat roof, covered decks, and impact resistant side windows to minimize harm to inhabitants in the event of a landslide by allowing landslide debris to flow on top of and over the house without sustaining significant structural damage (As discussed in A.1.c. and d).

3. Develop land with a slope exceeding 30%? — ✓ — —

The proposed project site will be located on slopes of 70% and greater. However, the design of the structure will mitigate potential hazards resulting from slope instability and landslides (See responses 1. and 2., above),

4. Result in soil erosion or the substantial loss of topsoil? — — ✓ —

A detailed erosion control plan will be required to be submitted with the grading plans. Implementation of this plan, once approved, combined with only dry season grading (April 15 to October 15), will minimize the erosion impacts to a less than significant level.

5. Be located on expansive soil, as defined in Table 18-1-8 of the Uniform Building Code (1994), creating substantial risks to property? — — — ✓.

6. Place sewage disposal systems in areas dependent upon soils incapable *of* adequately supporting the use *of* septic

EXHIBIT D

	Significant Or Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
tanks, leach fields, or alternative waste water disposal systems?	___	___	___	✓
7. Result in Coastal cliff erosion?	___	✓	___	___

The proposed single-familydwelling will be required to be constructed in a manner that does not de-stabilize the coastal biuffbyexcavating from the top down, limiting the unsupported face to 5' at a time, and excavating only during the dry season (April 15 to October 15), all pursuant to the recommendations of the Geotechnical and Engineering Geologic reports.

B. Hydrology, Water Supply and Water Quality

Does the project have the potential to:

1. Place development within a 100-year flood hazard area?	___	✓	___	___

The house will be located on a beach at the base of a coastal bluff and will therefore be. exposed to large waves during significant storm events. The parcel is within Flood Zone-V, the Coastal High Hazard zone. Federal Emergency Management Agency (FEMA)flood hazard zone maps (attachment 9) indicate that the expected wave height during a 100 year storm could be up to 21 feet above mean sea level. The area of a structure below this height must be non-habitable and constructed of break-away partitions that will collapse during a storm event without damage to the rest of the structure. Prior to issuance of a building permif,certification from an licensed architect or civil engineer sfating compliance with all applicable FEMA regulations for dwellings subject to wave inundation. Prior to subfloor inspection, cerfificationby a registered professional engineer, architect, or surveyor will be required to verify that the elevation requirement is met. Prior to building permit final, an Elevation Certificatemust be completed to ensure compliance with flood elevation requirements.

A rip rap protection structure is proposed along the front of the home to provide partial protection from higher frequency storm events. The dimensions of the structure are approximately 75 feet long, 38 feet wide, and 10 feet high (above a 3 foot deep subsurface key). The rip rap will limit the frequency with which the driveway fill and the driveway itself will be damaged by storm waves.

2. Place development within the floodway resulting in impedance or redirection of flood flows?	___	___	___	✓
3. Be inundated by a seiche or tsunami?	___	✓	___	___

The location of the proposed dwelling fronting an open beach leaves little protection from a seiche or tsunami. However, the reinforced concrete construction and elevation above the FEMA 100-year wave run up level will minimize potential hazards for small-scale events. The

EXHIBIT D

	Significant or Potentially Significant impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	NO impact

house will be subject to the same risk as existing beach development in a larger event.

4.	Deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit, or a significant contribution to an existing net deficit in available supply, or a significant lowering of the local groundwater table?	___	___	___	✓
5.	Degrade a public or private water supply? (Including the contribution of urban Contaminants, nutrient enrichments, or other agricultural chemicals or seawater intrusion).	___	___	___	✓
6.	Degrade septic system functioning?	___	___	___	✓
7.	Alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner which could result in flooding, erosion, or siltation on or off-site?	___	✓	___	___

Construction of a new dwelling on an exposed bluff face will alter existing drainage patterns. To handle runoff from the top of the bluff, the Geotechnical Report recommends construction of a concrete V-ditch on top of the uppermost retaining wall to collect runoff and direct it to the proposed drainage system. This system will direct both the runoff from the bluff above and the dwelling onto the beach. At the building permit stage, both Environmental Planning and the Department of Public Works, Drainage Division, must approve the final drainage plan. Control of uphill drainage will reduce existing erosion problems ***OR*** *the bluff face from uphill development. A plan for maintenance of the drainage system will be required as* part *of the "Declaration of Geologic Hazards" to* ***be*** *recorded on the property deed.*

8.	Create or contribute runoff which would exceed the capacity of existing or planned storm water drainage systems, or create additional source(s) of polluted runoff?	___	___	___	✓
9.	Contribute to flood levels or erosion in natural water courses by discharges of newly collected runoff?	___	___	___	✓
10.	Otherwise substantially degrade water				

EXHIBIT D

	Significant Or Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
supply or quality?	___	___	___	✓ .

C. Biological Resources

Does the project have the potential to:

1.	Have an adverse effect on any species identified as a candidate, sensitive, or special status species, in local or regional plans, policies, or regulations, or by the California Department of Fish and Game, or U.S. Fish and Wildlife Service?	___	___	___	✓ .
2.	Have an adverse effect on a sensitive biotic community (riparian corridor), wetland, native grassland, special forests, intertidal zone, etc.)?	___	___	___	✓ .
3.	Interfere with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use *of* native or migratory wildlife nursery sites?	___	___	___	✓ .
4.	Produce night time lighting that will illuminate animal habitats?	___	___	___	✓ .
5.	Make a significant contribution to the reduction of the number of species of plants or animals?	___	___	___	✓ .
6.	Conflict with any local policies or ordinances protecting biological resources (such as the Significant Tree Protection Ordinance, Sensitive Habitat Ordinance, provisions of the Design Review ordinance protecting trees with trunk sizes of 6 inch diameters or greater)?	___	___	✓	___ .

No sensitive habitats will be impacted by the proposed development. One Cypress tree greater

EXHIBIT D

	Significant Or Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact

than 6" in diameter will be removed.

7. Conflict with the provisions of an adopted Habitat Conservation Pian, Biotic Conservation Easement, or other approved local, regional, or state habitat conservation plan?	—	—	—	✓

D. Energy and Natural Resources
Does the project have the potential to:

1. Affect or be affected by land designated as a Timber Resource by the General Pian?	—	—	—	✓
2. Affect or **be** affected by lands currently utilized for agriculture, or designated in the General Plan for agricultural use?	—	—	—	✓
3. Encourage activities which result in the use of large amounts of fuel, water, or energy, or use of these in a wasteful manner?	—	—	—	✓
4. Have a substantiai effect on the potentiai use, extraction, or depletion of a natural resource (i.e., minerals or energy resources)?	—	—	—	✓

E. Visual Resources and Aesthetics
Does the project have the potential to:

1. Have an adverse effect on a scenic resource, including visual obstruction of that resource?	—	✓	—	—

The home and associated rip-rap will be visible from the public beach. The existing public view consists of a beach and coastal bluff, with development on the coast side of Beach Drive to the immediate northwest of the project site and along the top of the bluff. The toe of the coastal

EXHIBIT

Significant Or Potentially Significant impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No impact

bluff, with one exception, is undeveloped for 1400 feet from 629 Beach Drive to the Via Gaviota seawall downcast. The exception is the dwelling at 641 Beach Drive, permitted in June 1999. The proposed home and rip-rap extends the development on the bluffside of Beach Drive by about 65 feet toward Via Gaviota and about 70 feet toward the beach from the edge of the coastal bluff Impacts to views from the beach northwes of the project site are limited because houses along the coast side of Beach Drive block views of the proposed house from the public beach, except during very low tides.

Currently there are seven vacant lots on the bluff side of Beach Drive. Each can be expected to be developed with a bunker style home in the future. However, given the permitted (but not yet built) homes on either side of 641 Beach Drive and the proposal to construct a dwelling on the adjacent lot, the visual effect of the proposed home, which is confined to the northwest corner of the parcel (Attachment 3), is an incremental extension of the existing row of homes. The development has been confined an envelope in the northwest corner the size of the neighboring lots in order avoid the additional visual impacts that would result from the alternative of constructing a house entirely on the beach.

The applicants have submitted a visual interpretation, showing how the proposed dwelling will appear on the site (attachment 1I). The proposed colors and materials will minimize impacts to the public viewshed by using colors that blend with the natural colors of the site, using exterior materials and roof covering that is natural in appearance and blends with the natural elements of the site, and the use of subdued trim and accent colors. A color version of attachment 1I is on file with the Planning Department.

Lastly, the project landscape plan is required to provide vegetation that softens the appearance of the rip-rap. The rip-rap itself will be planted and maintained with vegetation, or, if the engineer finds that plan to be infeasibie, vegetation will be provided behind the riprap. Rip-rap materials must be chosen to mafch the existing rip-rap on Beach Drive and/or the color of the beach sand.

In summary, this location creates substantially less visual impact than developing a house elsewhere on the property, as the house will appear as the end of a strip of development on Beach Drive once the vacant bluff toe lots are deveioped, and views oi the open beach to the southeast are preserved. The proposed location of the dwelling will complement existing and proposed bunker houses along Beach Drive and will be less visually obtrusive than building a new single-family dwelling located entirely on the beach. Further, the dwelling will be designed to blend with the subdued natural colors and natural forms of the cliff by using wood siding and earth-tone colors to complement the bluff face to mitigate the visual impact (see Urban Designer's comments, attachment 10). For these reasons, and with mitigation that limits exterior design and palette to blend into the natural setting, there will be a less than significant impact to the beach viewshed.

2. Substantially damage scenic resources, within a designated scenic corridor or public viewshed area including, but not limited to, trees, rock outcroppings,

EXHIBIT D

	Significant Or Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
and historic buildings?	___	___	J	___

As discussed in E.1. above, the proposed dwelling will be built into an existing coastal bluffthat is visible from a beach, However, the project has been designed and located to minimize visual impacts.

3. Degrade the existing visual character or quality of the site and its surroundings, including substantial change in topography or ground surface relief features, and/or development on a ridgeline?	___	✓	___	___

The proposed single-familydwelling will use wood siding and earth-toned stucco to minimize the visual impact on fhe beach (as discussed in E.1., above), and will not alter the coastal bluff surrounding the construction site.

4. Create a new source of light or glare which would adversely affect day or nighttime views in the area?	___	___	✓	___

A condition of approval for the Coastal Permit will require no exterior illumination of the beach and the use of non-glare windows. A lighting plan will be required prior to approval of the building permit, which must be reviewed and approved by the Planning Department prior to building permit issuance.

5. Destroy, cover, or modify any unique geologic or physical feature?	___	___	✓	___

The proposed residence will be notched into a coastal bluff, bui will only cover a small portion of the existing blufface. Therefore,the overall blufffeatures will remain unchanged.

F. Cultural Resources

Does the project have the potential to:

I - Cause an adverse change in the significance of a historical resource as defined in CEQA Guidelines 15064.5?	___	___	___	✓
2. Cause an adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines 15064.5?	___	___	___	J

EXHIBIT

	Significant Or Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	NO Impact
3. Disturb any human remains, including those interred outside of formal cemeteries?	___	___	___	✓
4. Directly or indirectly destroy a unique paleontological resource or site?	___	___	___	✓

G. Hazards and Hazardous Materials

Does the project have the potential to:

1. Create a significant hazard to the public or the environment as a result of the routine transport, storage, use, or disposal of hazardous materials, not including gasoline or other motorfuels?	___	___	___	✓
2. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	___	___	___	✓
3. Create a safety hazard for people residing or working in the project area as a result of dangers from aircraft using a public or private airport located within two miles of the project site?	___	___	___	✓
4. Expose people to electro-magnetic fields associated with electrical transmission lines?	___	___	___	✓
5. Create a potential fire hazard?	___	___	___	✓
6. Release bioengineered organisms or chemicals into the air outside of project buildings?	___	___	___	✓

H. Transportation/Traffic

Does the project have the potential to:

EXHIBIT D

	Significant Or Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	NO Impact
1. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	___	___	✓	___

The new dwelling will result in a minimal increase in traffic. Construction traffic will be limited to the hours of 8am to 5pm Monday through Friday (excluding national holidays) as a Condition of Approval to minimize traffic impacts for residents and beachgoers.

2. Cause an increase in parking demand which cannot be accommodated by existing parking facilities?	___	___	___	✓.
3. Increase hazards to motorists, bicyclists, or pedestrians?	___	___	___	✓.
4. Exceed, either individually (the project alone) or cumulatively (the project combined with other development), a level of service standard established by the county congestion management agency for designated intersections, roads or highways?	___	___	___	✓.

I. Noise

Does the project have the potential to:

1. Generate a permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	___	___	___	✓.
2. Expose people to noise levels in excess of standards established in the General Plan, or applicable standards of other agencies?	___	___	___	✓.
3. Generate a temporary or periodic				

EXHIBIT D

	Significant Or Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
increase in ambient noise levels in the project vicinity above levels existing without the project?	___	___	✓	___

During construction. neighboring properties will be subjected to temporary increases in noise. Construction will be confined to the hours of 8am to 5pm Monday through Friday (except national holidays) so the impact to residents and beachgoers will not be significant..

J. Air Quality

Does the project have the potential to:
(Where available, the significance criteria established by the MBUAPCD may be relied upon to make the following determinations).

1.	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	___	___	___	✓
2.	Conflict with or obstruct implementation of an adopted air quality plan?	___	___	___	✓
3.	Expose sensitive receptors to substantial pollutant concentrations?	___	___	___	✓
4.	Create objectionable odors affecting a substantial number of people?	___	___	___	✓

K. Public Services and Utilities

Does the project have the potential to:

1.	Result in the need for new or physically altered public facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
	a. Fire protection?	___	___	___	✓
	b. Police protection?	___	___	___	✓
	c. Schools?	___	___	___	✓

EXHIBIT

		Significant Or Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
d.	Parks or other recreational facilities?	___	___		✓
e.	Other public facilities: including the maintenance of roads?	___	___	___	✓
2"	Result in the need for construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	___	___	___	✓
3.	Result in the need for construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	___	___	___	✓
4.	Cause a violation of wastewater treatment standards of the Regional Water Quality Control Board?	___	___	___	✓
5.	Create a situation in which water supplies are inadequate to serve the project or provide fire protection?	___	___	___	✓
6.	Result in inadequate access for fire protection?	___	___	✓	___

The local fire district has accepted the proposed access and turnaround areas as adequate. Construction of a house in a hazard prone area will result in an incremental increase in the need for all emergency services. During and after a catastrophe, emergency crews may not be able to access the area due to debris and/or landslide material. To offset this, the applicants shall consult with the County Office of Emergency Services and the Aptos-La Selva Fire District to establish a contingency plan for emergency response affer a catastrophe.

7.	Make a significant contribution to a cumulative reduction of landfill capacity or ability to properly dispose of refuse?		___	✓	___

The Project will contribute to an incremental reduction of landfill capacity, but the addition will not be significant.

EXHIBIT

	Significant Or Potentially Significant Impact	Less Than Significant With Mitigation incorporation	Less Than Significant Impact	NO Impact
8. Result in a breach of federal, state, and local statutes and regulations related to solid waste management?	___	✓	___	___

Two important sewer lines run along the Beach Drive right-of-way and pass under the proposed driveway and riprap in front of the proposed dwelling. If not constructed properly, the rip-rap could negatively affect the sewer lines, potentially resulting in a sewage spill. To preclude this, prior to the public hearing the applicant must prepare detailed plans that satisfy all of the requirements of the Santa Cruz County Sanitation District, showing how the pipes will be protected during and after construction of the riprap. Once this plan is implemented, the additional measures will provide greater protection to the sewer lines than currently exists.

L. Land Use, Population, and Housing

Does the project have the potential to:

1. Conflict with any policy of the County adopted for the purpose of avoiding or mitigating an environmental effect?	___	✓	___	___

General Plan/LCP policy 6.2.15(a) requires that for all properties subject to storm wave inundation or beach or bluff erosion, technical reports must demonstrate that the hazards can be mitigated over the expected 100 year lifespan of the building The project meets this policy, see discussion under B.1., above.

General Plan/LCP policies **6.3.9** *(attachment* **73)** *requires that site grading be minimized by requiring foundations to be designed to minimize cuts and fills and requiring avoidance of particularly erodible areas, and General Plan/LCP policy 8.2.2 requires new development to be sited and designed to minimize grading, avoid or provide mitigations for geologic hazards and conform to the physical constraints and topography of the site. The project meets this policy in that:*

The "bunker" style construction recommended by the Geotechnical Report requires the rear of the house to be flush with the coastal bluff to serve as retaining walls to buttress the slope and to minimize landslide impact. This requires excavation into the bluff The proposed 1,330 cubic yards of grading is not excessive for a house constructed in this style, as the house size is not excessive in comparison with similar houses along the bluffside of Beach Drive. The proposed residence steps up the bluff to minimize excavation. While locating the structure on the beach would minimize grading, such a location would conflict with other General Plan Policies for preserving scenic viewsheds and public enjoyment of the beach (discussed below).

Finally, assuming that each of the seven currently undeveloped lots on the bluffside of Beach Drive will eventually be developed with bunker style houses, the County Geologist has determined that the cumulative effects of a number of excavations into the bluff on overall stability of that bluff will be insignificant as long as each operation is carried out per the guidelines of Geologic and Geotechnical reports as well as under the supervision of the report's authors, as outlined in the Geotechnical Report Review Letter, Attachment 12. See also the

EXHIBIT D

	Significant Or Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	NO impact

opinion of the project geologist that the bluff, after construction, will be of greater stability than it is now (Attachment 7).

