Staff Report to the Zoning Administrator

Application Number: 08-0227

Applicant: Hamilton-Swift Land Use c/o Deidre Hamilton
Owner: Timothy & Jennifer Bumb
APN: 043-152-46

Agenda Date: June 5, 2009

Agenda Item #: 2
Time: After 10:00 a.m.

Project Description: Proposal to construct a three story, single family dwelling with a non-habitable first floor (to comply with Federal Emergency Management Agency flood elevation requirements) and to grade approximately 927 cubic yards.

Location: Property located on the northeast side of Beach Drive, 4,200 feet east of the intersection of Beach Drive and Rio del Mar Blvd., approximately 145 feet past the private gate (across the street from 533 Beach Drive) in Aptos.

Supervisoral District: Second District (District Supervisor: Ellen Pirie)

Permits Required: Coastal Development Permit, Variances to increase the number of allowed stories from 2 to 3 within the Urban Services Line, to increase the maximum floor area ratio from 50% to 55% and to reduce the required 20-foot setback to the entrance of the garage to about 10 feet, Design Review to increase the 25 foot height limit to 29 feet, and Preliminary grading approval for 927 cubic yards.

Technical Reviews: Geologic and Geotechnical Reports

Staff Recommendation:

- Certification that the proposal is exempt from further Environmental Review under the California Environmental Quality Act.
- Approval of Application 08-0227, based on the attached findings and conditions.

Exhibits

A.	Project plans	G.	Location Map
B.	Findings	H.	Printout, Discretionary application comments, dated 5/13/09
C.	Conditions	I.	Urban Designer comments and memos, dated 6/25/08 and 10/03/08
D.	Categorical Exemption (CEQA determination)	J.	Geotechnical and Engineering Geology Report review letter, dated
E.	Assessor's Map		
F.	Zoning & General Plan map		

7/27/08

K. Excerpt of Recommendations from Engineering Geologic Investigation prepared by Rogers E. Johnson & Associates, dated May 12, 2008 (report on file)

L. Excerpts of Discussion, Conclusions and Recommendation from Geotechnical Investigation prepared by Haro, Kasunich and Associates, Inc., dated April 18, 2008 (report on file)

M. Reduced set of Project Plans

N. Comments and Correspondence

Parcel Information

Parcel Size:	7,526 square feet (5,540 square feet without the right of way)
Existing Land Use - Parcel:	Vacant
Existing Land Use - Surrounding:	Residential-single family dwellings
Project Access:	Beach Drive (a private road)
Planning Area:	Aptos
Land Use Designation:	R-UL (Urban Low Density Residential)
Zone District:	RB (Residential Ocean Beach)
Coastal Zone:	x Inside __ Outside
Appealable to Calif. Coastal Comm.	x 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 Formation sands
Fire Hazard:	Not a mapped constraint
Slopes:	50% to over 70% (base of coastal bluff)
Env. Sen. Habitat:	Not mapped/no physical evidence on site
Grading:	About 927 cubic yards
Tree Removal:	One 16" and one 40" cypress will be removed
Scenic:	Designated Coastal Scenic Resource Area
Drainage:	Drainage to beach
Archeology:	Not mapped/no physical evidence on site

Services Information

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

History

The subject parcel is vacant and an unconditional certificate of compliance (Permit 08-0140) was approved on July 2, 2008. On May 30, 2008 the County Planning Department accepted this application to construct a 3,035 square foot (2,100 habitable square feet), three-story single family dwelling at the toe of the bluff.

Project Setting

The project site is located on the bluff side of the private section of Beach Drive in Aptos, between two vacant lots and across the street from a single family residence at 533 Beach Drive. The property is steeply sloped, with the entire site in excess of 50% slopes. Three Monterey Cypress trees are present on site in the following sizes: 16", 18" and 40". The 16" and 40" trees will be removed in order to develop the property. A line of mostly one and two story homes already exists on the coast side of Beach Drive, between the project site and the beach.

Zoning & General Plan Consistency

The subject property is a 7,318 square foot lot. The lot is located in the RB (Residential Ocean Beach) zone district, a designation which allows residential uses and includes the entire 40 foot Beach Drive right of way. This is one of only five parcels along Beach Drive, beyond the gate where the entire right of way is part of the parcel. For zoning purposes the net square footage of the lot is therefore 5,540 square feet. The proposed Single Family Dwelling is a principal permitted use within the zone district and the project is consistent with the site's (R-UL) Urban Low Density Residential General Plan designation.

	RB Zone District Standard	Proposed
Front yard setback	10'*	10'
Setback to entrance of garage/carport	20'	10'**
Side yard setbacks	0' and 5'	5' and 5'
Rear yard setback	10'	48'
Lot Coverage	40%	27%
Floor Area Ratio	50%	55%**
Maximum height	25' on bluff side	29'

* No front yard setback requirements for RB zoned parcels with slopes greater than 25% within 30 feet of the right-of-way per Section 13.10.323(d)(5)(B) of the County Code.
** Variance required.