General Plan/LCP policies 5.10.2 & 5.10.3 require that development in scenic areas ***be*** *evaluated against the context of their environment, utilize natural materials, blend with the area and integrate with the landform and that significant public vistas* ***be*** *protected from inappropriate structure design. The County's Urban Designer evaluated the proposed house for conformance with the County's Coastal Zone Design Criteria (County Code Section 13.20.130) and for compliance with the County's Design Review Ordinance (County Code Section 13.11). The proposed location and design of the dwelling has been determined by the Urban Designer to comply with all applicable provisions of these ordinances (attachment 10). See E.1., above, for further discussion of visual impacts of the house and the proposed rip-rap.*

General Plan/LCP policy 5.10.7 allows structures which would be visible from a public beach, where compatible with existing development. Subsequent to Design Review the proposed dwelling has been determined to be compatible with the existing development along Beach Drive in terms of bulk, mass, scale, color, and materials. Furthermore, the rip-rap will be required to use the same materials as the existing rip-rap along Beach Drive to minimize visual impacts. (See discussion under E.1., above).

General Plan/LCP policies 8.6.5 and 8.6.6 require that development be complementary with the natural environment and that the colors and materials chosen blend with the natural landforms. The proposed dwelling complies with this policy by incorporating wood siding and beige stucco to blend in with the colors of the bluff to the rear.

2. Conflict with any County Code regulation adopted for the purpose of avoiding or mitigating an environmental effect? — ✓ — —

Development on the subject parcel could potentially conflict with County Code Section 13.20.130(d)2ii, requiring that the design of permitted structures shall minimize visual intrusion, and shall incorporate materials and finishes which harmonize with the character of the area. To minimize potential conflicts, the architect proposes earth-tone colored stucco to match the bluff, subdued window and door trim, and horizontal wood siding with a natural finish as an accent. Furthermore, the height, bulk, and scale of the house will be consistent with the existing house at 641 Beach Drive and the two proposed bluff-toe residences approved under 99-0354.

3. Physically divide an established community? — — — ✓.

4. Have a potentially significant growth inducing effect, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads

	Significant or Potentially Significant Impact	Less Than Significant With Mitigation incorporation	Less Than Significant Impact	No Impact
or other infrastructure)?	—	—	—	✓
5. Displace substantial numbers of people, or amount of existing housing, necessitating the construction of replacement housing elsewhere?	—	—	—	✓

M. Non-Local **Approvals**

Does the project require approval of federal, state, or regional agencies? Yes ✓ No —.

Which agencies? A Coastal Development Permit issued by the California Coastal Commission is required for proposed revetment

N. Mandatory Findings **of** Significance

1. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant, animal, or natural community, or eliminate important examples of the major periods of California history or prehistory? Yes — No ✓.

2. Does the project have impacts that are individually limited, but cumulatively considerable (Accumulatively considerable means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, and the effects of reasonably foreseeable future projects which have entered the Environmental Review stage)? Yes — No ✓.

Two potential cumulative impacts result from the additional development:

First, the effects of developing the seven remaining vacant lots on Beach Drive with bunker houses was evaluated by the County Geologic in conjunction an earlier bunker style house permitted in 1999. He determined that houses designed and constructed according to the recommendations outlined in the Geotechnical and Engineering Geologic Reports for this project and the previously approved Coastal Permit 99-0354 should not have a negative cumulative impact on the bluff, as all houses will be designed as retaining structures and will act as

EXHIBIT D

shoreline protection structures at the base of the bluff, the stability of the bluff will increase. According to the project Geologist and Engineer, the overall effect of an increase in a number of points of stability should be beneficial, rather than detrimental, to the overall cliff area (See Atfachment 7).
Second, construction of an additional seven homes has the potential to further degrade an already impacted viewshed. The area between the end of Beach Drive and the beach in front of Via Gaviota, is uninterrupted by artificial elements. Construction of additional homes will add to the 'built' appearance of the landscape by filling in some of the remaining natural space on the bluff side of Beach Drive. However, existing residences on the coast side of Beach Drive already impact the viewshed and the proposed residence incorporates colors and materials chosen to blend in with the natural environment. Future homes will be required to meet provisions of both the County's Design Review Ordinance and the Coastal Zone Design Criteria to minimize impacts on the viewshed (see discussion under E.1. and L.1., above).

The location of the proposed homesite was chosen especially to minimize visual impacts to the beach by constructing the house adjacent to existing and proposed development on Beach Drive rather than further down the open beach. It will not extend development down coast more than the typical width of one Beach Drive lot. Once the other six vacant lots on the bluff side of Beach Drive are developed, the proposed home will appear as an extension of this development.

3. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? Yes— No ✓ .

EXHIBIT D

TECHNICAL REVIEW CHECKLIST	REQUIRED	COMPLETED*	N/A
APAC REVIEW		J	
ARCHAEOLOGIC REVIEW		J	
BIOTIC ASSESSMENT			✓
GEOLOGIC HAZARD ASSESSMENT			
GEOLOGIC REPORT	J	6/3/04	
RIPARIAN PRE-SITE		✓	
SEPTIC LOT CHECK		J	
SOILS REPORT	✓	6/3/04	
OTHER:			

*Attach summary and recommendation from completed reviews

List any other technical reports or information sources used in preparation of this initial study:

EXHIBIT D

ENVIRONMENTAL REVIEW ACTION

On the basis of this initial evaluation:

— I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

X I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described below have been added to the project. A MITIGATED NEGATIVE DECLARATION will be prepared.

— I find the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

Signature

9/21/04
Date

For: Ken Hart
Environmental Coordinator

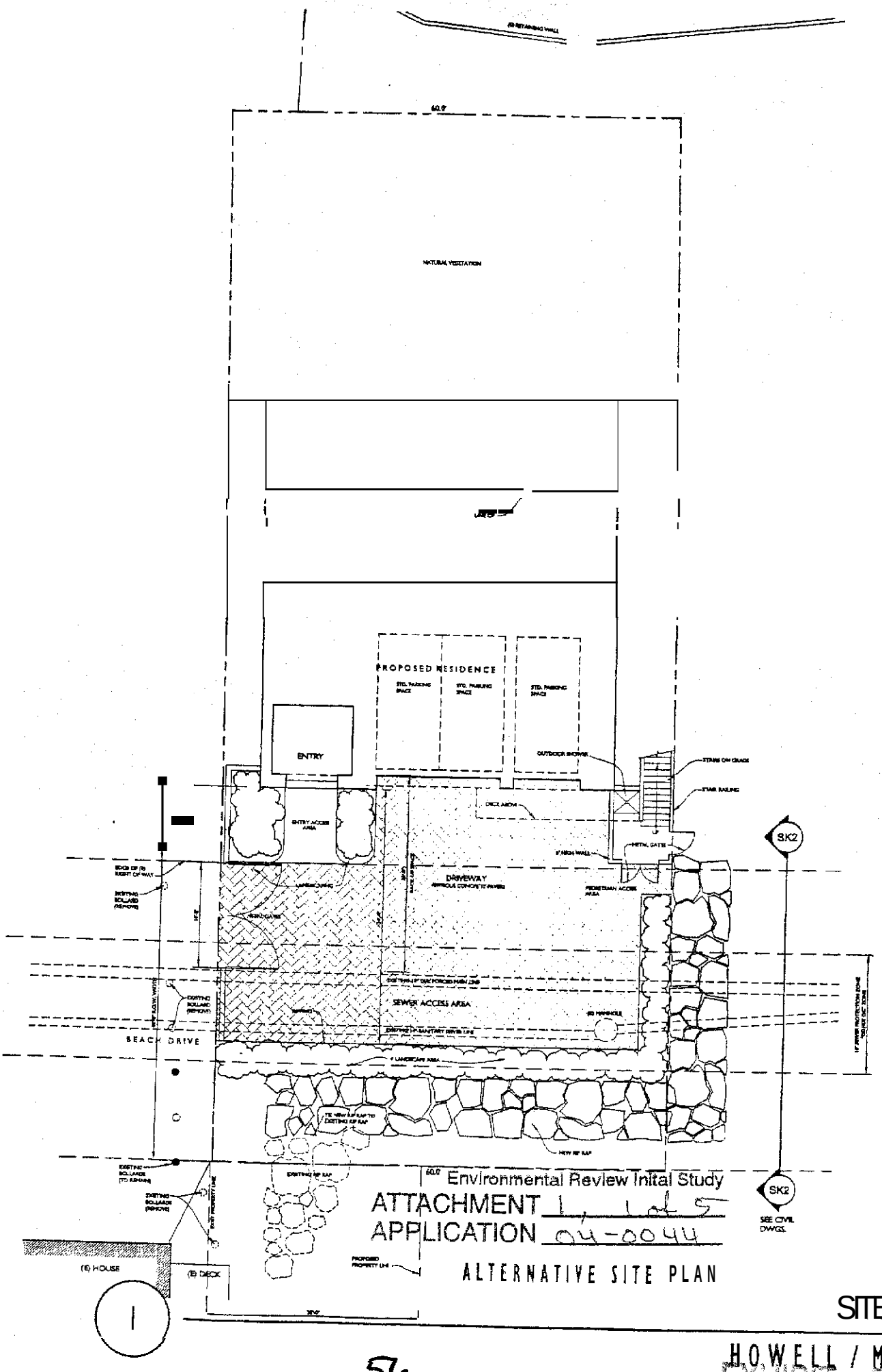
Attachments:

1. Project Plans
2. Location Map
3. Map of Zoning Districts
4. Map of Generai Plan Designations
5. Assessor's Parcel Map
6. Geotechnical Report prepared by Haro, Kasunich, and Associates dated January 2004 (Transmittal Letter, Conclusions, and Recommendations). Full report on file with the Planning Department.
7. Engineering Geoiogic Report prepared by Nielsen and Associates, dated January 2004 (Conclusion and Recommendations). Full report on file with the Planning Department.
8. Letter from Geotechnical Engineer, dated June 3, 2004
9. Federal Emergency Management Agency Flood Zone Map for grid 360 B.
10. Urban Designer's Comments, dated January 30, 2004
11. Photo-simulation of proposed residence wnen viewed from beach, color copy on file with Planning Department.
12. Geotechnical Report Review letter by Joe Hanna, County Geologist, dated September 3, 2004

The County Code and General Plan are available on the County's website at www.co.santa-cruz.ca.us.