The General Plan/Local Coastal Program Land Use Designation of the parcel is R-UL (Urban Low Density Residential), implemented by the RB (Ocean Beach Residential) zone district. The proposed single-family dwelling complies with the purposes of this Land Use Designation, as the primary use of the site will be residential.

Geologic Hazards

General Plan policy 6.2.10 requires all development to be sited and designed to avoid or minimize hazards, as evaluated by geologic or engineering investigations. Due to the location of the parcel adjacent to 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 in this case include, but are not limited to: elevation of the structure, friction pier or deep caisson foundation; retaining walls, steel structure and reinforced roof. In addition, a deed restriction indicating the potential hazards on the site and level of prior investigation conducted must be recorded on the property deed. If properly constructed and maintained, the project design is expected to provide protection from landslide hazards and flooding during 100-year storm events for the 100-year life span of the structure.

Engineering Geologic and Geotechnical Reports have been prepared, which address geologic hazards, site conditions, and hazard mitigations for the proposed dwelling (excerpts of conclusions and recommendations in Exhibit K & L). The project soils engineer and geologist recommend constructing the dwelling with a reinforced concrete structure designed to withstand the impact of expected landslides. This is 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. To accomplish this construction a series of retaining walls are constructed on three sides resulting in an open box. Within this box the home is constructed with a metal frame building that can resist the impact force from a debris flow. All of the foundation is designed to withstand forces that result from a slope failure while at the same time compensating for varying soils conditions. As recommended by the project geologist and soils engineer, deck areas will be covered by a roof to provide refuge in the event of a landslide.

The project site is located within the FEMA Flood Zone-V, a 100-year coastal flood hazard zone. This zone is subject to inundation resulting from waves and storm surges. FEMA regulations and the County Geologic Hazards ordinance (Chapter 16.10) require 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 from flooding due to a 100-year storm surge. The garage doors and non-load bearing walls must function as "break-away" walls and the parking slab must be frangible so that is will break apart during an intense storm, all as required by FEMA regulations and Chapter 16.10 of the County Code.

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 dwelling of similar size to neighboring homes on Beach Drive.

The proposed dwelling will not destabilize or exacerbate erosion of the bluff, and when completed will act to retain and stabilize the toe of the bluff. The greatest 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 (Exhibit L). The key elements of this plan are as follows:

- Site grading and retaining wall construction must take place between April 15th and October 15th, when the site is dry.
- The project soils engineer 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 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. Furthermore, a Waiver, Indemnification, Security, 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, financial security instruments 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 security 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 security will be for 50% of the above construction costs, to be released not less than one year after final inspection (Condition of Approval II.H).

Public Access

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 not be impeded by the proposed dwelling and construction, and no public access easements exist across the subject property. Furthermore, the site is not designated for Primary Public Access in Policy 7.7.15 of the General Plan/LCP, and is not suitable for access due to the steep topography of the site.

West Retaining wall

The proposed location of the retaining wall on the west side of the property results in a portion of the structure being over the 25-foot height limit. A condition of approval has been included that requires the retaining wall be revised to be built flush with the south face of the second and third floors so that the only portion that does not conform to the 25 foot height limit is the covered

third floor roof eave. Moving the wall forward will reduce the size of the wall from 10 feet to about 7 to 8 feet in height.

Design Review

The project is a "bunker" style design made of reinforced concrete that is boxy with a flat roof, covered decks and stepped back flush with the face of the slope to minimize impacts to the rear of the dwelling. The home will be painted earth tone colors that blend with the bluff. The project is located within a mapped scenic resource area, and therefore must comply with General Plan Policy 5.10b (New Development within Visual Resource Areas), which states that new development should be designed and constructed to have minimal to no adverse impact on visual resources. General Plan/LCP policies 5.10.2 and 5.10.3 also require that development be evaluated against the context of the environment, utilize natural materials, blend with the area and integrate with landforms. 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 both natural and visible from the beach. In this case, the project site is located behind a line of existing one-story homes on the coast side of Beach Drive, and adjacent to existing single-family dwellings constructed in the late 1960's.

The upper story of the proposed dwelling will be visible from the open beach at low tides. However, the design of the structure will be integrated into the Beach Drive neighborhood in terms of height, bulk, mass, scale, architectural style, color, and materials. The size of the proposed residence will be similar to recently approved homes. The residence will comply with County standards for lot coverage. A variance has been requested to exceed the allowed floor area ratio by approximately 265 square feet. The 265 square feet that exceed the limit are covered, third floor deck. There is also a small covered deck on the second floor. The need for the variance is evaluated in the next section. However, note that the decks contributes to the design in that stepping back a portion of the second and stepping the entire third floor back breaks up the mass of the residence. In addition, the use of different materials on the bottom floor helps in breaking up the massing.