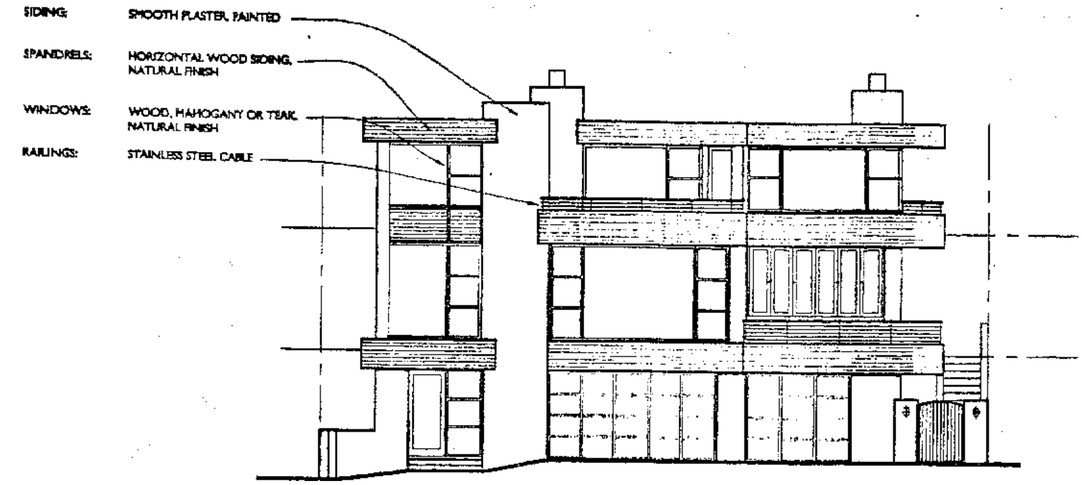
EXHIBIT D

EXHIBIT D

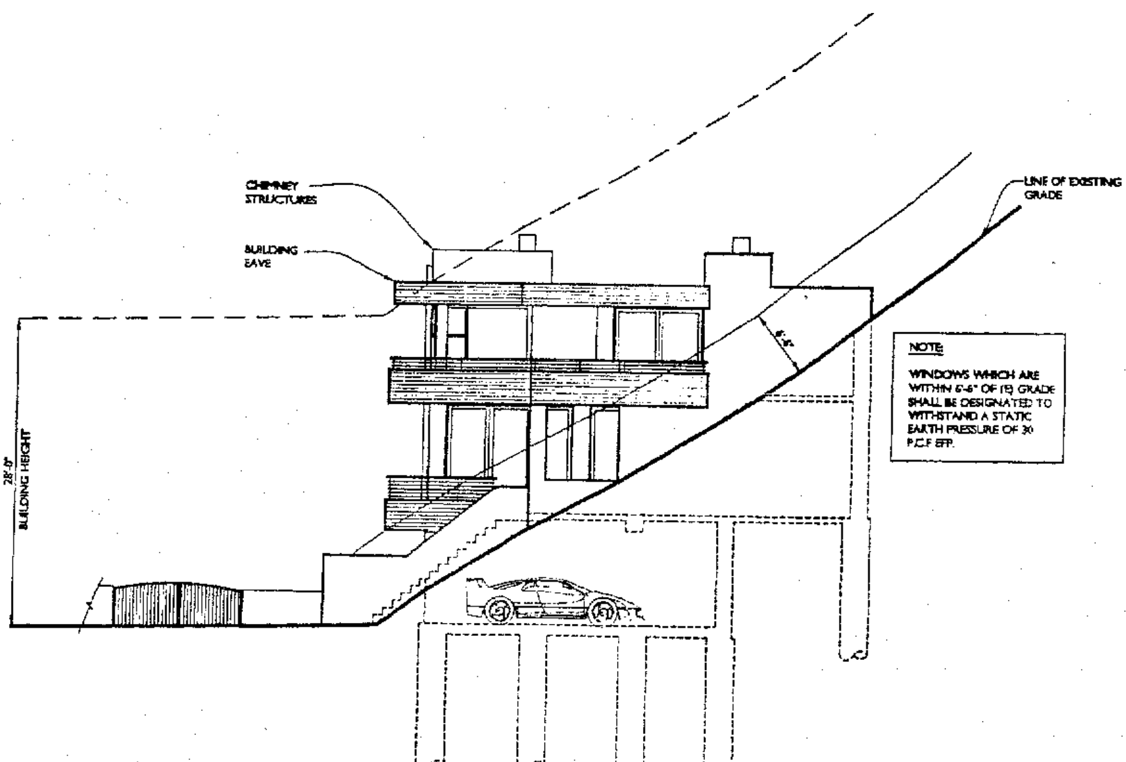


HOWELL / Mc

EXHIBIT D



SOUTH **ELEVATION**



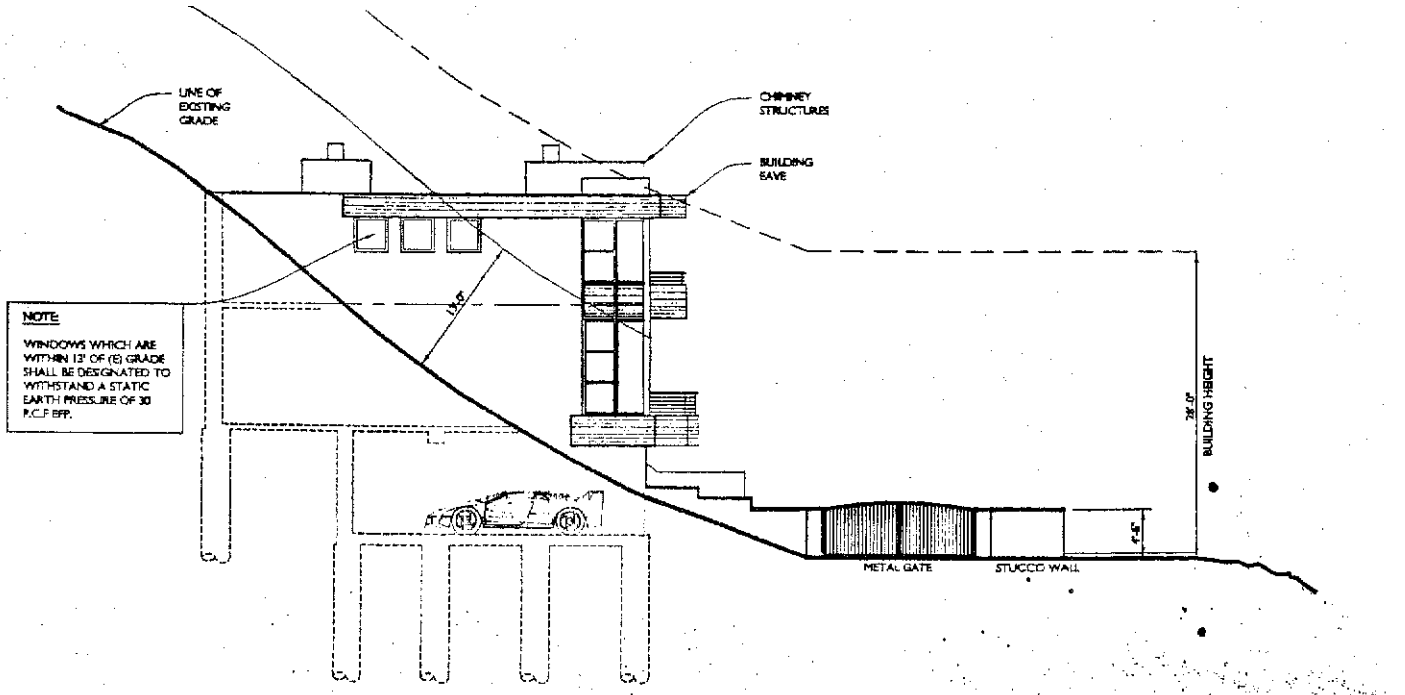
EAST ELEVATION

Environmental Review Inital Study
ATTACHMENT 1, 2 of 5
APPLICATION 04-0044

3

PREL

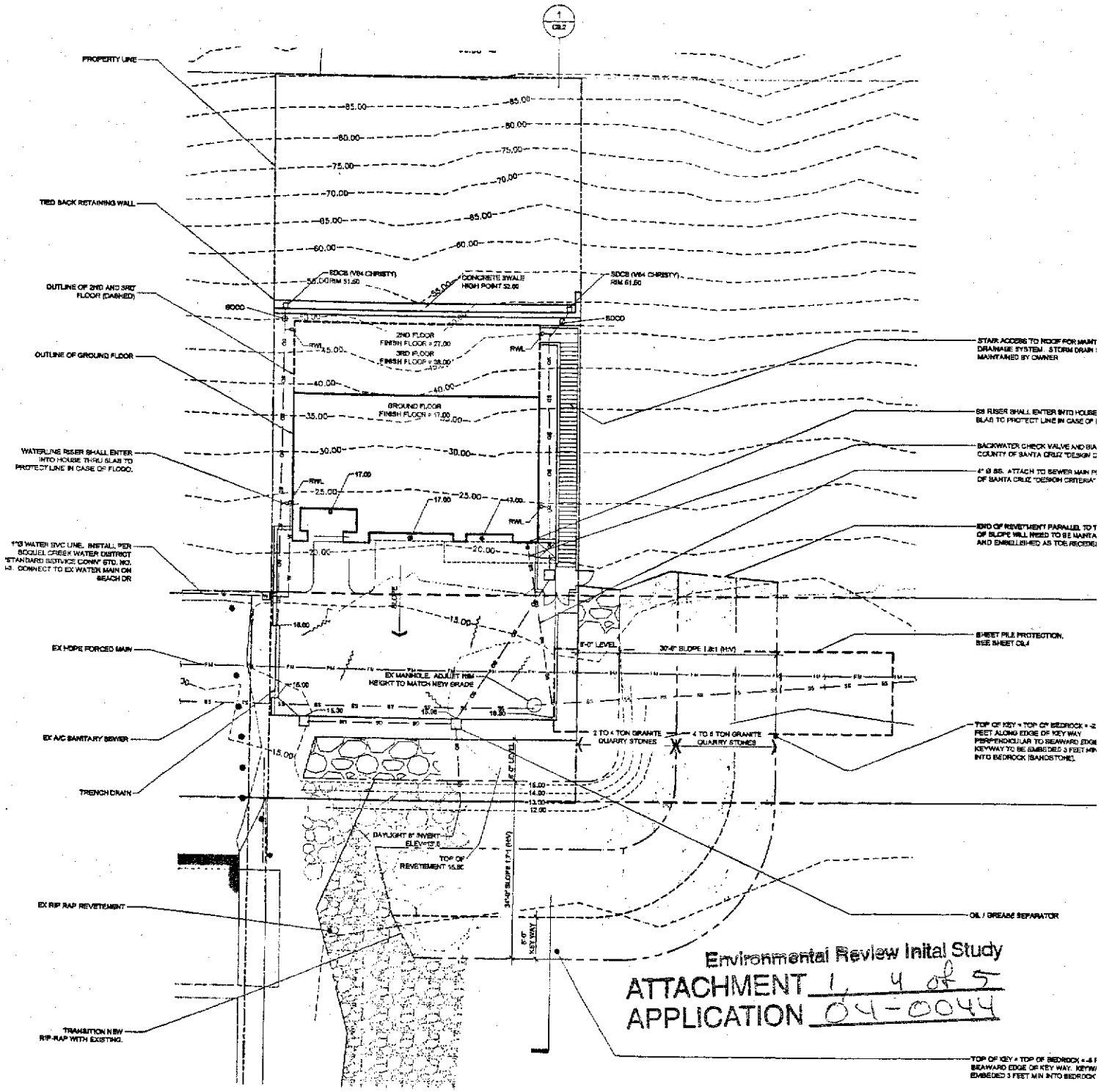
HOWELL / M



WEST ELEVATION

Environmental Review Inital Study
ATTACHMENT 1 3 of 5
APPLICATION 04-0044

EXHIBIT D

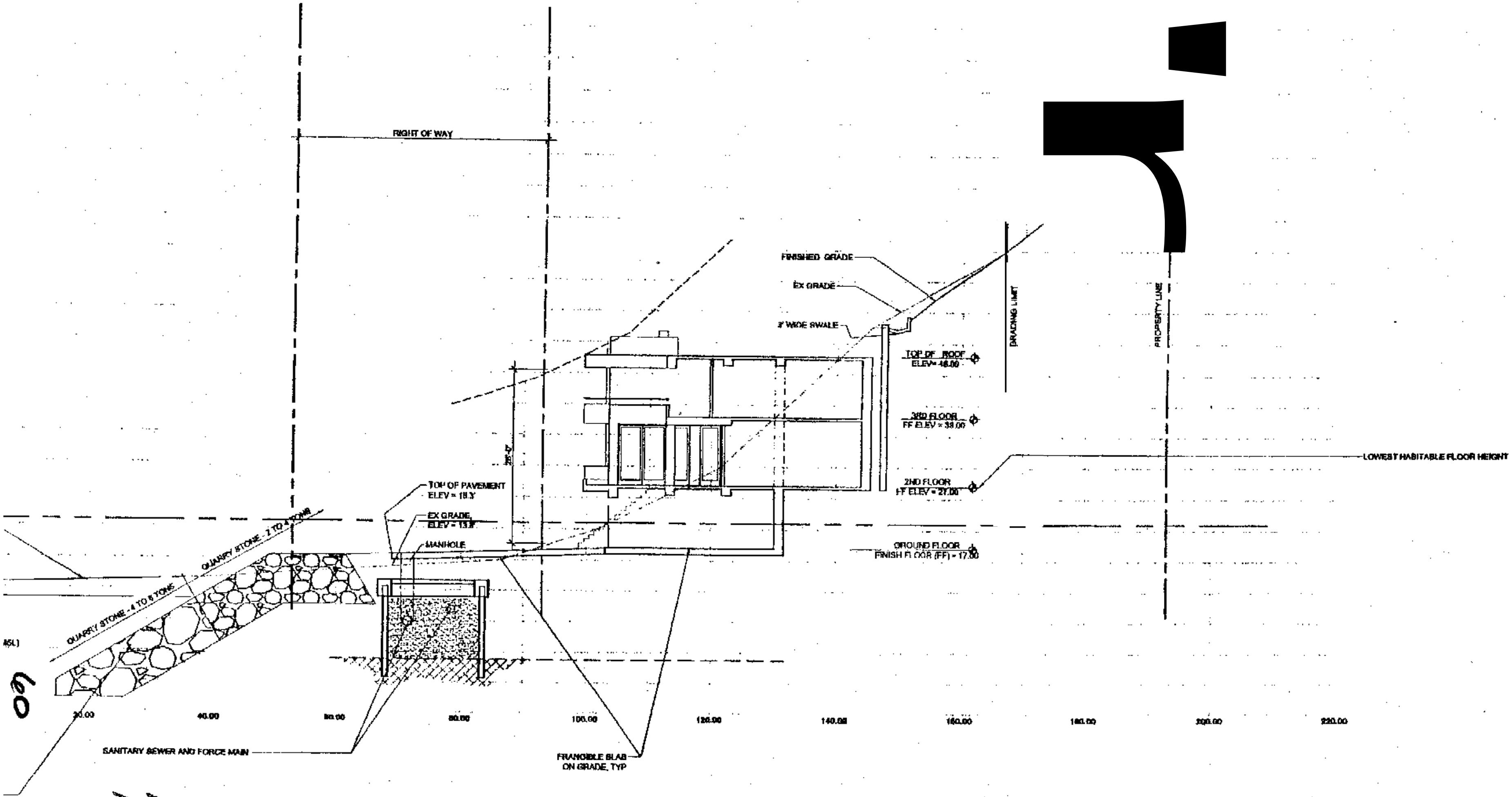


GRADING PLAN

SCALE: 1" = 10'

Environmental Review Inital Study
ATTACHMENT 1, 4 of 5
APPLICATION 04-0044

EXHIBIT D



SECTION
SCALE: 1" = 10'

(1)

PRELIMINARY
NOT FOR CONSTRUCTION

HOWELL/MCNEIL/DE MATTEI RESIDENCE
BEACH DRIVE, APTOS

PREPARED AT THE REQUEST OF
MARK DE MATTEI
1794 THE ALAMEDA
SAN JOSE CA 95126

Mesiti-Miller Engineering, Inc.
Civil and Structural Engineering

REV.	
1	Schematic Design
2	Planning Review Submittal
3	Planning Review Re-Submittal
4	Planning Review Re-Submittal

SECTIONS

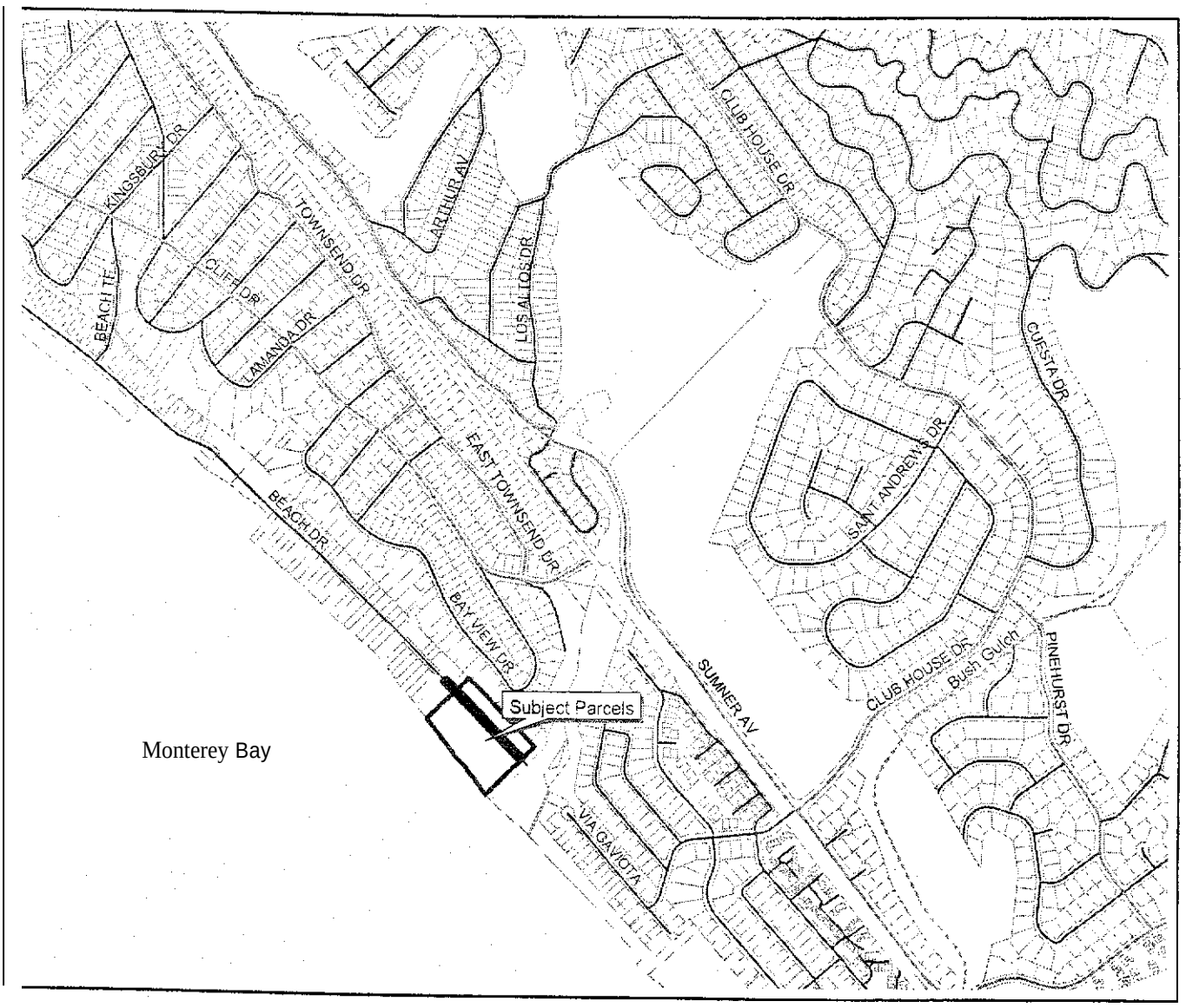
DRAWN BY:	RR
CHECKED BY:	DH
JOB NUMBER:	103347
SHEET	C9.2