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 earth-tone colored cement plaster on the top two floors in a light tan to brown color range, stone veneer on the bottom floor and copper roofing to better blend in with the coastal bluff and vegetation behind the residence, minimizing the visual impact of the residence.

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 I). 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 visible from the beach, 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.

County Code 13.10.323(e)5(B) allows for building heights up to a maximum of thirty three (33) feet in height without increased side yard setbacks or a variance approval with a recommendation from the Urban Designer. The proposed single family dwelling meets the required 25 foot height limit with the exception of the roof that hangs over the deck, which is a feature required by the Geotechnical reports and County Geologist. The covered deck is a specific design requirement for "bunker homes" to allow for outdoor space that will be protected from potential landslide debris. The geologic hazards on this property do not allow for use of the side or rear yards therefore outdoor space is limited to the covered decks. Given the geologic constraint and the need for some useable outdoor space, the urban designer has recommended a height up to 29 feet only for the covered deck areas, the remainder of the structure must comply with the 25 foot height limit.

Variances

Number of Stories and Floor Area Ratio

The subject parcel contains 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. As the lower floor area cannot be used as habitable space, a variance has been requested to increase the maximum number of stories from two to three, and to increase the maximum floor area ratio from 50% to about 55% in order to construct a home of a comparable size to adjacent homes on the bluff side of Beach Drive. Furthermore, the Geotechnical and Engineering Geologic reports for the project site require decks to be covered in order to protect occupants from landslide debris. Because covered outdoor space counts toward floor area ratio this requirement contributes to the need for a variance.

The dwelling at 641 Beach Drive was the first structure approved with this design (approved in 1993) and eleven dwellings of a similar design have been approved elsewhere on Beach Drive. Two of these Development Permits were approved with a variance to increase the floor area ratio, resulting in homes of 2,800 and 3,200 square feet respectively. Both of these properties and the subject property have a net site area of less than 5,500 square feet, which is smaller in size than other parcels also located on the bluff side of Beach Drive. "Bunker" homes are typically in the 3,000 to 3,500 square foot range. This number includes the bottom non-habitable floor that complies with FEMA regulations. The proposed 3,035 square foot dwelling, with a net habitable size of 2,100 square feet, is within the size range of homes that have been previously approved and, the floor area ratio included would not be a grant of special privilege.

The 5% variance that is requested represents approximately 265 square feet. The 265 square feet that exceed the limit are covered third floor deck. There is also a small covered deck on the second floor. The location of the property at the base of a coastal bluff does not provide for any usable outdoor space. Outdoor space is therefore limited to decks, which are required to be covered, and which count towards floor area ratio. Regarding the effect of the variance on the

design of the structure, the stepping back of a portion of the second floor and the entire third floor with a deck area, breaks up the mass of the residence and contributes to good design.

In conclusion, the elevation of the structure and the request for floor area ratio increase are driven at least partly by technical recommendations to promote safety, and will not be injurious to property or improvements in the vicinity. This would not be a granting of a special privilege in that the number of stories and size of one home are within the range of what has been previously approved on other lots in the setting, and the strict application of the RB zone district standards would deprive the property owner of home of a similar size and number of stories as those currently under construction on adjacent properties.

Reduced setback to the face of garage

District site standards (County Code 13.10.323) require a twenty-foot minimum setback to a garage or carport entrance for all districts, to allow for off street parking and sight distance. The proposal sets the face of the garage at approximately 10 feet from the edge of Beach Drive right of way and therefore requires a variance to the twenty-foot minimum setback to the garage entrance. The steep slopes and unstable bluff are special circumstances that restrict the garage to the forward part of the property. Any other location would require extensive grading. The proposal requires three off street parking spaces. Two have been provided within the garage and the one outside, which is partially covered, is not within the area of reduced setback. The variance to allow a reduced setback to the garage will not be detrimental to the to public health, safety, or welfare or injurious to property or improvements in the vicinity as there are approximately 19 feet from the edge of the traveled roadway to the face of the garage. Ten of those feet are located entirely outside of the right of way to back out and all parking for the home is out of the right of way. In addition, the variance is not a grant of special privilege, as construction of any home under similar circumstances would be granted a similar variance.

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

- Certification that the proposal is exempt from further Environmental Review under the California Environmental Quality Act.
- **APPROVAL** of Application Number **08-0227,** based on the attached findings and conditions.

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

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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 the property is zoned RB (Residential Beach), a designation which allows residential uses. The proposed Single Family Dwelling is a principal permitted use within the zone district, consistent with the site's (R-UL) Urban Low Density Residential General Plan designation.

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 proposal does not conflict with any existing easement or development restriction such as public access, utility, or open space easements in that no such easements or restrictions are known to encumber the project site. Coastal access for the public is gained through Rio Del Mar State Beach located west of the project site.

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.

This finding can be made, in that 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 house follows the natural topography by stepping up the hillside, proposes minimal grading considering the topography of the site, is visually compatible with the character of the surrounding 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 siting of the proposed residence will minimize impacts on the site and the surrounding neighborhood. The house will incorporate earth-tone colors 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, approximately 3,000 square feet (including the bottom non-habitable floor), is comparable to most of the dwellings along the bluff side of Beach Drive. The structure will be flood elevated, but will meet the 25-foot RB height limit, with the exception of the roof area over the decks, that are required to be covered by the County Geologist. The Urban Designer has recommended approval of up to 29 feet in height for the roof portions that are necessary to cover the decks, the remainder of the structure must comply with the 25-foot height limit. This height is consistent with the existing older development along the bluff of side of Beach Drive, most of which is three stories similar to the proposed dwelling.

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, the project site is located in the appealable area between the shoreline and the first through public road. Public access to the beach is located further up Beach Drive at the State Parks parking lot (about 200 feet northwest of the proposed dwelling). The proposed dwellings will not interfere with public access to the beach, ocean, or any other nearby body of water. The project site is not identified as a priority acquisition site in the County Local Coastal Program, and is not designated for public recreation or visitor serving facilities.

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

This finding can be made, the proposed single-family dwelling is consistent with the County's certified Local Coastal Program in that a single family dwelling is a principal permitted use in the RB (Ocean Beach Residential) zone district with an approved Coastal Development Permit. 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.

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 will be constructed flush with the bluff and the roof of the home will be constructed so that it will resist the impact from a large debris flow landslide. Furthermore the sides of the home will also be designed and constructed to resist the impact form this type of landslide. Thus, in combination the home will be designed to protect it occupants from landsliding. 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 subject lot is located on the bluff side of Beach Drive within a line of existing and proposed single-family dwellings of a similar height. 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 by retaining a similar height, bulk, mass, and scale to existing and recently approved development in the vicinity. The approximately 2,100 habitable square foot size of the structure is consistent with the many of the existing homes on the bluff side of Beach Drive. Dwellings on the beach side of Beach Drive have different site standards and therefore cannot be used to determine compatibility.

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 stone veneers and cement plaster painted in earth-tone colors to

blend in with the bluff behind them.

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 engineering geologic and geotechnical reports have been completed for this project, which analyze the potential geologic hazards and recommend measures to mitigate them.

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 flat reinforced concrete 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 the structure from being displaced by landslide. An engineered foundation is required in order to anchor the dwellings in the event of a landslide impact and to withstand seismic shaking.

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 will incorporate break away garage doors and non-structural walls on the lower level to minimize structural damage from wave action.

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 debris flow and will not adversely affect the adjacent dwellings. The retaining walls incorporated into the design of both dwellings will provide some stability to the toe of the cliff.

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 the project is located within the RB (Ocean Beach Residential) zone district. The proposed dwelling will be consistent with all pertinent County ordinances, site standards, and the purpose of the RB zone district, with the exception of the number of stories, and floor area ratio, and setback to face of garage for which Variances are being sought, and a design review exception to the 25 foot height limit for the covered deck areas. This increase in the number of stories will still allow adequate light, air and open space to adjacent neighbors, as the design of the proposed single-family dwelling is consistent with that of the surrounding neighborhood, as it is visually compatible and integrated with the character of surrounding neighborhood which is also compromised of three story single family dwellings, and meets the intent of County Code Section

13.10.130, "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. The proposed colors and materials and architecture will harmonize and blend with the other homes in this neighborhood. Thus, the design of the proposed single-family dwelling is consistent with that of the surrounding neighborhood. 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 is located in the R-UL (Urban Low Residential) General Plan/Local Coastal Program land use designation. As discussed in Coastal Development Permit Finding 5, all General Plan/LCP policies have been met by 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 surrounding neighborhood on the bluff side of Beach Drive, and is sited and designed to be visually compatible and integrated with the character of surrounding neighborhood and the coastal bluff. The dwelling will not block public vistas to the public beach and will blend with the built environment when viewed from the public beach. The house is designed to step down the slope, which lessens the grading necessary to develop the sloped site. 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 the proposed single-family dwelling will not overload utilities and will not generate more than the acceptable level of traffic on the roads in the vicinity. Specifically, adequate water and sewer service is available to the property and there will be minimal increase in traffic resulting from the construction of one new single family dwelling on a legal lot of record designated for residential use. Traffic generated by construction will be limited to weekdays between the hours of 8 AM and 5 PM and any damage to Beach Drive resulting from heavy equipment will be required to be repaired (Condition of Approval III.H and IV.H).

5. That the proposed project will complement and harmonize with the existing and proposed 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 home will not appear significantly different from the existing newer homes, or future development on the bluff side of Beach Drive which will be bunker style and which will also have non-habitable lower floors and flat roofs. The proposed project will result in a home of a 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 surrounding neighborhood.