Environmental Review Inital Study
ATTACHMENT 1, 5 of 5
APPLICATION 04-0044

EXHIBIT D

60

Location Map



0.5 0 0.5 Miles

Environmental Review Inital Study

ATTACHMENT 2

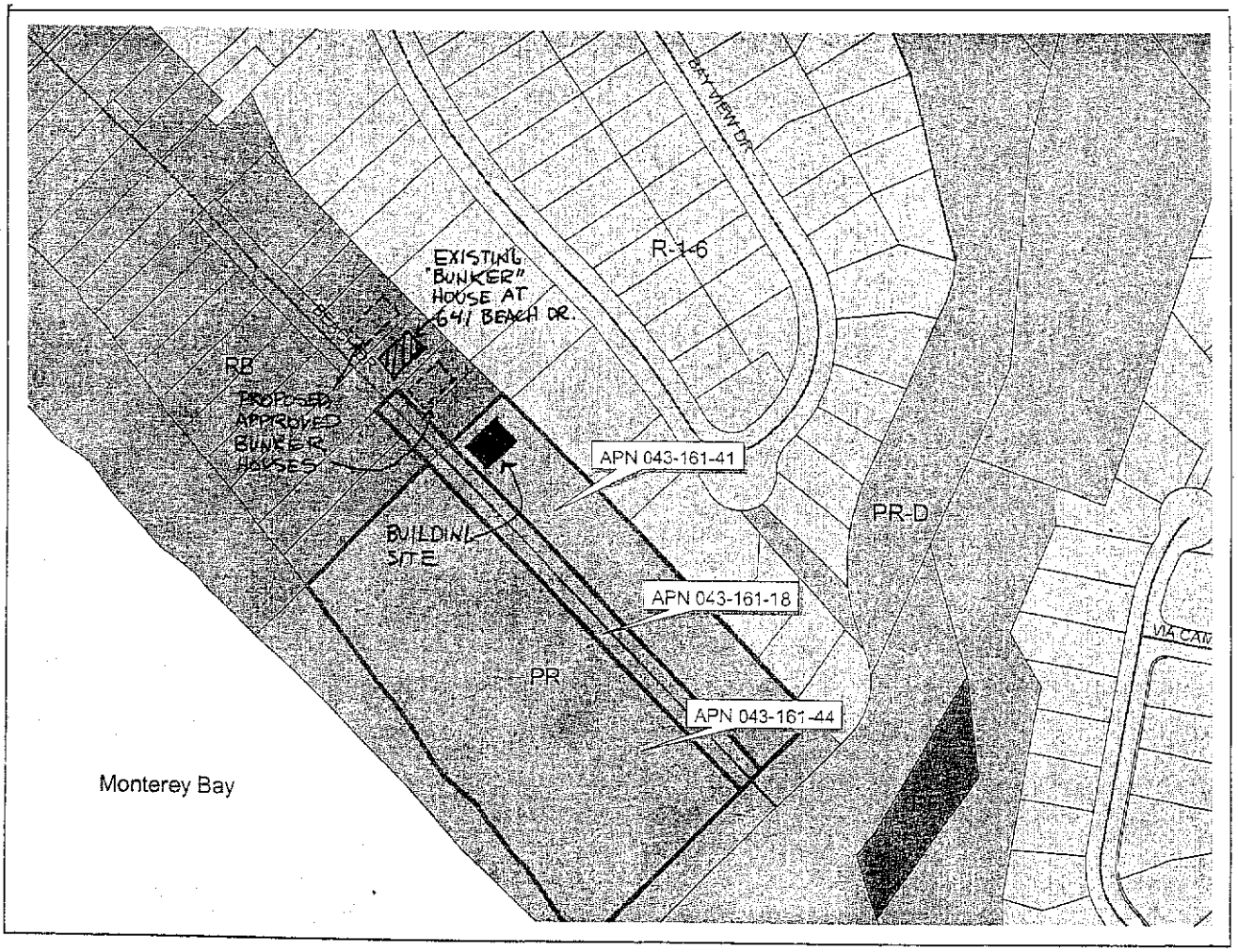
APPLICATION 04-0044

N

Map created by Santa Cruz County Planning Department
February 2004

EXHIBIT D

.Zoning Map



Legend

- APN 043-161-18, 41, 44
- Streets
- RB
- R-1-X
- PR
- PF

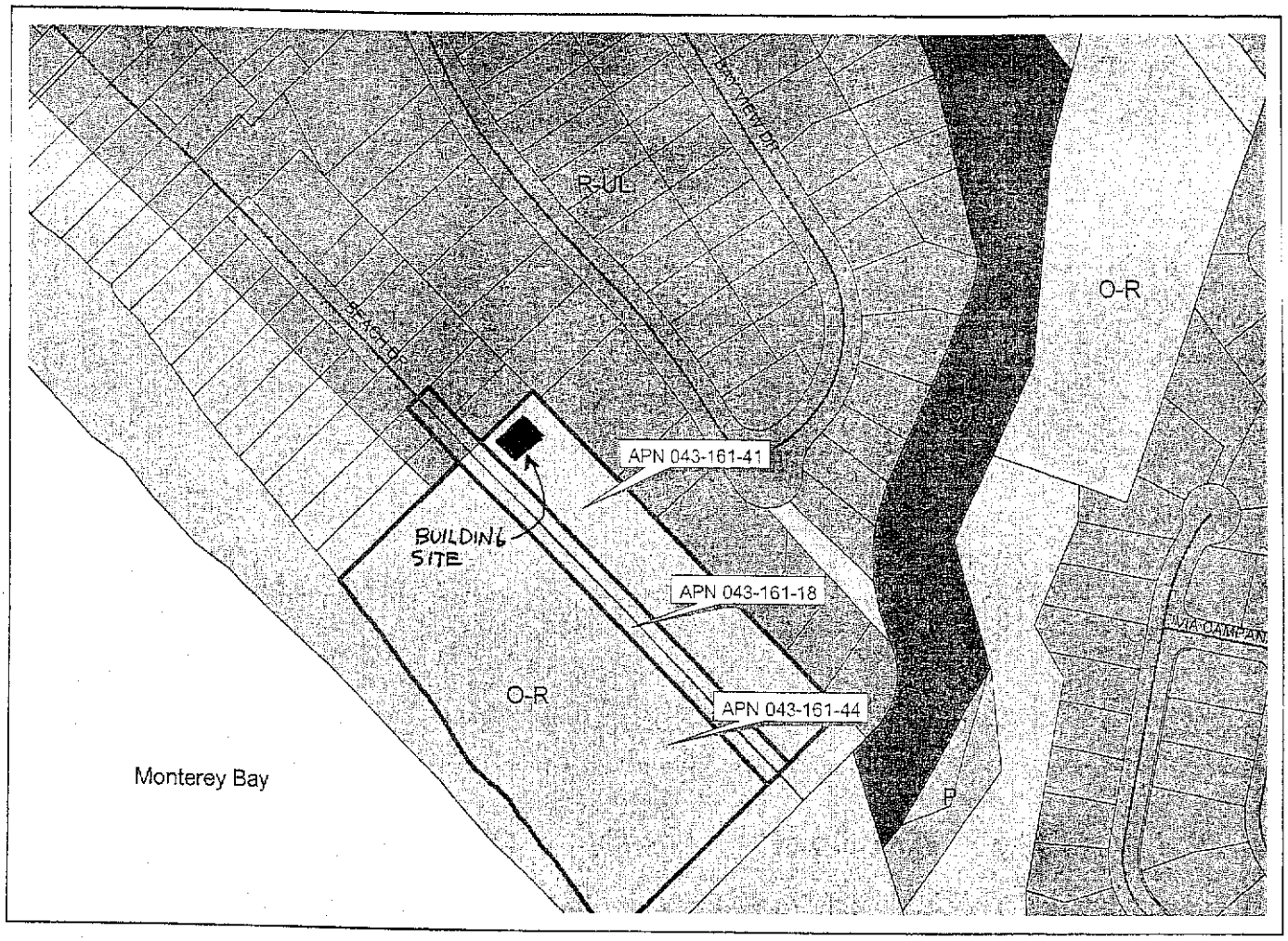
N

Environmental Review Inital Study
ATTACHMENT 3
APPLICATION 04-0044

'Map created by Santa Cruz County Planning Department: February 2004

EXHIBIT D

General Plan Map



500 0 500 1000 Feet

Legend

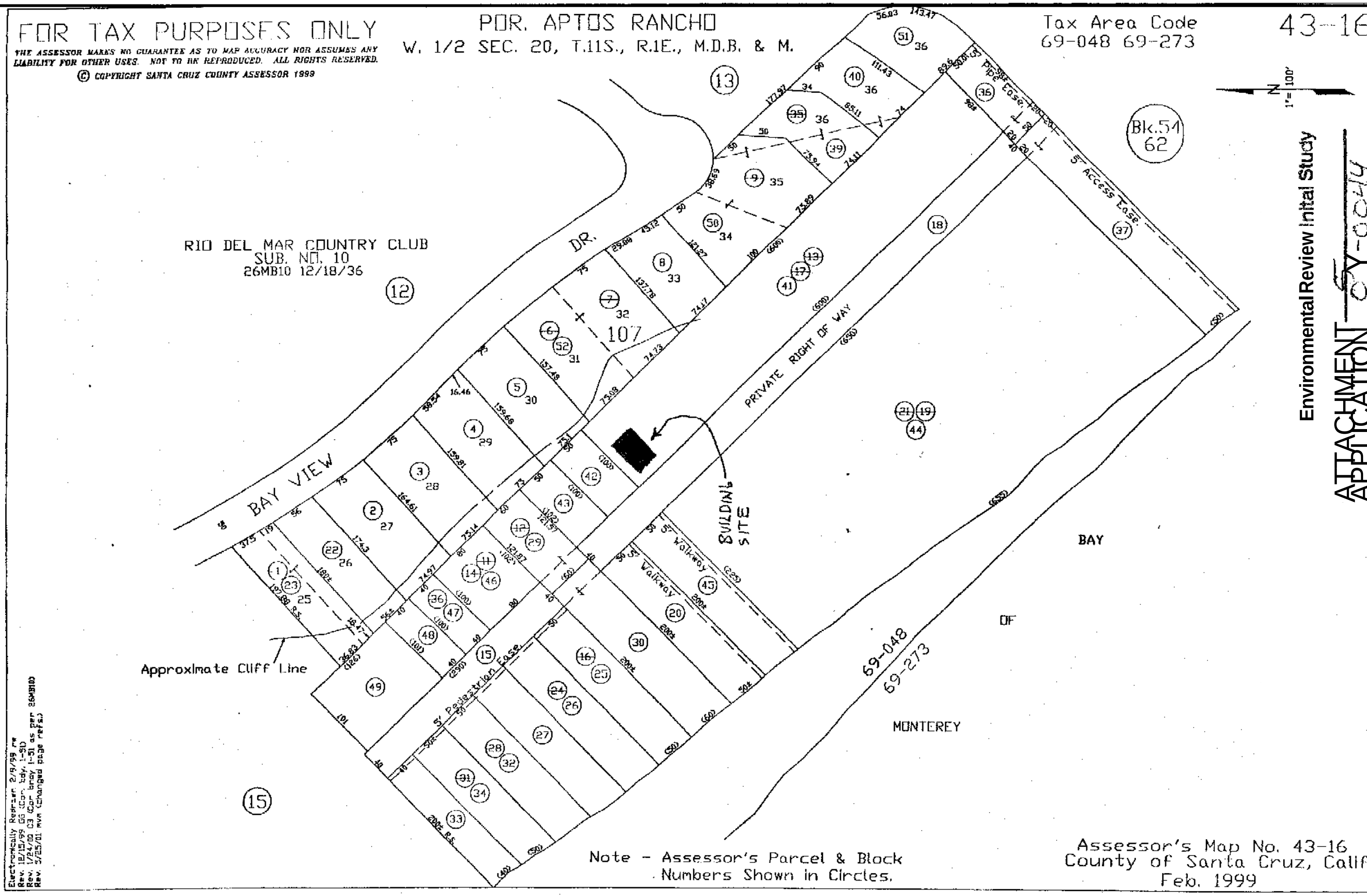
- APN 043-161-18, 41, 44
- APN boundaries
- Streets
- Residential - Urban Low Density
- Public Facilites
- Urban Open Space
- Parks and Recreation

N

Environmental Review Inital Study
ATTACHMENT 4
APPLICATION 04-0044

Map created by Santa Cruz County Planning Department: February 2004

EXHIBIT D



Environmental Review Inital Study

ATTACHMENT 5

APPLICATION 07-0044

EXHIBIT D

GEOTECHNICAL INVESTIGATION
Proposed Blufftoe Residence
for
APN 043-161-18, 41 & 44
BEACH DRIVE
Santa Cruz County, California

Prepared for
Mark DeMattei
San Jose, California

Environmental Review Initial Study
ATTACHMENT 6, 1 of 23
APPLICATION 04-0044

Prepared by
HARO, KASUNICH AND ASSOCIATES, INC.
Geotechnical & Coastal Engineers
Project No. SC8447
January 2004

EXHIBIT D

HARO, KASUNICH AND ASSOCIATES, INC.
CONSULTING GEOTECHNICAL & COASTAL ENGINEERS

Project No. SC8447
27 January 2004

MR. MARK DeMATTEI
% DeMattei Construction, Inc.
1794 The Alameda
San Jose, California 95126

Subject: Geotechnical investigation

Reference: Proposed Blufftoe Residence
APN 043-161-18, 41 & 44
End of Beach Drive
Santa Cruz County, California

Dear Mr. DeMattei:

In accordance with your authorization, we have performed a Geotechnical Investigation for the design and construction of a single family residence at the base of the coastal bluff located immediately beyond the southeast end of Beach Drive in the Rio Del Mar area of Santa Cruz County, California.

The proposed residence will be sei, into the hillside with the landward wall and a portion of the upcnast and downcoast sideyard walls constructed as retaining walls. The existing quarrystone revetment protecting the adjacent upcoast residences will be extended beyond the proposed building envelope in order to provide an access driveway and parking for the new residence.

The seaward portion of the proposed building envelope is underlain by a wave cut platform, infilled with beach sand and talus deposits. The landward portion of the building envelope will be cut into undisturbed native soil.

The residence will also be elevated above adjacent existing street grade in order to allow. the projected Federal Emergency Management Agency's (FEMA) coastal flooding *to* flow under the structure, In accordance with current FEMA regulations, the bottom of the lowest horizontal structural members supporting the lowest floor will be elevated above 21 feet NGVD, the local Ease Flood Elevation (BFE).

The primary geotechnical considerations at the site include the inevitable landsliding or slope failure of the coastai bluff above the proposed residence, embedding the foundation system into undisturbed native soil, wave impact loading of the seaward piers during the 100 year design storm event conditions, potential seismic shaking and mitigating erosion of ihe seaward and dcwnccast parcel boundaries. The proposed structure is required to be desicned and constructed to prevent lateral movement from simultaneous wind and

Environmental Review Inital Study
ATTACHMENT 6, 2 of 23
APPLICATION 04-0044 EXHIBIT D

116 EAST LAKE AVENUE • WATSONVILLE, CALIFORNIA 95076 • (831) 722-4175 • FAX (831) 722-3202

water loads in addition to waterborne, debris impact loading as outlined by the FEMA 2000 Coastal Construction Manual.

A quantitative slope stability analysis was performed to evaluate the probable mechanisms of slope failure, to develop potential debris loads and to determine lateral earth forces for design of the residential structure. Based upon our slope stability analysis and our work with the project structural engineers on other Beach Drive blufftoe projects we have delineated three types of slope failure and the associated impact loading as follows: arcuate failures within the blufftop terrace deposits; planar failures or translational sliding as the result of saturation and planar failures along the face of the bluff as a result of seismic shaking.

Eased upon our slope stability analysis and our experience working in the project area, it is our opinion the coastal bluff will continue to fail/recede whether the residence is constructed or not. The residence, with a tied-back retaining wall system will buttress the bottom *of* the slope forcing slope failures above the top of the retaining wall system. We recommend that the construction of tne tied-back retaining wails, forming the back of the proposed residence should begin at the top and be constructed as the excavation proceeds from the top to the bottom. The tied-back wall will act as both temporary shoring and a permanent retaining structure. During construction of the residence, it will also be necessary to temporarily shore the sideyard talus slopes.

We recommend the residence be constructed to withstand impact and debris loads from the inevitable slope failures. It is our opinion a concrete roof supported by a steel and concrete frame will be necessary to protect the residence. The *roof* system should be configured to minimize the deflection of landslide debris onto the adjacent upcoast parcel.

Due to the transition from infilled wave cut platform to undisturbed, dense native soil within the building envelope, it will be necessary to support the structure by a pier and grade beam foundation system. The piers should penetrate the beach sand and talus deposits. The seaward piers should be designed to withstand wave and waterborne debris impact loading per FEMA guidelines. This recommendation is limited to the drilled piers placed within the wave cut, historic beach platform, seaward of the undisturbed native slope as outlined in the Nielsen & Associates Geologic Cross Section

The Purisima Formaiion is described by geologic maps (Brabb, 1989) as a siltstone/sandstone. The Purisima Formation along the base of the bluff and below the open beach consists of very dense, silty sand with very little cementation. Pier drilling below the average groundwater elevation, about +2 feet NGVD, is problematic. At a minimum we anticipate full length casing will be needed to maintain pier excavation

integrity. Weighted drilling fluid may also need to be used with the casing to mitigate the potential for saturated sands flowing into the casing as the auger is withdrawn. Large diameter pier excavations, 3 to 5 feet in diameter, may be drilled with weighted drilling fluid and a surface conductor casing.

Although the extension of existing revetment will encompass the seaward and downcoast perimeters of the structure and surely reduce wave erosion at the project site it is our understanding that because the revetment is not maintained by a FEMA recognized entity with tax assessment capabilities such as a County Service Area (CSA) or a Geoiogic Hazards Assessment District (GHAD) the revetment cannot be used to assess the project design life. Therefore to achieve a 100-year design life for the structure we recommend the drilled piers placed within the wave cut beach platform be designed to accommodate wave and debris impacted forces as outlined in this report and drilled piers placed landward of the wave cut notch be embedded such that the bases are at least 10 feet horizontally from the surface of the projected erosion boundary. The geologic cross section of the site can be used to estimate the minimum pier depths. The drilled piers should penetrate any saturated, loose beach sands within the wave cut platform, mitigating the liquefaction potential regarding vertical bearing capacity at the site. This report also outlines an active pressure to be added *to* the design of the piers placed within the historic beach platform to accommodate potential lateral spreading of any loose saturated sands.

It is our opinion that the proposed development will have an ordinary level of risk from geologic hazards now existing at the site, (i.e geologic hazards having the potentiai to cause significant personal injury or structural damage), after the recommended mitigation measures are implemented.

The accompanying report presents our conclusions and recommendations, as well as the results of the geotechnical investigation on which they are based.

Environmental Review Inital Study
ATTACHMENT 6 4 of 23
APPLICATION 04-0044

EXHIBIT D

If you have any questions concerning the data or conclusions presented in this report, please call our office.

Very truly yours,

HARO, KASUNICH &ASSOCIATES, INC.

Rick L. Parks
G.E. 2603

REGISTERED PROFESSIONAL ENGINEER
RICK L. PARKS
No. 2603
Exp. 3-31-05
GEOTECHNICAL
STATE OF CALIFORNIA

RLP/sq

Copies: 1 to Addressee
1 to Nielsen &Associates; Attn: Mr. Hans Nielsen
1 to Mesiti-Miller Engineering, Inc. Attn: Mr. Dale Hensbee
4 to Richard Beale Land Use Planning: Attn: Ms. Betty *Cost*
1 to Thacher & Thompson Architects; Attn: Mr. Tom Thacher

Environmental Review Inital Study
ATTACHMENT 6, 5 of 23
APPLICATION 04-0044

EXHIBIT D

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

The residential structure is to be supported by drilled piers embedded into undisturbed sandstone bedrock. The Purisima Formation is described by geologic maps (Brabb, 2989) as a siltstone/sandstone. The Purisima formation along the base of the bluff and below the open beach consists of very dense, silty sand with very little cementation. Pier drilling below the average groundwater elevation, about +2 feet NGVD, is problematic. At a minimum we anticipate full length casing will be needed to maintain pier excavation integrity. Weighing drilling fluid may also need to be used with the casing to mitigate the Potential for saturated sands flowing into the casing as the auger is withdrawn. Large diameter pier excavations, 3 to 5 feet in diameter, may be drilled with weighted drilling fluid and a surface conductor casing,

The residential structure will be elevated above the FEMA Base Flood Elevation, 21 feet NGVD. We have developed wave impact pressures for the vertical structural elements and wave Slam pressures for horizontal structural elements placed below the BFE.

To protect the adjacent structures from defiected flood waters and reduce the potential for localized scour around the project piers, the number of vertical piers and the volume of horizontal bracing below the BFE should be minimized. The driveway and parking area for

the proposed residence will be situated upon about 18 feet of existing beach sand and landslide debris. The driveway will be contained on the seaward and downcoast ends by a proposed quarrystone revetment. For design of the driveway and parking area we recommend the proposed pavement section, unreinforced frangible concrete slab or paving blocks be supported by at least 3 feet of redensified soils compacted to at least 90 percent relative compaction. The top 12 inches of the redensified soils should be compacted to at least 95 percent relative compaction. As per FEMA guidelines the slab on grade will be displaced during a design storm event, allowing flood waters to flow through the foundation system with minimal obstruction and wave deflection. The parking platform is expected to be undermined, lost and replaced during the design life of the structure.

We recommend the residence be constructed to withstand impact and debris loads from the inevitable future slope failures. It is our opinion a concrete roof supported by a steel and concrete frame will be necessary to protect the residence. In order to prevent landslide debris from being deflected onto the adjacent upcoast and downcoast parcels, the roof should be flat.

Due to the transition from infilled wave cut platform to undisturbed, dense native soil within the buiiding envelope, it will be necessary to support the structure on a drilied pier foundation system. The seaward piers will penetrate the beach sand and fill materials.

Landward drilled piers should be embedded such that the bases are at least 10 feet horizontally from the surface of the undisturbed sandstone bluff face. The geologic cross section can be utilized to estimate the minimum pier depths The piers should be designed to mitigate hydrodynamic loading and the potential impact from waterborne debris.

During construcrion of the residence, it will be necessary to temporarily shore the excavated backslope as well as portions of the side yard talus slopes during construction.

If ail recommendations in the geologic and geotechnical reports are closely followed and properly implemented during design and construction, and maintained for the lifetime of the proposed residence, then in our opinion, the occupants within the residence should not be subject to risks from geologic hazards beyond the "Ordinary Risks Level," in the "Scale of Acceptable Risks" contained in the Appendix of this report.

The following recommendations should be used as guidelines for preparing project plans and specifications:

Site Grading

1. The geotechnical engineer should be notified at least four (4) working days prior to any site clearing or grading so that the work in the field can be coordinated with the grading contractor, and arrangements for testing and observation can be made. The

recommendations of this report are based on the assumption that the geotechnical engineer will perform the required testing and observation during grading and construction. It is the owner's responsibility to make the necessary arrangements for these required services,

2. Where referenced in this report, Percent Relative Compaction and Optimum Moisture Content shall be based on ASTM Test Designation D1557-78.

3. Areas to be graded should be cleared of all obstructions including loose fill, building foundations, trees not designated to remain, or other unsuitable material. Existing depressions or voids created during site clearing should be backfilled with engineered fill.

4. Cleared areas should then be stripped of organic-laden topsoil. Stripping depth should be from 2 to 4 inches. Actual depth of stripping should be determined in the field by the geotechnical engineer. Strippings should be wasted off-site or stockpiled for use in landscaped areas if desired,

5. Areas to receive engineered fill should be scarified to a depth of 6 inches, moisture conditioned, and compacted *to* at least 90 percent relative compaction. Portions of the site may need to be moisture conditioned to achieve a suitable moisture content for compaction. These areas may then be brought to design grade with engineered fill.

Environmental Review Initial Study
ATTACHMENT 6, 9 of 23
APPLICATION 04-0044

EXHIBIT D

6. Engineered till should be placed in thin lifts not exceeding 8 inches in loose thickness, moisture conditioned, and Compacted to at least 90 percent relative compaction. The upper 12 inches of driveway pavement and exterior slab subgrades should be compacted to at least 95 percent relative compaction. If engineered fill is utilized upslope of the residence *to* fill voids between the structure and the hillside, engineered fill requirements will be prepared on a specific basis during the final structural engineering design process.

The aggregate base below asphaltic pavement sections should likewise be compacted to at least 95 percent relative compaction,

7. The on-site soils generally appear suitable for use as engineered fill. Materials used for engineered fill should be free of organic material, and contain no rocks or clods greater than 6 inches in diameter, with no more than 15 percent larger than 4 inches.

8. We estimate shrinkage factors of about 20 percent for the on-site materials when used in engineered fills.

9. We recommend a maximum vertical height of five (5) feet for temporary cut slopes. We recommend top down construction for the bluff face retaining wall system.

10. Following grading, all exposed slopes should be planted as soon as possible with erosion-resistant vegetation.

11. After the earthwork operations have been completed and the geotechnical engineer has finished his observation *of* the work, no further earthwork operations shall be performed except with the approval of and under the observation of the geotechnical engineer.

Foundations

12. The residential proposed structure may be supported on a drilled pier foundation system. Drilled piers should penetrate talus deposits and beach sand and be embedded into undisturbed native soil.

Drilled Piers

13. Drilled piers should be at least 18 inches in diameter and be embedded at least 8 feet into undisturbed Purisima sandstone. Drilled piers should be embedded such that the bases are at least 10 feet horizontally from the surface of the undisturbed native soils as delineated on the Nielsen & Associates Geologic Cross Section.

14. Piers constructed in accordance with the above may be designed for an allowable end bearing capacity of 20 ksf for a minimum piers spacing of three (3) pier diameters or

greater. This value may be increased by one third for short term seismic and wind loading. The bottom of the excavation should be clear of debris. Due to the loose nature of the talus deposits and groundwater at about +2 feet, NGVD, we anticipate the pier holes will need to be cased, shielded or maintained with weighted drilling mud. If drilled piers are to be greater in diameter than two (2) feet, a settlement analysis should be performed.

15. For passive lateral resistance, all fill materials, beach sand and the top 1 foot of the cut Purisima Formation should be neglected in pier design. A horizontal setback of 5 feet between the top of the passive zone and the surface of the engineering geologist's undisturbed native slope boundary should also be maintained. From -1 foot to -4 feet below the aforementioned horizontai setback, a lateral passive lateral resistance of 500 pcf (efw) times 2 pier diameters may be used. Below -4 feet, a passive lateral resistance of 600 pcf (efw) times 3 pier diameters may be used for structural design.

16. To resist uplift forces, an allowable skin friction value of 315 psf of pier sidewall may be used within the Purisima formation. The uplift skin friction requires a horizontal setback of at least 5 feet from the face of the Purisirna sandstone delineated on the Geologic Cross-Section.

Environmenial Revlew Inital **Stud;**
ATTACHMENT 6 12 of 23
APPLICATION 04-0044

EXHIBIT

Wave Forces

17. The wave force potentiaily acting on the seaward piers is based upon water depth at the toe of the structure, i.e. the depth below the Stillwater Line (elevation 7.5 feet NGVD) to the historic scour line below. We calculated the maximum lateral wave impact pressures on the proposed pier system using criteria outlined in the FEMA 2000 Coastal Construction Manual. Specifically, we utilized Depth Limited Breaking Wave Methology to determine the lateral wave forces. We recommend a lateral wave force(F_{brkp}) of 4.5 kips per foot of pier diameter acting at +7.5 feet NGVD be used for the structural design of any piers placed within the historic wave cut beach platform. The wave impact force does not apply to drilled piers placed landward of the undisturbed native soil/back beach wave cut boundary. Our wave impact calculations are included in the Appendix of this report, see Figure 28.

To determine the forces imposed on the underside of the horizontal structural elements placed below the BFE, i.e. uplift pressures, we used the following technical notes from the U.S. Naval Civil Engineering Laboratory:

1) Uplift Pressures Under A Pier Deck From Water Waves dated December 1964; and

2) Lona Waves On A Sloping Beach And Wave Forces On A Pier Deck dated September 1964.

Environmental Review Inital Study
ATTACHMENT E 13 of 23
APPLICATION 04-0044

18. All horizontal structure elements situated below the BFE should be designed to resist wave slam (F_wV) caused by wave crests striking the underside of the horizontal structural elements. An uplift pressure of 350 psf should be used for the structural design.

Dynamic Loading - Waterborne Debris

19. During the design scour condition, the pier system supporting the residence may be impacted by waveborne debris during its design life of 100 year. Impact loading is a function of: The size, shape and weight of the object; the flood velocity; the velocity of the object compared to the flood velocity: and the duration of impact.

In addition to hydrodynamic loading, the pier foundation should be design to withstand the impact of an object traveling at 9.0 feet per second, weighing 1,000 pounds with a duration of impact of 0.3 seconds. The Debris Impact Load Formula (11.9) from the 2000 FEMA Coastal Construction Manual should be used to calculate the debris impact loading. We also recommend the impact loading be applied at 7.5 feet NGVD along the southeast and southwest perimeters of the proposed structure. We have included the FEMA section for debris impact calculation in the Appendix of this report, see Figures 29-32. We have also included the FEMA reference for Flood Load Combinations, see Figure 33.

Environmental Review Inital Study
ATTACHMENT 6 14 of 23
APPLICATION 04-0044

EXHIBIT

Retainins Walls and Lateral Pressures

20. Retaining walls should be designed to resist both lateral earth pressures and any additional surcharge loads. Cantilever or unrestrained walls up to 30 feet high should be designed to resist an active equivalent fluid pressure of 70 pcf for sloping backfills inclined up to 1:1 (horizontal to vertical). Restrained walls should be designed to resist uniformly applied rectangular wall pressures of 45H psf where H is the height of the wall. The configuration of the landward portion of the residence can have a dramatic effect on active and seismic surcharge loading. A stepped floor system at 1:1 (H:V) or less steep up the hillside will significantly reduce surcharge loading from above structure levels as well as break up the total height of the active zone into smaller components versus a 30 foot height active zone. We will work with the project architect and structural engineer *to* evaluate specific design scenarios in order to produce an efficient design.

21. Within the active zone, a seismic surcharge of 16H/ft should be utilized in design of the retaining walls. The resultant of the seismic loading should act at 0.6H, where H is the height of the wall.

22. In addition, the walls should be designed for any adjacent live or dead loads which will exert a force on them.

23. Retaining walls that act as interior house walls should be thoroughly waterproofed.

EXHIBIT D

24. For fully drained conditions as delineated above, we recommend a geotextile drainage blanket equivalent to Miradrain 6000 be used.

25. If engineered fill is utilized upslope of the residence to fill voids between the structure and the hillside, engineered fill requirements will be prepared on a specific basis during the final structural engineering design process.

Tieback Anchors

26. For design of the tieback anchors, the pressure grouted anchor bulb (bonded zone) should be at least 20 feet from the face of the retaining wall.

27. Tieback loading is dependent upon anchor tendon strength. The small diameter anchor shafts should be designed for tension in the direction of the axis of the anchor.

28. Grouted tieback anchors should have a minimum overburden cover of at least 25 feet.

29. **A** working shaft bond friction of 2,500 psf between soil and non-pressure groured anchor diameters may be considered for design of small diameter (4 to 8 inch) tieback anchors where building envelope/property boundaries allow the use of a longer bonded zone tieback

30. The maximum bond strength/design load should not exceed 100,000 pounds.

31. The tieback anchors may be installed up to a maximum angle of 20 degrees from horizontai.

32. Upon completion *of* the backfill behind the walls, all tiebacks should permanently stressed to 60 percent of their design load or as directed by the project structural engineer. In addition, all tiebacks must be tested by the contractor in the presence of the geotechnical engineer to 100 percent of their design load. Any tiebacks that fail during testing must be replaced and re-tested by the contractor.

33. All tiedback anchor systems must be corrosion protected and reviewed by the geotechnical engineer before the contractor purchases and installs them.

Landslide Debris - Dead Loads

34. Landslide debris may pile up on the flat roof with the pile having slopes on the sides and front *of* about 1.5:1 (horizontal to vertical).

35. The future upcoast side yard may only be 10 feet wide (including neighbor's sideyard setback). This narrow space may fill up with potential slide material which comes *to* rest at a 1.5:1 gradient. This failure condition may require the sidewalls of the house to

act as retaining structures right after failure and before clean up. We recommend designing the sidewalls and windows to accommodate static active earth pressures of 30 pcf for a non-restrained condition or 19 5 H psf/ft if the floor and roof between the sidewalls act to restrain the walls.

Debris Flow-Impact Force Criteria

36. Debris impact loads and design scenarios are outlined at the end of the Slope Stability section of this report.

37. We recommend all decks have an overhang of at least three (3) feet in order to provide refuge from a potential slope failure event.

Revetment Construction **Recommendations**

38. It is our understanding the existing quarrystone revetment along the southeast end of Beach Drive will be extended downcoast to protect the proposed residence from coastal erosion. The top of existing revetment is at about elevation +15 feet NGVD. A Conceptual Revetment Plan and Cross-Section, see Figures 26 and 27 are included in this report showing the approximate footprint and configuration of the proposed revetment. To minimize maintenance of the proposed revetment we recommend the toe of the revetment be embedded at least three feet into the Purisima Formation or below the historic scour platform as deiineated by the project geologist. The projected Base Flood Elevation (BFE)

Environmental Review Inital Study
ATTACHMENT E 18 of 23
APPLICATION 04-0044

EXHIBIT I

at the project site is +21 feet NGVD or six feet higher then the top of the proposed revetment extension and as such the revetment can be expected to be overtopped by wave run up The seaward toe of the revetment keyway should be embedded at least 3 feet into the sandstone bedrock platform. We anticipate the keyway will extend down from -5 feet NGVD (the surface of the bedrock beach platform), to at least -8 Feet NGVD for a minimum embedment of 3 feet into sandstone. The revetment above the keyway should be sloped at 1.7:1 (horizontal to vertical) or less steep. The upcoast end of the new keyway should mate with the seaward projection of the adjacent revetment toe. The downcoast end of the proposed revetment will need to be maintained as the adjacent blufftoe recedes. The sewer lines underlying the revetment should be protected by a concrete cover as designed by the project structural engineers.

Revetment Cover Quarrystone Sizing

39. Using a design incident or breaking wave determined from the Geologic Cross Section and a Stillwater Level of +7.5 feet NGVD, we then calculated a minimum revetment quarrystone size using the Hudson Breakwater Design methods for reconstruction of the quarrystone revetment.

The quarrystone size output sheet for the base of the revetment is included in the Appendix of this report, Figure 25.

We recommend 4 to 6 ton quarrystones be used in the revetment keyway and revetment body up to elevation +8 feet NGVD, with the largest delivered quarrystones placed within the keyway. Above +8 feet NGVD, we recommend 2 to 4 ton quarrystones be used. The cover rock should be at least 2 quarrystones thick.

Import quarrystones should consist of granite, basalt or other types of competent, non-reactive igneous or metamorphic rock. Limestone, dolomite or marble should not be used.

40. The keyway and reconstructed revetment should be stacked upon Mirafi 700X or equivalent geotextile fabric.

Quarrystones should be individually placed with at least three points of contact and minimum void space.

Revetment Maintenance

41. To receive the full benefit from the revetment construction, the revetment will need to be maintained. Maintenance will include re-stacking of quarrystones that migrate seaward to maintain the recommended finished slope gradient as well as maintaining the upcoast perimeter at the adjacent property boundary and maintaining the downcoast end as the adjacent blufftoe erodes.

Revetment Construction Observation

42. During reconstruction of the revetment, the project geotechnical engineer should perform periodic field observations to verify the depth of keyway embedment and rock placement. The rock size placement of geotextile fabric, revetment height and finish slope gradients should also be verified by the project geotechnical engineer.

Lateral Spreading Active Force

43. The foundation system should be designed to withstand an active lateral force of 30 pcf (efw) to accommodate any future lateral spreading of the beach sediments above the historic sour line. The potential lateral spreading will extend from the historic scour line up to an elevation of maximum sand accretion as determined by the project engineering geologist.

Parking Slab on Grade

44. As outlined in the FEMA Coastal Construction Manual, see Figures 34 to 36, parking may be facilitated by use of a unreinforced slab, supported directly on the soil present at the site.

45. It is our opinion paving stones or asphaltic pavement may be used as an alternative to the unreinforced frangible concrete driveway section outlined by FEMA.

46. For design of the oriveway parking area we recommend the proposed pavement section, unreinforced frangible concrete slab or paving blocks be supported by at least 3 feet of 9redensified soiis compacted to at least 90 percent relative compaction. The top 12 inches of the redensified soils should be compacted to at least 95 percent relative compaction. As per FEMA guidelines, the slab on grade will be displaced during a design storm event, allowing flood waters to flow through the foundation system with minimal obstruction and wave deflection. The parking platform is expected to be undermined, lost and replaced during the design life of the structure.

Site Drainage

47. An erosion control and drainage plan should be preparec or the projec The plan should be reviewed and approved by the project geotechnical engineer and engineering geologist. Because of the potential slope instability at the site, erosion control and drainage systems will need to be maintained, repaired and replaced in the future after instability occurs.

48. We recommend a concrete v-ditch be constructed at the top of the uppermost retaining wail that will collect surface water which flows downslope as a result of direct rainfall or surface water spilling onto the top of the bluff from above.

Environmental Review Inital Stud
ATTACHMENT 6 - 23
APPLICATION 04-0044

86

EXHIBIT D

Plan Review, Construction Observation and Testing

49. Our firm should be provided the opportunity for a general review of the final project plans prior to construction so that our geotechnical recommendations may be properly interpreted and implemented. If our firm is not accorded the opportunity of making the recommended review, we can assume no responsibility for misinterpretation of our recommendations. We recommend that our office review the project plans prior to submittal to public agencies, to expedite project review. The recommendations presented in this report require our review of final plans and specifications prior to construction and upon our observation and, where necessary, testing of the earthwork and foundation excavations. Observation of grading and foundation excavations allows anticipated soil conditions to be correlated to those actually encountered in the field during construction.