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 RB 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 I).

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 and under identical zoning classification.

This finding can be made, in that the subject parcel contains 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. As the lower floor area cannot be used as habitable space, a variance has been requested to increase the maximum number of stories from two to three, and to increase the maximum floor area ratio from 50% to about 55% in order to construct a home of a comparable size to adjacent homes on the bluff side of Beach Drive. Furthermore, the Geotechnical and Engineering Geologist reports for the project site require decks to be covered in order to protect occupants from landslide debris, and covered outdoor space counts toward floor area ratio and results in a floor area ratio in excess of the 50% standard for the RB zone district.

Two of these Development Permits were approved with a variance to increase the floor area ratio, resulting in homes of 2,800 and 3,200 square feet respectively. Both of these properties and the subject property have a net site area of less than 5,500 square feet, which is smaller in size than other parcels also located on the bluff side of Beach Drive. "Bunker" homes are typically in the 3,000 to 3,500 square foot range (includes the bottom non-habitable floor that complies with FEMA regulations). Therefore, the proposed 3,035 square foot dwelling, with a net habitable size of 2,100 square feet, is within the range of homes that have been previously approved. The variance requested to exceed the allowed floor area ratio is approximately 265 square feet. The 265 square feet that exceed the limit are covered third floor deck. There is also a small covered deck on the second floor. The location of the property at the base of a coastal bluff does not provide for any usable outdoor space. Outdoor space is therefore limited to decks, which are required to be covered. Because covered outdoor space counts toward floor area ratio

this requirements contributes to the need for a variance. Strict application of the RB zone district standards would deprive the property owner of home of a similar size and number of stories as existing and those currently under construction on adjacent properties.

The RB zone district allows for there to be no front yard setback requirements when slopes greater than 25% occur within 30 feet of the right-of-way (Section 13.10.323(d)(5)(B) of the County Code) and therefore no front yard setback applies to the house. However, zone district site standards (County Code 13.10.323) require a twenty-foot minimum setback to a garage or carport entrance, to allow for off street parking and sight distance to exit. This finding can be made for a 10 foot rather than 20 foot setback because the steep slopes prevent the structure from being back any further without extensive grading, which would be in conflict with General Plan Policy/LCP 6.3.9 which requires sites be designed to minimize grading. In addition, all off street parking will be provided and no sight distance issues will be created as there are approximately 19 feet from the edge of the traveled roadway to the face of the garage for a car to pull off and onto Beach Drive. Furthermore, a similar variance has been granted to another property in the vicinity under the same circumstances.

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 public health, safety, or welfare or injurious to property or improvements in the vicinity.

This finding can be made, in that 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 increase the floor area ratio to 55% and to construct a 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 accumulate upon it. This design allows for the natural pattern of debris flow and minimizes deflection onto the adjacent properties.

The reduction in the required 20-foot setback to the face of garage will provide the required off street parking. The variance to allow a reduced setback to the garage will not be detrimental to the to public health, safety, or welfare or injurious to property or improvements in the vicinity as there is approximately 19 feet from the edge of the traveled roadway to the face of the garage with 10 of those feet located entirely outside of the right of way to back out and all parking for the home is out of the right of way.

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.

This finding can be made, in that the granting of variances to increase the maximum number of stories from two to three and to increase the maximum floor area ratio to 55% 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 and mitigation measures (such as covered decks) to protect occupants from landslide debris. The dwelling at 641 Beach Drive was the first structure approved with a "bunker" design (approved in 1993), and eleven dwellings of a similar design have been approved elsewhere on Beach Drive. Two of these Development Permits were approved with a variance to increase the floor area ratio, resulting in homes of 2,800 and 3,200 square feet respectively. Both of these properties and the subject property have a net site area of less than 5,500 square feet, which is smaller in size than other parcels also located on the bluff side of Beach Drive. "Bunker" homes are typically in the 3,000 to 3,500 square foot range (includes the bottom non-habitable floor that complies with FEMA regulations). Therefore, the proposed 3,035 square foot dwelling, with a net habitable size of 2,100 square feet, is within the range of homes that have been previously approved, the floor area ratio included would not be a grant of special privilege.

The granting of variance to reduce the 20-foot setback to the face of garage is not a grant of special privilege, as construction of a home under similar circumstance would be granted a similar variance and other homes along this stretch of Beach Drive have been constructed with a reduced setback.

Conditions of Approval

Exhibit A: Project plans, three sheets, prepared by Thatcher and Thompson, dated 8/11/08.
Landscape plan, one sheet, prepared by Ellen Cooper, dated 7/25/08.
Project plans, ten sheets, prepared by Mesti Miller, dated 03/13/09.
Project plans, three sheets, prepared by Robert L. Dewitt, dated 4/17/09.
Topographic map, one sheet, prepared by Bowman & Williams, dated 4/07.

I. This permit authorizes the construction of a 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 a Grading Permit from the Santa Cruz County Building Official.

D. The owner shall execute the attached WAIVER, INDEMNIFICATION, SECURITY, 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 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. Any changes from the approved Exhibit "A" for this development permit on the plans submitted for the Building Permit must be clearly called out and labeled by standard architectural methods to indicate such changes. Any changes that are not properly called out and labeled will not be authorized by any Building Permit that is issued for the proposed development. The final plans shall include the following additional information:

1. Identify finish and color of exterior materials and roof covering for approval by the Zoning Administrator and Urban Designer for visual compatibility with the coastal bluff environment. Colors shall be earth tone in the range of light brown to dark green. This color board must be in 8.5" x 11" format.

a. All windows facing the beach shall utilize non-glare glazing materials.

2. A surveyed civil engineered grading, drainage and erosion control plan shall be submitted for review and approval by Environmental Planning.
   a. The plan shall include existing and proposed contours, with the Base Flood Elevation clearly shown.
   b. Top-of-wall and bottom-of-wall elevations at wall beginning, end and transition points(including the wall located behind the drainage swale at the rear of the house).
   c. Provide grading volume calculations.
   d. Provide a minimum of two civil engineered grading cross sections through the residence. These cross sections should include all required shoring and clearly delineate the base flood elevation.

3. Submit a detailed erosion and sedimentation control plan to be reviewed and accepted by Environmental Planning. The plan shall indicate that prior to the commencement of grading, the Permittees shall delineate the approved construction areas with fencing and markers to prevent land-disturbing activities from taking place outside of these areas. The Erosion and Sedimentation Control Plan shall identify the type and location of the measures that will be implemented during construction to prevent erosion, sedimentation, and the discharge of pollutants during construction. These measures shall be selected and designed in accordance with the California Storm Water Best Management Practices Handbook. Among these measures, the plans shall limit the extent of land disturbance to the minimum amount necessary to construct the project; designate areas for the staging of construction equipment and materials, including receptacles and temporary stockpiles of grading materials, which shall be covered on a daily basis; provide for the installation of silt fences, temporary detention basins, and/or other controls to intercept, filter, and remove sediments contained in any runoff from construction, staging, and storage/stockpile areas; and provide for the replanting of disturbed areas immediately upon conclusion of construction activities in that area. The plans shall also incorporate good construction housekeeping measures, including the use of dry cleanup measures whenever possible; collecting and filtering cleanup water when dry cleanup methods are not feasible; cleaning and refueling constructions equipment at designated offsite maintenance areas; and the immediate clean-up of any leaks or spills..

4. The building plans must include a roof plan and a surveyed contour map of the ground surface, superimposed and extended to allow height measurement of all features. Spot elevations shall be provided at points on the structure that have the greatest difference between ground surface and the highest portion of the structure above. This requirement is in addition to the standard requirement of detailed elevations and cross-sections and the topography of the project site which clearly depict the total height of the proposed structure. Maximum height is 25-feet for the structure and 29 feet for the covered deck areas.

5. The Base Flood Elevation shall be shown on cross-sections and profiles.

6. State the name of the architect or civil engineer that will certify compliance with FEMA Coastal Construction Standards and related County Building Code requirements (including Section 1612.A5 CBC Flood Hazards) at the completion of the project.

7. The lowest structural member of the lowest floor and all elements that function as part of the structure must be elevated above the Base Flood Elevation (21 feet).

8. The foundation and structure attached thereto shall be anchored to prevent floatation, collapse and lateral movement due to the effect of wind and water loads acting simultaneously on all building components. Wind and water loading values shall each have one percent chance of being equaled or exceeded in any given year.

9. The space below the lowest floor shall either be free of obstructions or constructed with non-supporting breakaway walls intended to collapse under wind and water loads without causing collapse, displacement or other structural damage to the elevated portion of the building or supporting foundation system.

10. The use of fill for structural support of buildings, including the parking slab is prohibited. Plans shall show no fill to be placed beneath the slab per Coastal Construction Manual section 6.4.3.3 and County Code section 16.10.070(h)5(vii).

11. Utilities shall not be located within breakaway walls. All utilities below the base flood elevation shall be mounted on structural components only.

12. The parking slab shall be a maximum of 4 inches thick and shall be non-structural. Concrete slab shall be designed to break apart upon impact from storm surges.

13. The plans shall comply with all recommendations provided in the geotechnical engineering and engineering geology reports.

14. Windows along the side of the building in the area of debris impact may be cluster, but may not have dimension(s) greater than 12 inches, and shall be designed for impact.

15. Shoring shall be installed under the continuous inspection of the project engineer, architect, or a designated special inspector.

16. The project geotechnical engineer, or a similar qualified testing laboratory,

shall be employed to provide continuous inspection and testing of all the fill material placed on the site.