EXHIBIT D

NIELSEN and ASSOCIATES

ENGINEERING GEOLOGY AND COASTAL CONSULTING

GEOLOGIC INVESTIGATION
for a
PROPOSED SINGLE FAMILY HOMESITE

Beach Drive, Rio Del Mar*
Assessors Parcel Numbers 043-162-18,41,44
Santa Cruz County, California

Job No. SCr-1053-G

January 2004

* ACTUAL APN - 43-161-18,41,44

Environmental Review Inital Study
ATTACHMENT 7 1 of 8
APPLICATION 04-0044

EXHIBIT D

The 1976 aerial photos are very clear and provide very interesting information about the area around the property. The debris wedge is very visible and quite extensive in the area of the property extending to the creek valley to the southeast, this is the open beach area immediately southeast of the end of Beach Drive. The debris wedge at the toe of the hillside at the property extends to about the middle to the last house on Beach Drive, a distance of abour 50 feet out from what is the current toe of the bluff, In addition, the debris wedge is elevated above the beach quite a ways; we estimate that it is elevated about eight feet.

In 1982 and 1986, the photos show landslide scars in the upper third of the bluff and just down coast of the end of Beach Drive. Our field observations of landsliding in the Beach Drive area during the 1982 to 1998 time periods suggest that the upper bluff is most prone to failure. Most of the landslides are less than 10 feet thick causing less than 20 feet of bluff recession at the top of the bluff.

In addition, the 1986 photos show the results of extensive beach erosion that occurred in the winter of 1982-83 during a major El Niño event. The debris wedge that was present in the 1976 photos has been completely removed by erosion by ocean waves. The toe of the bluff is essentially coincident with the back edge of the turnaround at the end of Beach Drive; the approximate boundary of the turnaround is discernable on the topographic map, Plate 1.

SLOPE INSTABILITY HAZARDS

To investigate historical landsliding and the potential for instability on the slope at the subject property, we: 1) examined 14 sets of aerial photographs as discussed in the previous section, 2) inspected the hillside, and *3)* logged three exploratory borings drilled on the hillside

There have been numerous landslides on the coastal bluff along Beach Drive. Many have occurred during high intensity rainfall such as in January 1982, and several more occurred during the winters of 1996-1997 and 1997-1998 during high intensity rainfall. Historical landslides have typically been less than five feet deep, been highly fluidized, and traveled rapidly down the hillside. The boundary of one of the 1998 landslides lies about 120 feet west of the subject property. In addition, during previous field work in this area in May 2000, we noted two landslide scars above and east of the subject property. These landslides probably occurred during the winter of 2000. It is clear that the hillside at the subject property is susceptible to landsliding, particularly during periods of significant rainfall.

Landslides in the Beach Drive area have damaged several homes. In some rare cases the homes were entirely destroyed, in others the rear walls were damaged and the lower levels of the homes inundated with mud. In February 1998, eight properties on Beach Drive were "red tagged" as unsafe to occupy by the Santa **Cruz** County Planning Department. In addition, there was a large failure of the debris wedge slope on a nearby up coast property in February 1998. **This** landslide involved the upper six feet of earth materials and was caused by intense rainfall.

This failure illustrates the potentially unstable nature of the colluvium/landslide deposit at the property.

The story of Bill Crowley provides a stark example of what can happen at unprotected homes built at the base of the steep coastal bluffs on Beach Drive. During the January 4, 1982 storm, a slope failure occurred on the bluff face and the mass hit Bill Crowley's three story home pushing it into the middle of Beach Drive, and causing it to partially collapse. Crowley was sitting in a third story room when the slide plowed into his home. When the house and slide mass came to rest, he was on the ground floor sitting on top of his stove. He was very lucky and suffered only facial cuts. This illustrates the need to protect homes built on the lower part of the coastal bluff from potential landslides hazards.

To evaluate the potential degrees of landsliding on the hillside, we understand that a slope stability analysis is being conducted by the project geotechnical engineering firm of Haro, Kasunich and Associates, The analysis will be presented in their geotechnical report for this property.

It is our understanding that the slope stability analysis suggests two types of failures on the hillside, one associated with saturation due to rainfall and another due to severe ground shaking generated by an earthquake. The latter event is much larger than the former and suggests a formidable volume of debris cascading down on the proposed homesite in the event of its occurrence. For details on the slope stability analysis, please refer to the geotechnical report by Haro, Kasunich and Associates.

In our opinion, slope instability is the greatest hazard at the subject property since the steep bluffs of Rio Del Mar have experienced numerous landslides over the past 65 years. The proposed homesite is located in an area directly subject to slope instability hazards. Following are recommendations to mitigate iandsiide hazards at the homesite.

It is our opinion that the home be excavated into the hillside such that the rear roof eave is nearly coincident with the ground surface, This will allow landslide debris to cascade over the home. The reason for suggesting this type of design is the massive size of the seismically generated landslides above the home. In this design, the rear and side walls of the house act as engineered retaining walls. And the roof of the home must be designed for impacts and loads suggested by the slope stability analysis.

The excavations should be prevented from failing into adjacent properties and from affecting instability on the hillside above them, It is anticipated that appropriately engineered temporary shoring will be needed to support the cutslopes dong the sides of the excavation as well as along the back of the excavation during construction.

Potential landslide masses have the ability to gain significant velocity prior to impacting the residence, particularly those masses originating high on the bluff face We anticipate that the earth and debris may impact the rooftops at a velocity of 32 feet-per-second, but this should be verified by the project engineers since our estimate is based on empirical observations of landslide velocities.

The foundation of the home should be designed against slope failure on the sides of the home since it is assumed that the side yard will not be protected by retaining walls.

It is our opinion that constructing the home to these recommendations will have a stabilizing effect on the hillside. That is, the hillside in the area of the home will be more stable after the home is built compared to present conditions since the foundation must be designed to support the earth materials in the area of the house.

ASSESSMENT OF HILLSIDE TOE EROSION AND BEACH SCOUR HAZARDS

The ocean side of the property **is** susceptible to the effects ofbeach scour and wave erosion at the toe of the steep coastal bluff because there is an open beach fronting the property. Evidence from exploratory drilling by Foxx, Nielsen and Associates (1999) and from this study indicate that the scour level is about -3.25 feet MSL at the base ofthe bluff And in 1983, this level was near, if not actually, attained when sand was stripped from the beach by huge, strong ocean waves.

As we understand the situation, a riprap seawall or revetment is proposed as part of the development pian. This seawall is essential to the proposed development since it will protect the proposed driveway and the toe of the bluff from erosion. We understand that the project geotechnical and structural engineers are developing the design details for the seawall. It is our opinion that the seawall should be founded on Purisima "bedrock' beneath the beach sand, and the toe of the seawall should be keyed into the Purisima a5 best as possible to prevent the migration of riprap when the beach sand is stripped to the Purisima sometime in the future.

It will also probably be necessary to occasionally conduct maintenance on the seawall if rock shifts or if erosion of the toe of the bluff occurs at the downcoast end of the **wall** in the future. As we understand the proposed design, the wall will tail away from the homesite on its downcoast end and be constructed flush with or into the base of the hillside. If erosion of the beach and the bluff toe moves the bluff toe landward of its present day location, it will be necessary to add rock to maintain the end of the wall flush with the toe of the slope. This will prevent erosion from outflanking the wall and affected the sediments in the homesite area.

There are two factors that control the potential for erosion ofthe toe ofthe bluff which is a critical issue at the property -beach scour and the size ofthe debris wedge that forms at the base of the steep bluff. Beach scour is important because under normal high sand conditions

significant amount of sediment could erode from the hill and fill or block subsurface drain pipes or inlets

All areas on the slope that are stnpped of vegetation during construction of the retaining wall must be revegetated prior io the onset of the next rainfall season

CONCLUSIONS

1 The subject property occupies a steep hillside that rises above ?hebeach at the south end of Beach Drive. The toe of the hillside is at about 15 feet MSL and the crest at about 100 feet MSL. **A** single family home is proposed on the lower portion of the hillside.

2 Four different earth materials occur at the subject property. These are: 1) terrace deposits, 2) Purisima Formation "bedrock", 3) colluvium/landslide deposits; and 4) beach sand. Marine terrace deposits comprise the top 15 feet of the coastal bluff. The homesite is underlain by a combination of colluvium/landslide deposits which overlie either Purisima sand or beach sand. The beach sand occurs in the lowermost portion ofthe homesite area and rests on top of the Purisima. The relationship of these deposits is shown on the geologic cross section, Plate 2.

3 The steep hillside at the property and along the entire length of Beach Drive has experienced numerous landslides in historic time, particularly during the past 17 years. The *most* recent episodes of landsliding occurred during the winter of 2000 on the hillside immediately above the homesite. We understand that the existing retaining wall at the top of the hillside on the adjacent property was constructed in 2000. Landslides will occur on the hillside above the home in the future, most likely during rainstorms but may also be also as a result of strong ground shaking caused by strong ground shaking from large magnitude earthquakes.

4. A slope stability analysis should be conducted for this property to evaluate the degrees of potential slope failure or landsliding to design for. We understand that the project geotechnical engineers are conducting this analysis.

5. There is a high potential for erosion of the beach sand and the toe of the coastal bluff. In 1983, almost all of the beach sand was removed from the beach all the way to the toe of the hillside. Therefore, development of the property requires the installation of some form of seawall to protect the homesite and driveway from erosion by ocean waves We understand that a design for a riprap revetment type seawall is being developed by the project engineers.

Environmental Review Inital Study
ATTACHMENT 7. 5 of 8
APPLICATION 04-0044

EXHIBIT

6. There is a potential flood hazard on the lowermost portion of the property. The 100-year flood elevation has been determined by FEMA as 21 feet above mean sea level based on the 1929 national geodetic vertical datum (NGVD).

7. Moderate to severe ground shaking is likely at the subject property if a large magnitude earthquake occurs on a nearby fault. Refer to the body of the report for specific seismic criteria and fault information.

8. The beach sand under the lowermost part of the property is typically saturated, at least below a depth of 10 feet. However, the groundwater level probably rises and falls with the tide level, and it is probably elevated during winter rainfall periods.

9. The proposed home is feasible if the recommendations presented in this report and those in the accompanying geotechnical and structural engineering reports being prepared by Haro, Kasunich and Associates and Mesiti-Miller Engineering, respectively, are adhered to during design, implemented during construction, and maintained for the lifetime of the dwelling. In this event, the occupants within the dwelling should not be subject to risks beyond an ordinary level of risk as defined in the Scales of Acceptable Risk presenred in Appendix B of this report.

RECOMMENDATIONS

1. The following landslide mitigation measures (or approved equivalent) must be implemented into the design of the homesite:

   A. The home should be constructed into the hillside so that landslide masses flow over the home. This requires that the home be excavated into the hillside such that the rear walls and portions of the side walls act as engineered retaining walls.

   B. Every effort should be extended to minimize the effect of the temporary cutslopes in the homesite excavation on the adjacent property to the northwest and the hillside upslope of the excavation. It is anticipated that temporary shoring will be needed to support the cutslopes during construction of engineering retaining walls, but this will be decision of the project geotechnical engineers.

   C. The rear wall of the dwelling and the rear roof eave should coincide with the slope at the rear ofthe house so that there is very minimal potential for landslides originating above the home to impact the rear wall ofthe dwelling. In concept, landslide debris will flow onto and over the home, and seismically generated failures are thought to be very large masses of earth. A smaller failure such as a saturation generated landslide has a moderate to perhaps high probability of occurring on the bluff face above the proposed home. Either of these landslides

Environmental Review Inital Study
ATTACHMENT 7 6 of 8
APPLICATION 04-0244

EXHIBIT D

could deposit earth and debris on the roof of the proposed home. We anticipate that landslide masses may travel at velocities on the order of 32 feet-per-second based on empirical comparisons to observed landslide velocities. However, the project engineers should attempt to verify this velocity and use values that they develop. The loads on the roof from the potential slide masses will probably require concrete and steel frame building methods.

D. The foundation of the home should be designed against slope failure on the sides of the home since it is assumed that the side yard will not be protected by retaining walls.

F. The existing retaining wall at the top of the hillside may become entrained in a massive slope failure, so we recommend that the project engineers consider the effects of this wall on the proposed home in the event that it completely fails and travels downslope.

G. Exposed deck area should be kept to a minimum, and any deck should include a partially covered area where occupants can take refuge in the event that landslide debris cascades over the home.

2. **A** seawall of some form must be constructed across the ocean side of the driveway to protect the driveway and homesite from erosion by ocean waves. We understand that the project engineers are developing a design for a riprap revetment type seawall constructed of stacked rock. It is our opinion that the seawall should be founded on Purisima "bedrock" beneath the beach sand, and the toe of the seawall should be keyed into the Purisima as best as possible to prevent the migration of riprap when the beach sand is stripped to the Purisima sometime in the future.

In addition, we propose that contingency plans be developed for maintenance of the proposed seawall. It may be necessary to add rock to the downcoast end of the wall where it meets the existing bluff toe if the bluff is eroded landward. We believe that such erosion will occur very rarely and will also be of limited extent within any one episode of erosion based on the aerial photo evidence of the paucity of erosion of the bluff toe over the past 69 years. In addition, access to the end ofthe wall will also be available from the proposed driveway for a crane to place new rock.

3. The home should be designed and constructed to account for the designated 100-year flood elevation of 21 fee: above sea level based on the Nationai Geodetic Vertical Datum of 1929,

4. The home should be designed *to* withstand moderate to severe seismic shaking. Refer to the body of the report for seismic criteria.

Environmental Review Initial Study
ATTACHMENT 7 of 8
APPLICATION 04-0044

5. The project geotechnical engineer should evaluate the liquefaction potential of the beach sand underlying the homesite or develop mitigation measures for liquefaction hazards if the analysis indicates a susceptibility, This applies to the home and the driveway because the driveway will be located almost entirely on what is presently beach sand. We anticipate that a deep pier and grade bean foundation will be used for the house that penetrates below the beach sand and colluvium/landslide deposits into the more competent Purisima Formation sands and gravels, not only to mitigate the effects of liquefaction potential but for potential insrability in the colluvium/landslide deposits and beach sand deposirs.

6. A surface drain system shall be developed for the property which accommodates potential surface flow off the steep hillsides above the property It is besr to accommodate this potential flow in a shallow surface depression such as a shallow drain trough because of the possibility that a significant amount of sediment could erode from the hill and fill or block subsurface drain pipes or inlets. All roof and driveway runoff should be conveyed to Beach Drive where there is a storm drain system.

7. All areas where vegetation is stripped during construction should be revegetated with appropriate erosion resistant vegetation prior to the next rainfall season.

8 This report should be reviewed in conjunction with the forthcoming soils report by Haro, Kasunich and Associates. The recommendations of the soils engineer should be ciosely followed.

9. We shall be afforded an opportunity to review the final design plans to ensure that our recommendations have been incorporated. If we are not afforded this opportunity, we will assume no responsibility for the misinterpretation of our recommendations.

Environmental Review Inital Study
ATTACHMENT 7 5 of 8
APPLICATION 04-0044

EXHIBIT D

HARO, KASUNICH AND ASSOCIATES, INC.

CONSULTING GEOTECHNICAL & COASTAL ENGINEERS

Project No. SC8447
3 June 2004

MR. MARK DeMATTEI
% Richard Beale Land Use Planning, Inc.
100 Doyle Street, Suite E
Santa Cruz. California 95062

Attention: Ms. Betty Cost

Subject: Geotechnical Response to Santa Cruz County Concerns

Reference: Proposed Blufftoe Residence
APN 043-161-18, 41 & 44
Beach Drive, Aptos
Santa Cruz County, California

Dear Mr. DeMattei:

This letter is written to respond to the Santa Cruz County Planning Department's. 9 April 2004 status *of* application request as well as the Santa Cruz County Sanitation District's 7 April 2004 memo regarding the placement of riprap rocks above the existing sewer lines adjacent to the DeMattei Property. In preparation for this response, we have met with the project civil/structural engineers Mesiti-Miller Engineering and have had discussions with the sanitation district. We have also met with Mr. Joe Hanna, Santa Cruz County Planning Department geologist to discuss any concerns that the planning department may have regarding the bunker style hone to be designed on the slope above the beach.

A quarrystone revetment structure has been proposed and preliminarily designed to protect the seaward perimeter of the access driveway and the downcoast edge of the residential development. The revetment structure will penetrate the beach sand and will be founded on the bedrock platform within a bench keyway. The new revetment rock and structure will blend in with the existing rock revetment structure on the upcoast side of development. In order *to* accomplish this, a portion *of* the existing rock revetment structure will be dismantled and reconstructed so that the blend is uniform and structurally sound. This will enhance the existing rock revetment coastal protection. The revetment structure will wrap around the driveway and abut the existing coastal bluff on the downcoast side of the proposed residential development. The new revetment structure will be slightly excavated into the talus material at the very back *of* the beach. The revetment rock will be kept normal to the coastal bluff toe and will not cause negative impact to the surrounding properties. The revetment will help stabilize the coastal bluff where it fronts it and will react neutral to the downcoast Sluff.