17. Include the destination for all excavated material on the plans.

18. Retaining wall on the west shall be moved to be in line with the south face of the second and third floor walls, such that the height does not exceed 25 feet.

C. Submit four copies of the approved Discretionary Permit with the Conditions of Approval attached. The Conditions of Approval shall be recorded prior to submittal, if applicable.

D. Plan review letters shall be required from the soils engineer and project geologist stating that the plans conform to the recommendations in the accepted reports.

E. 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.

F. 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.

G. 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.

H. The two security instruments (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 security requirement.

I. 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.

J. A final landscape plan. This plan shall include the location, size, and species of all existing and proposed trees and plants within the front and side yard setback and shall meet the following 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. The plan shall not include any species listed on the *California Invasive Plant Council List*. Vegetation must be able to survive without irrigation once established.

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.

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

L. The project architect or engineer shall sign a certification prepared by the County Planning Department that indicates that the plan comply with all FEMA regulations.

M. Pay the current fees for Parks and Child Care mitigation for three bedroom(s). Currently, these fees are, respectively, $1,000 and $109 per bedroom.

N. Pay the current fees for Roadside and Transportation improvements for one unit. Currently, these fees total $5,080 per new single-family residence.

O. Provide required off-street parking for three 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.

P. Any new on-site electrical power, telephone, and cable television service connections shall be installed underground.

Q. 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.

R. Obtain a permit from the Monterey Bay Air Pollution District, if required. This permit may require a diesel health risk assessment depending on the equipment used, the timing, and the distance of the construction from the nearest residence.

S. Submit a signed, notarized, and recorded maintenance agreement for the silt & grease traps prior to permit issuance.

T. Submit photos showing the condition of the private portion of Beach Drive past the gate. These photos will be used to determine if any repairs are required to Beach Drive after construction due to construction related damage. Any repair to the public road segment shall be coordinated with the Department of Public Works.

III. Prior to and during site disturbance and construction:

A. Prior to any disturbance on the 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 15th the following year to allow for adequate time to complete grading prior to October 15th

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. These techniques shall comply with the requirements of the Monterey Air Pollution Control District.

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 and holidays.

I. The applicant shall designate a disturbance coordinator and a 24-hour contact number shall be conspicuously posted on the job site. The disturbance coordinator shall record the name, phone number, and nature of all complaints received regarding the construction site. The disturbance coordinator shall investigate complaints and take remedial action, if necessary, within 24 hours of

receipt of the complaint or inquiry.

J. At least one full travel lane shall remain open at all times.

IV. All construction shall be performed according to the approved plans for the Building Permit. 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 permit shall be completed to the satisfaction of the County Building Official.

C. The project must comply with all recommendations of the approved soils reports.

D. The project geotechnical engineer, or a similar qualified testing laboratory, shall submit a written summary of the compaction testing. The summary shall include a copy of the grading plan that indicates the relative compaction test locations. All related test data must be included in a table with a reference number that correlates the table data to the test location on the grading plan. The testing shall include the backfill for any retaining walls.

E. Final letters shall be submitted from the soils engineer and project geologist stating that the completed project conforms to their recommendations.

F. The architect or engineer shall sign a certification form prepared by the County Planning Department stating that the completed project meets all requirements of FEMA for development within the V zone.

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

H. Any damage to Beach Drive caused by construction activities shall be repaired.

V. Operational Conditions

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

EXHIBIT C

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. 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 any use of the roof, side yards and rear yard except for the purpose of maintenance and/or repair of the dwelling.

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 muted 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 actions, up to and including permit revocation.

H. No pile driving shall be permitted.

I. Grading calculations exceeding 1,000 cubic yards shall require in an Initial Study and an Amendment to Coastal Development Permit and suspension of building permit.

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.

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

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 three years from the effective date listed below unless a building permit (or permits) is obtained for the primary structure described in the development permit (does not include demolition, temporary power pole or other site preparation permits, or accessory structures unless these are the primary subject of the development permit). Failure to exercise the building permit and to complete all of the construction under the building permit, resulting in the expiration of the building permit, will void the development permit, unless there are special circumstances as determined by the Planning Director.

Approval Date: _____

Effective Date: _____

Expiration Date: _____

Don Bussey	Porcila Wilson
Deputy Zoning Administrator	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 Zoning Administrator, may appeal the act or determination to the Planning Commission in accordance with chapter 18.10 of the Santa Cruz County Code.

CALIFORNIA ENVIRONMENTAL QUALITY ACT
NOTICE OF EXEMPTION

The Santa Cruz County Planning Department has reviewed the project described below and has determined that it is exempt from the provisions of CEQA as specified in Sections 15061 - 15332 of CEQA for the reason(s) which have been specified in this document.