Environmental Review Inital Study
ATTACHMENT 8, 1 of 3
APPLICATION 04-0044

96

EXHIBIT

The proposed residence will be a bunker style construction meaning that the house will be excavated into the coastal bluff. Retaining structures will be constructed from the top down to allow temporary and permanent shoring of the coastal bluff excavation during the construction process. The bunker style roof will be composed of reinforced concrete similar to other homes we have designed on Beach Drive.

Our firm has worked closely with the project structural engineers, Mesiti-Miller Engineering to determine appropriate landslide and seismic forces impacting the proposed residence. Ail exterior decks will be covered with a minimum 3 foot roof extension to allow for shadow protection should a person be outside during a design landslide event. Drainage has been incorporated around the back of the residence and along the sides to collect surface and subsurface drainage above and behind the proposed retaining wall and convey it in a controlled manner to the front of the house. An easement does exist from the top of the bluff down to its bottom on the upcoast side of the reference property. The landslide and debris force impact loads presented to the structural engineer are sufficient to account for point loads that may occur should the ccastal bluff top retaining wall above the development slide down and impact the roof of the residence.

The residential structure will be impacted from debris flow slides and deeper seated stump slides. Much of the structure will be dug into the slope so that the brunt of this force will be absorbed by the roof sysiem. Nevertheless, landslide debris will come down the bluff on each side of the proposed residence and ultimately impact the side walls and windows of the house. Therefore, the house sidewalls have been designed for active earth pressures to withstand landslide debris piled up against its side. We had projected that the landslide debris could be as deep as 13 feet on the upcoast side of the structure and 6.5 feet on the open downcoast side of the structure. We also have recommended that windows in this zone of landsiide debris be designed for 30 pounds per cubic foot active earth pressure (equivalent fluid weight) to sustain the piled up debris. This will disallow soil materials from breaking through windows and entering the building during a landslide event.

Mesiti-Miller Engineers and our office have been working with the sanitation district to develop a protection system that will prevent the proposed riprap revetment from impacting or influencing the existing sewer lines, A covered sheetpile box will be constructed over the existing sewer line alignment to prevent the need to excavate down to or beyond the existing sewer line and to eliminate loading of the sewer lines by the propcsed riprap rock. A detail of this design is forthcoming to the sanitation district engineering department.

Environmental Review Inital Study
ATTACHMENT 8, 2 of 3
APPLICATION 04-0044

EXHIBIT D

If you have any questions, please call our office

Very truly yours,

HARO, KASUNICH **AND** ASSOCIATES, INC.

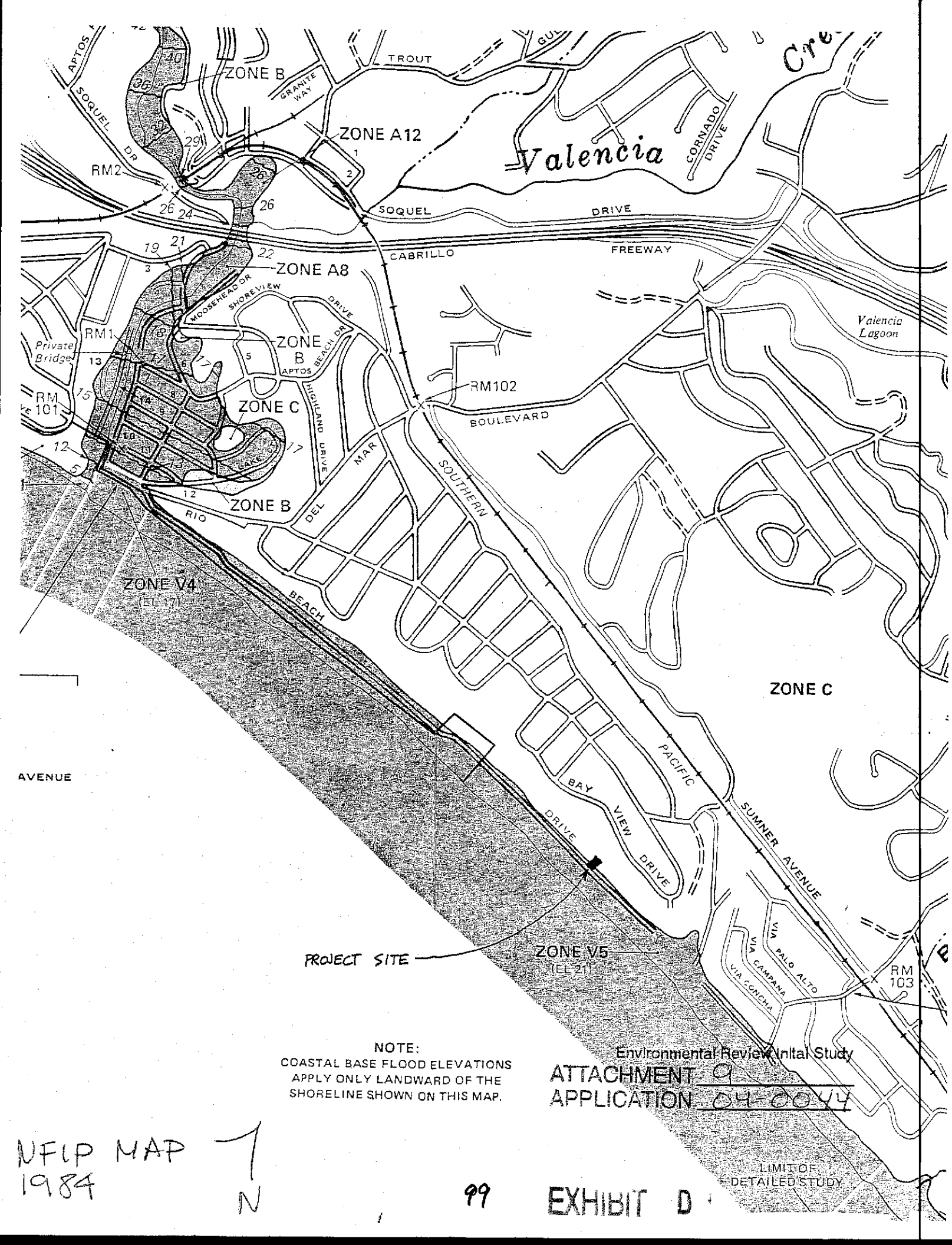
John E. Kasunich
G.E. 455

JEK/dk

Copies: 1 to Addressee
1 to Thatcher Thompson, Attn: Tom Thatcher
1 to Mesiti-Miller Engineering, Inc.; Attn: Mr. Dale Hensbee
3 to Richard Beale Land Use Planning, Inc.; Attn: Ms. Betty Cost

Environmental Review Inital Study
ATTACHMENT 8, 3 of 3
APPLICATION 04-0044

EXHIBIT D



NOTE:
COASTAL BASE FLOOD ELEVATIONS APPLY ONLY LANDWARD OF THE SHORELINE SHOWN ON THIS MAP.

Environmental Review Initial Study
ATTACHMENT C
APPLICATION 04-0044

NFIP MAP
1984

N

99

EXHIBIT D

COUNTY OF SANTA CRUZ | Planning Department

INTEROFFICE MEMO

APPLICATION NO: 04-0044

Date: January 30,2004

To: David Keyon. Project Planner

From: Larry Kasparowitz, Urban Designer

Re: Design Review for a single family residence at the end of Beach Drive, Aptos (Howell and McNeil Development/ owner, Mark DeMattei Construction/ appiicant)

GENERAL PLAN / ZONING CODE ISSUES

Design Review **Authority**

13.20.130 The Coastal Zone Design Criteria are applicable to any development requiring a Coastal Zone Approval.

Evaluation Criteria	**Meets** criteria In code (✔)	**Does** not meet criteria (✔)	**Urban** Designer's Evaluation
Visual Compatibility			
All new deveiopment shall be sited, designed and landscaped to be visually compatible and integrated with the character *of* surrounding neiahborhoods or areas	✔		
Minimum Site Disturbance			
Grading, earth moving, and removal of major vegetation shall be minimized.	✔		
Developers shall be encouraged to maintain all mature trees over 6 inches in diameter except where circumstances require their removal, such as obstruction of the building site, dead or disease.: trees. or nuisance species.			**N/A**
Special landscape features (rock outcroppings, prominent naturai landforms, tree groupings) snall be retained.			**N/A**

Environmental Review Inital Siudy

EXHIBIT D

Ridgeline Development			
sited and designed not to project above the ridgeline or tree canopy at the ridgeline			**N/A**
Land divisions which would create parcels whose oniy building site wouid be exposed on a ridgetop shali not be permitted			**NIA**
Landscaping			
New or replacement vegetation shali be compatible with surrounding vegetation and shall be suitable to the climate, soil, and ecoiogical characteristics of the area	✔		
Rural Scenic Resources			
Location of development			
Development shall be located, if possible, on parts of the site not visible or least visible from the public view.			**N/A**
Development shall not block views of the shoreline from scenic road			**NIA**
Site Planning			
Development shall be sited and designed to fit the physical setting carefully so that its presence is subordinate to the natural character of the site, maintaining the natural features (streams, major drainage, mature trees, dominant vegetative communities)			**NIA**
Screening and landscaping suitable to the site shall be used *to* soften the visual impact of development in the			**N/A**
Structures shall be designed to fit the topography of the site with minimal cutting, grading, or filling for construction			**NIA**
Pitched, rather than flat roofs, which are surfaced with non-reflective materials except for solar energy devices shall **be** encouraged			**NIA**

Environmental Review Inital Study
ATTACHMENT 10, 2 of 6
APPLICATION 04-0044

Natural materials and colors which blend with the vegetative cover of the site shall be used, or if the structure is located in an existing cluster of buildings, colors and materials shall repeat or harmonize with those in the cluster			**NIA**
Large agricultural structures			
Tie visual impact of large agricultural structures shall be minimized by locating the structure within or near an existing croup of buildings			**N/A**
The visual impact of large agricultural structures shall be minimized by using materials and colors which blend with the building ciuster or the natural vegetative cover of the site (except for			**N/A**
The visual impact of large agricultural structures shail be minimized by using landscaping to screen or softer, the aopearance of the structure			**NIA**
Restoration			
Feasible elimination or mitigation of unsightly. visually disruptive or degrading elements such as junk heaps, unnatural obstructions, grading scars. or structures Incompatible with the area shali be included in site			**NIA**
The requirement for restoration of visually blighted areas shall be in scale with the size of the proposed project			**N/A**
Materials, scale, location and orientation of signs shaii harmonize with surrounding elements			**N/A**
Directly lighted, brightly colored, rotating, reflective, blinking: flashing or moving signs are prohibited			**NIA**
Illumination of signs shall be permitted only for state and county directional and informational signs, except in designated commercial and visitor serving zone districts			**N/A**

Environmental Review Inital Study
ATTACHMENT 10, 3 of 6
APPLICATION 04-0044

In the Highway 1 viewshed, except within the Davenport commercial area, only CALTRANS standard signs and public parks, or parking lot identification signs, shall be permitted to be visible from the highway. These signs shall be of natural unobtrusive materials and colors			N/A
Beach Viewsheds			
Blufftop development and landscaping (e.g., decks, patios, structures, trees, shrubs, etc.) in rural areas shall be set back from the bluff edge a sufficient distance to be out of sight from the shoreline, or if infeasible, no visually intrusive			N/A
No new permanent structures on open beaches shall be allowed, except where permitted pursuant to Chapter 16.10 (Geologic Hazards) or Chapter 16.20 (Grading Regulations)			N/A
The design of permitted structures shall minimize visual intrusion, and shall incorporate materials and finishes which harmonize with the character of the area. Natural materials are preferred	✔		

Environmental Review Initial Study
ATTACHMENT 10, 4 of 6
APPLICATION 04-0044

Desian Review Authority

13.11.040 Projects requiring design review

(a) Single hone construction, and associated additions involving 500 square feet or more, within coastal special communities and sensitive sites as defined in this Chapter.

13.11.030 Definitions

(u) 'Sensitive Site" shall mean any property located adjacent to a scenic road or within the viewshed of a scenic road as recognized in the General Plan; or located **on a coastal** *bluff* or on a ridgeline

Design Review Standards

13.11.072 Sitedesign.

Evaluation Criteria	**Meets** criteria In code (✔)	**Does** not meet criteria (✔)	Urban Designer's Evaluation
Compatible Site **Design**			
Location and type of access to the site	✔		
Building siting in terms of its location and orientation	✔		
Building bulk, massing and scaie	✔		
Parking location and layout	✔		
Relationship to natural site features and environmental influences	✔		
Landscaping	✔		
Streetscape relationship			NIA
Street design and transit facilities			N/A
Relationship to existing structures	✔		
Natural Site Amenities and Features			
Relate to surrounding topography	✔		
Retention of natural amenities	✔		
Siting and orientation which takes advantage of natural amenities	✔		
Ridgeline protection			N/A
Views			
Protection of public viewshed	✔		
Minimize impact on private views	✔		
Safe and Functional Circulation			
Accessible to the disabled, pedestrians, bicycles and vehicles			N/A

Environmental Review Initial Study
ATTACHMENT 10 5 of 6
APPLICATION 04-0044

EXHIBIT D

Reasonable protection for adjacent properties	✔		
Reasonable protection for currently occupied buiidings using a solar energy system	✔		
Noise			
Reasonabie protection for adjacent properties	✔		

13.11.073 Building design,

Massing of building form	✔		
Building silhouette	✔		
Spacing between buildings			N/A
Street face setbacks	✔		
Character of architecture	✔		
Building scale	✔		
windows, and other features	✔		
Location and treatment of entryways	✔		
Finish material, texture and color	✔		
Scale			
Scale is addressed on appropriate levels	✔		
Design elements create a sense of human scale and pedestrian interest	✔		
Building Articulation			
Variation in wall plane, roof line, detailing, materials and siting	✔		
Solar Design			
Building design provides solar access that is reasonably protected for adjacent properties	✔		
Building walls and major window areas are oriented for passive solar and natural lighting	✔		

Environmental Review Inital Stud
ATTACHMENT 10, 6 of 6
APPLICATION 04-0044

EXHIBIT D

HOWELL / McNEIL / DE MATTEI RESIDENCE

THACHER & THOMPSON ARCHITECTS
JANUARY 23, 2004

Environmental Review Initial Study
ATTACHMENT 11
APPLICATION 04-0044

EXHIBIT D

County of Santa Cruz

PLANNING DEPARTMENT
701 OCEAN STREET 4TH FLOOR SANTA CRUZ CA 95060-4000
(831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123
TOM BURNS, DIRECTOR

September 3, 2004

Howell and McNeil
125 Glen Ridge Ave
Los Gatos, CA 95030

SUBJECT: Review of Geotechnical Investigation
by Haro, Kasunich and Associates, Inc.
Dated: January 2004, Project No. **SC8447**
And Engineering **Geology** Report Nieisen and Associates
Dated January **2004,** Job No. **SCr-1053-G**
APN: 043-161-18 ***et.*** ai., Application No.: 04-0044

Dear Applicant:

Thank you for submitting the soils and geology reports for the parcel referenced above. The reports were reviewed for conformance with County Guidelines for Soils/Geotechnical Reports and also for completeness regarding site-specific hazards and accompanying technical reports (e.g. geologic, hydrologic, etc.). The purpose of this letter is to inform you that the Planning Department has accepted the reports and the following recommendations become permit conditions:

1. All report recommendations must be followed.
2. An engineered foundation plan is required. This plan must incorporate the design recommendations of the soils engineering report
3. The home must elevated above the 100-year flood elevation of 21 feet above mean sea level in accordance with FEMA standards.
4. Al! cut slopes must be stabilized by retaining walls.
5. The home shall be designed so that it is protected from the impact of a landslide. All openings shall be designed to resist these impact forces, and shall prevent materials from entering the home,
6. When evaluating the impact of the landslide, the structure the civil engineer must consider the potential for large solid debris (such as the bluff top retaining wail) impacting the home's roof and sides.
7. The home and seawall must be designed to resist all wave action and related scour.
8. All retaining wall and protection structures must be reviewed and approved by the project geotechnical and engineering geologist before submittal to the County.
9. The County Civil Engineer must review and approve aii protective structures.
10. All decks shall have an over hang of at least 3 feet in order to provide refuge from a potential debris flow.
11. The Department of Public Works must approve all work that is related to the sewer line prior to the submittal *of* Building Plans.
12. An erosion control plan must be prepared for the project. Before submittal to the County, the plan must be approved by the project geotechnical engineering and engineering geologist.

Environmental Initial Study
ATTACHMENT 12, 1 of 2
APPLICATION 04-0044
EXHIBIT C

13. A concrete ditch must be constructed at the top of the uppermost retaining wall.
14. Final plans shall show the drainage system as detailed in the soils engineering report.
15. Final plans shall reference the approved soils engineering report and state that all deveiopment shall conform to the report recommendations.
16. Prior to building permit issuance; the soil engineer and engineering geologist must submit a brief building, grading and drainage plan review letter to Environmental Planning stating that the plans and foundation design are in general compliance with their report's recommendations. If: upon plan review, the soils engineer or engineering geologist requires revisions or additions, the applicant shall submit to Environmental Planning two copies of revised plans and a final pian review letter stating that the plans, as revised, conform to the report recommendations.
17. The soil engineer must inspect all foundation excavations and a letter of inspection must be submitted to Environmental Planning and your building inspector prior to placement of concrete.
18. For all projects, the soil engineer and engineering geologist must submit a final letter report to Environmental Planning and your building inspector regarding compliance with all technical recommendations of the soil report and geology report prior to final inspection. For all projects with engineered fills, the soil engineer must submit a final grading report (reference August 1997 County Guidelines for Soils/Geotechnical Reports) to Environmental Planning and your building inspector regarding the compliance with all technical recommendations of the soil report prior to final inspection.
19. A declaration of geologic hazards related to the coastal erosion hazards must be recorded prior to the issuance of the building permit. This declaration shall be prepared by the County's project Resource Planner.

The soil report and engineering geology report acceptance is only limited to the technical adequacy of the reports. Other issues, like planning, buiiding, septic or sewer approval, etc., may still require resolution.

The Planning Department will check final development plans'to verify project consistency with report recommendations and permit conditions prior to building permit issuance. If not already done, please submit two copies of the approved soil report at the time of building permit application for attachment to your buiiding plans.

Please call 454-3175 if we can be of any assistance.

Sincerely,

Joseph Hanna
County Geologist

Cc: Robin Bolster, Resource Planner
Building Plan Check
Engineering Geologist
Geotechnical Engineer

Environmental Review Inital Stud
ATTACHMENT 12, 2 of 2
APPLICATION 04-0044

EXHIBIT D

SOQUEL CREEK WATER DISTRICT

P.O. Box 158
Mail to: 5180 Soquel Drive
Soquel, CA 95073-0158
PHONE (831) 475-8500 FAX (831) 475-4291

PROJECT COMMENT SHEET

Date of Review: 02/02/04
Reviewed By: Carol Carr

Returned Project Comments to:
Dand Keyon
County of Santa Cruz
Planning Department
701 Ocean St., Ste. 400
Santa Cruz, CA 95060-4073

Owner. Howell & McNeil Development LLC
126 Glen Ridge Ave.
Los Gatos, CA 96030

Applicant: Mark Demattai
Demattei Construction
1794 The Alemada
San Jose. CA 96010

Type of Permit Development Permit
County Application # 04-0044

Subject APN: 043-161-18, 41 & 44
Location: Property located on the south terminus of Beach Dnve. about 1 mile southeast of the intersection of Aptos Beach Drive and Beach Dnve. Aptos.

Project Description: Proposal to construct a 4281 sq. ft. single-family dwelling. Requires a Coastal Development Permit; a Variance to reduce the required 30 ft. front yard setback tu about 10 ft. and the required 30 ft. side yard setbacks tu about 4 ft., and increase the two story maximum in the Urban area tu 3 stories.

Notice

Notice is hereby given that the Board of Directors of the Soquel Creek Water District is considering adopting policies to mitigate the impact of development on the local groundwater basins. The proposed project would be subject to these and *any* other conditions of service that the District may adopt prior to granting water service.

It should not be taken as a guarantee that service will be available to the project in the future or that additional conditions will not be impoeed by the District prior to granting water service.

Requirements

The developer/applicant, without cost to the Dietrict. shall:

1) Destroy *any* wells on the property in accordance with State Bulletin No. *74;*
2) Satisfy all conditions imposed by the District to assure necessary water pressure. flow and quality;
3) Satisfy all conditione for water conservation required by the District at the time of application for service, *including the* following:
    a) All applicants for new water service from Soquel Creek Water District shall be required *to* offset expected water use of their respective development by a 1.2 to 1 ratio by retrofitting existing developed property within the Soquel Creek Water Dietrict service area so that *any* new development has a "zero impact" *on* the District's groundwater supply. Applicants far new service shall bear those costs associated with the retrofit as deemed appropriate by the District up to a maximum set by the District and pay *any* associated fees *set* by the District *to* reimburse administrative and inspection costs in accordance with District procedures for implementing this program.

SOQUEL CREEK WATER DISTRICT
P O Box 158
Mail to 6180 Saquel Drive
Saquel. CA 960794158
PHONR (831) 475-8500 FAX (831) 475-4291

PROJECT COMMENT SHEET

b) Plana for a water efficient landscape and irrigation system shall be submitted to Dietrict Conservation Staff for approval;
c) All interior plumbing fixtures shall he low-flow and haw the EPA Energy Star label;

District Staff shall inspect the completed project for compliance with all conservation requirements prior to commencing water service;

4) Complete LAFCO annexation requirements, if applicable;
5) All units shall be individually metered with a minimum size of 618-inch by %-inch standard domeetic water meters;

A memorandum of the terms of this letter shall be recorded with the County Recorder of the County of Santa Cruz to insure that any future property owners are notified of the conditions aet forth herein.

Soquel Creek Water District Project Review Comments:

1. SCWD has reviewed plans prepared by Thacher & Thompson Architects and has made comments. 1) A New Water Service Application Request will need to be completed and aubmitted tu the SCWD Board of Directors; however, please be advised that additional conditione may be imposed as per the above Notice. 2) The applicant shall be required to offset the *expected* water use of their respective development by a 1.2 to 1 ratio by retrofitting existing developed property within the Soquel Creek Water District service area. Applicants for new service shall bear those costs associated with the retrofit. Calculations for the expected water demand of this project have been provided. These calculations are based on the preliminary plane, and *are* subject to change. Final calculations are pending finalization of the project plana (total number of units, laundry facilities, community center facilities, irrigation & backflow devices, etc...). 3) All interior plumbing fixtures shall be low flow and have the EPA Energy Star label. 4) The landscape-planting plan has been reviewed and approved by District Conservation Staff. 5) A Fire Protection Requirements Form will need to be completed and reviewed by the appropriate Fire District. *6)* Water pressure in this area is high; a Water *Waiver for Pressure and/or Flow* will need to be recorded.

Attachments:

- ☐ Soquel Creek Water District Procedures for Processing Minor Land Divisions (MLD) dated November 9,1992
- ☐ Soquel Creek Water District Procedures for Processing Water Service Requests for Subdivisions and Multiple Unit Developments
- ☐ Resolution 79-7, Resolution of the Board of Directors of the Soquel Creek County Water District Establishing Landscape Design and Irrigation Water Use Policy
- [SI Water Demand Offset Policy Fact Sheet
- ☒ Soquel Creek Water District New Water Service Application Request.
- ☐ Sequel Creek Water District Variance Application
- [SI Soquel Creek Water District Water Waiver Fm Pressure and/or Flow
- ☒ Fire Protection Requirements Form

EXHIBIT E

Aptos/La Selva Fire Protection District
6934 Soquel Drive ▪ Aptos. CA 95003
Phone # 831-685-6690 ▪ Fax # 831-685-6699

March 10,2004

Planning Department
County of Santa Cruz
Attention: David Keyon
701 Ocean Street
Santa Cruz, CA 93060

Subject: APN: 43-161-18,41,44 / Appl #04-0044
Beach Drive

Dear Mr. Keyon:

Aptos/La Selva Fire Department has reviewed the plans for the above cited project and has no objections as presented; however, compliance must be met on the following.

- A 30 foot clearance will be maintained with non-combustible vegetation around all structures or to the property line whichever is a shorter distance.
EXCEPTION: Single specimens of trees, ornamental shrubbery or similar plants used as ground covers, provided they do not form a means of rapidly transmitting fire from native growth to any structure.

- Any other requirements will be addressed in the Building Permit phase.

- Plan check is based upon plans submitted to this office. Any changes or alterations shall be re-submitted for review prior to construction.

****

In order to obtain building application approval, recommend you have the DESIGNER add appropriate NOTES and DETAILS showing the following information on the **plans** that **are** submitted for BUILDING PERMIT.

NOTE on the plans that these plans are in compliance with California Building and Fire Codes (2001) and District Amendment.

NOTE on the plans the OCCUPANCY CLASSIFICATION, BUILDING CONSTRUCTION TYPE / FIRE RATING, and SPRINKLERED or NON-

///

EXHIBIT

SPRINKLERED as determined by building official and outlined in Part IV of the California Building Code.
(e.g. R-3, Type V-N, Sprinklered)

SHOW on the plans a public fire hydrant within 250 feet of any portion of the building meeting the minimum required fire flow for the building. This information can be obtained from the water company.

FIRE FLOW requirements for the subject property are 1000 gallons. NOTE on the plans the REQUIRED and AVAILABLE FIRE FLOW. The AVAILABLE FIRE FLOW information can be obtained from the water company.

NOTE on the plans that the building shall be protected by an approved automatic fire sprinkler system complying with the currently adopted edition of NFPA 13D and adopted standards of the Aptos/La Selva Fire Protection District.

NOTE that the designer/installer shall submit three (3) sets of plans and calculations for the underground and overhead Residential Automatic Fire Sprinkler System to this agency for approval. Installation shall follow our guide sheet.

NOTE on the plans that an UNDERGROUND FIRE PROTECTION SYSTEM WORKING DRAWING must be prepared by the designer/installer. The plans shall comply with the UNDERGROUND FIRE PROTECTION SYSTEM INSTALLATION POLICY HANDOUT.

SHOW on the plans where smoke detectors are to be installed according to the following locations and approved by this agency as a minimum requirement.

- One detector adjacent to each sleeping area (hall, foyer, balcony, or etc.)
- One detector in each sleeping room.
- One at the top of each stairway of 24" rise or greater and in an accessible location by a ladder.
- There must be at least one smoke detector on each floor level regardless of area usage.
- There must be a minimum of one smoke detector in every basement area.

NOTE on the plans, building numbers shall be provided. Numbers shall be a minimum of four(4) inches in height on a contrasting background and visible from the street. Where numbers are not visible from the street, additional numbers shall be installed on a directional sign at the property driveway and the street.

NOTE on the plans the installation of an approved spark arrester on the top of the chimney. The wire mesh not to exceed 1/2 inch.

NOTE on the plans that the roof covering shall be no less than Class "B" rated roof.

EXHIBIT

NOTE on the plans that a 30 foot clearance will be maintained with non-combustible vegetation around all structures or to the property line whichever is a shorter distance.

EXCEPTION: Single specimens of trees, ornamental shrubbery or similar plants used as ground covers, provided they do not form a means of rapidly transmitting fire from native growth to any structure.

NOTE on the plans the job copies of the building and fire systems **plans** and permits must be on-site during inspections.

Note: As a condition of submittal of these plans, the submitter, designer and installer certify that these plans and details comply with applicable Specifications, Standards, Codes and Ordinances, agree that they are solely responsible for compliance with applicable Specifications, Standards, Codes and Ordinances, and further agree to correct any deficiencies noted by this review, subsequent review, inspection or other source, and, to hold harmless and without prejudice, the reviewer and reviewing agency.

Sincerely,

Jim Dias, Fire Marshal
Fire Prevention Division
Aptos/La Selva Fire Protection District

Cc: Howell & McNeil Development LLC
125 Glen Ridge Avenue
Los Gatos, CA 95030

cc: Mark Demattei
1794 The Alemeda
San Jose, CA 95126

EXHIBIT E

AMBAG
ASSOCIATION OF MONTEREY BAY AREA GOVERNMENTS

October 14,2004

Ms. Paia Levine
County of Santa Cruz
Planning Department
701 Ocean Street, 4th Floor
Santa Cruz, CA 95060

Re: MCH# 100111 – Notice of Intent to **Adopt** a Mitigated Negative Declaration for Demattei Beach Drive **House** and Revetment

Dear Ms. Levine:

AMBAG's Regional Clearinghouse circulated a summary of notice of your environmental document to our member agencies and interested parties for review and comment.

The AMBAG Board of Directors considered the project on October 13, 2004 and has no comments at this time.

Thank you for complying with the Clearinghouse process.

Sincerely,

Nicolas Papadakis
Executive Director

SERVING OUR REGIONAL COMMUNITY SINCE 1968
445 RESERVATION ROAD, SUITE G ✦ P.O. BOX 809 ✦ MARINA, CA 93933-0809
(831) 883-3750 ✦ FAX (831) 883-3755 ✦ www.ambag.org

EXHIBIT I

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Arnold
Schwarzenegger
Governor

Jan Boel
Acting Director

October 27, 2004

For Jacqui
Paia

Paia Levine
Santa Cruz County
701 Ocean Street
Santa Cniz, CA 95060

Subject DeMattei Beach Dnve House and Revetment
SCHX. 2004092118

Dear Paia Levine:

The State Clearinghouse submitted the above named Negative Declaration to selected state agencies for review. The review period closed on October 26, 2004, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Terry Roberts

Terry Roberts
Director, State Clearinghouse

1400 TENTH STREET P.O BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

EXHIBIT E

Document Details Report
State Clearinghouse Data Base

SCH#	2004092118
Project Title	DeMattei Beach Drive House and Revetment
Lead Agency	Santa Cruz County
Type	Neg Negative Declaration
Description	Proposal to construct a 4,281 SF Single Family Dwelling. Requires a Coastal Development Permit; a Variance to reduce the required 30 foot front yard setback to about 10 feet and the required 30 foot sideyard setbacks to about 5 feet, and increase the two story maximum in the Urban area to 3 stories; a Residential Development Permit for a fence between 3' and 6' tall in the front yard setback; Preliminary Grading Approval for approximately 1,330 CY of excavation and 1,170 cubic yards of rip rap revetment; a Geoiogic Report Review and Soils Report Review.

Lead Agency Contact

Name	Paia Levine		
Agency	Santa Cruz County		
Phone	(831) 454-3178	Fax	
email			
Address	701 Ocean Street		
City	Santa Cruz	State CA	Zip 95060

Project Location

County	Santa Cruz		
City			
Region			
Cross Streets	Beach Drive / Rio Del Mar Boulevard		
Parcel No.	43-161-18, 41, 44		
Township	Range	Section	Base

Proximity to:

Highways	
Airports	
Railways	SPRR
Waterways,	Aptos Creek, Vaiencia Creek, Trout Creek, Valencia Lagoon, Pacific Ocean
Schools	Valencia Elementary, Aptos HS, Rio Del Mar
Land Use	Vacant / Urban-Low Residential / Parks and Recreation

Project Issues	Aesthetic/Visual; Coastai Zone; Flood Plain/Flooding; Geologic/Seismic; Other Issues; Recreation/Parks; Soil Erosion/Compaction/Grading
Reviewing Agencies	Resources Agency; Regional Water Quality Control Board. Region 3; Department of Parks and Recreation: Native American Heritage Commission; Public Utilities Commission; Department of Fish and Game, Region 3; Department of Water Resources; Department of Conservation; California Coastal Commission; California Highway Patrol; Caltrans, District 5; State Lands Commission

Dale Received	09/27/2004	Start of Review	09/27/2004	End of Review	10/26/2004

11 t

Note: Blanks in data fields result from insufficient information provided by lead agency.

EXHIBIT

SANTA CRUZ COUNTY SANITATION DISTRICT

INTER-OFFICE CORRESPONDENCE

DATE: DECEMBER 10,2004 (4th ROUTING)

TO: PLANNING DEPARTMENT: DAVID KEYON

FROM: SANTA CRUZ COUNTY SANITATION DISTRICT

SUBJECT: CONDITIONS OF SERVICE FOR THE FOLLOWING PROPOSED DEVELOPMENT

APN: 043-161-18, -41, -43 APPLICATION NO.: 04-0044

PARCEL ADDRESS: NOT AVAILABLE. VACANT LOT (SOUTHEASTERLY END OF BEACH DRIVE)

PROJECT DESCRIPTION: CONSTRUCT SINGLE FAMILY DWELLING REQUIRING SETBACK **AND** HEIGHT VARIANCES

The Sanitation Division approves the proposed project and placement of structures in concept. Additional information and design specificity shall be forthcoming from applicant prior to the issuance of a sewer connection permit for the proposed building permit.

The existing manhole that is located within the area to be improved shall be moved to beyond the westerly property line. Plans and specifications shall be submitted to the District for approval. All permits shall be the responsibility of the owner.

Additional information and details shall be required by the applicant and engineers to explain and ensure that no damage shall be done to the District's sewers during the proposed construction. A more detailed plan, including a bypass plan, shall be submitted to the District and a deposit for all present and future County reviews and inspection costs shall be made by the applicant at the time the applicant receives permit approval from the California State Coastal Commission.

The District also requires that the property owner record a document writtenlapproved by District Counsel holding the District harmless for any/all damage that might occur to private or public property from the repair or replacement of the public sewer mains. Additionally, the District will require that the property owner share or assume all liability and cost resulting from a damaged mains/sewage spill resulting from the proposed improvements and causing damage and/or complicating/delaying the District's ability to

EXHIBIT E

perform repairs or replacement to its gravity and force main sewers. This liability statement shall be formalized with the District and recorded

Diane Romeo
Sanitation Engineering

DR/dr

c: Applicants: Richard Beale Land Use Planning. Inc.
100 Doyle St. Suite E
Santa Cruz, CA 95062

Mark DeMattei, DeMattei Construction
1794 The Alameda
San Jose. CA 95126

Property Owner: Howell & McNeil Development LLC
125 Glen Ridge Ave.
Los Gatos, C.4 95030

Engineer: Jim Putnam
Mesiti-Miller
224 Walnut Ave. Suite B
Santa Cruz, CA 95060

D:\WPW\PLAN. APPL\appl 04_0044 beach dr 3.doc

EXHIBIT E