Application Number: 08-0227
Assessor Parcel Number: 043-152-46
Project Location: No Situs

Project Description: Proposal to construct a three story single family dwelling with a non-habitable lower level (to comply with Federal Emergency Managment Agency flood elevation requirements)

Person or Agency Proposing Project: Hamilton-Swift Land Use c/o Deidre Hamilton

Contact Phone Number: 831-459-9992

A. ____ The proposed activity is not a project under CEQA Guidelines Section 15378.
B. ____ The proposed activity is not subject to CEQA as specified under CEQA Guidelines Section 15060 (c).
C. ____ **Ministerial Project** involving only the use of fixed standards or objective measurements without personal judgment.
D. ____ **Statutory Exemption** other than a Ministerial Project (CEQA Guidelines Section 15260 to 15285).

Specify type:

E. __X__ **Categorical Exemption**

Specify type: Class 3 - New Construction or Conversion of Small Structures (Section 15303)

F. Reasons why the project is exempt:

Proposal to construct a single family dwelling.

In addition, none of the conditions described in Section 15300.2 apply to this project.

_____ Date:_____
Porcila Wilson, Project Planner

EXHIBIT D

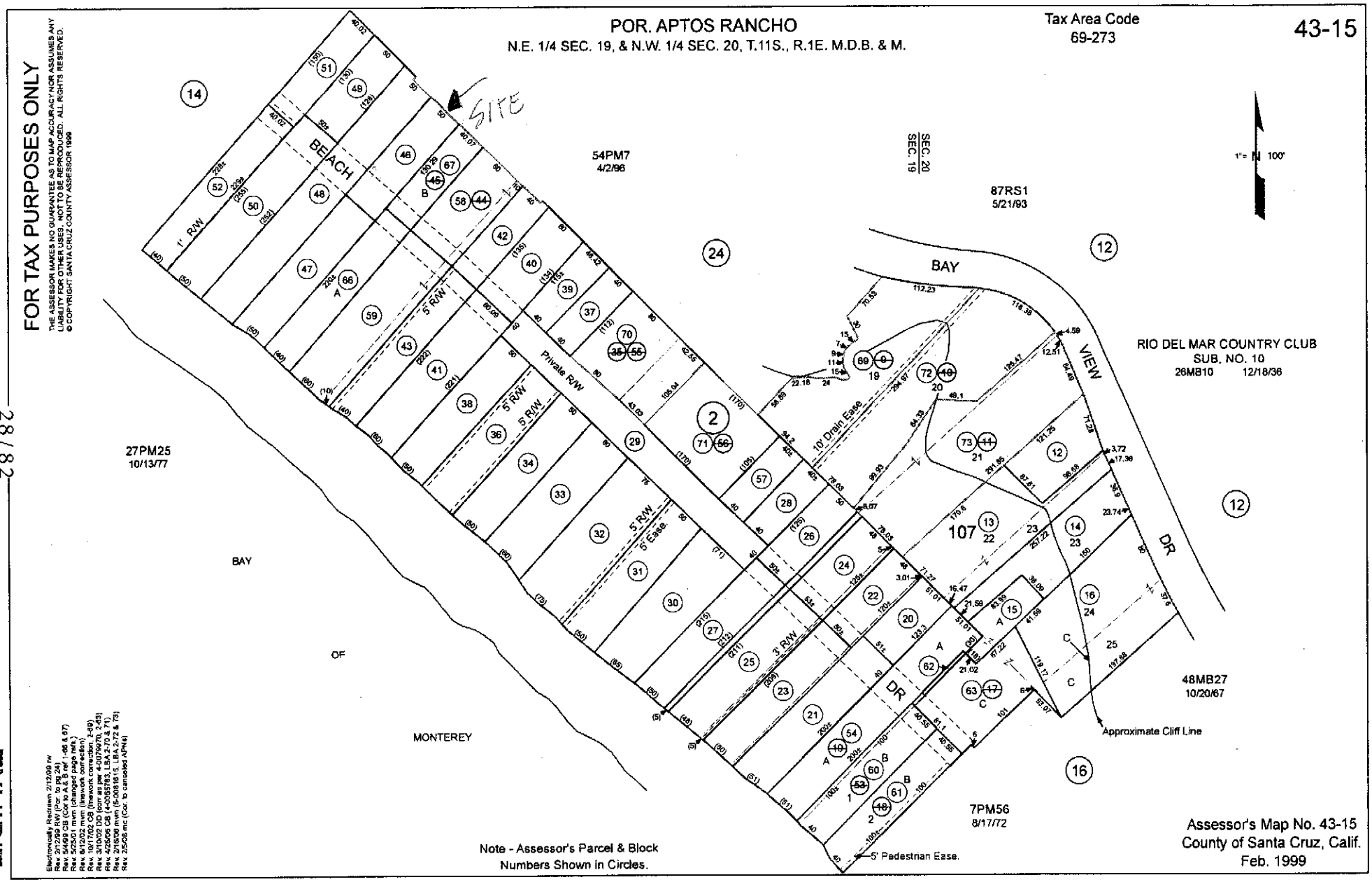

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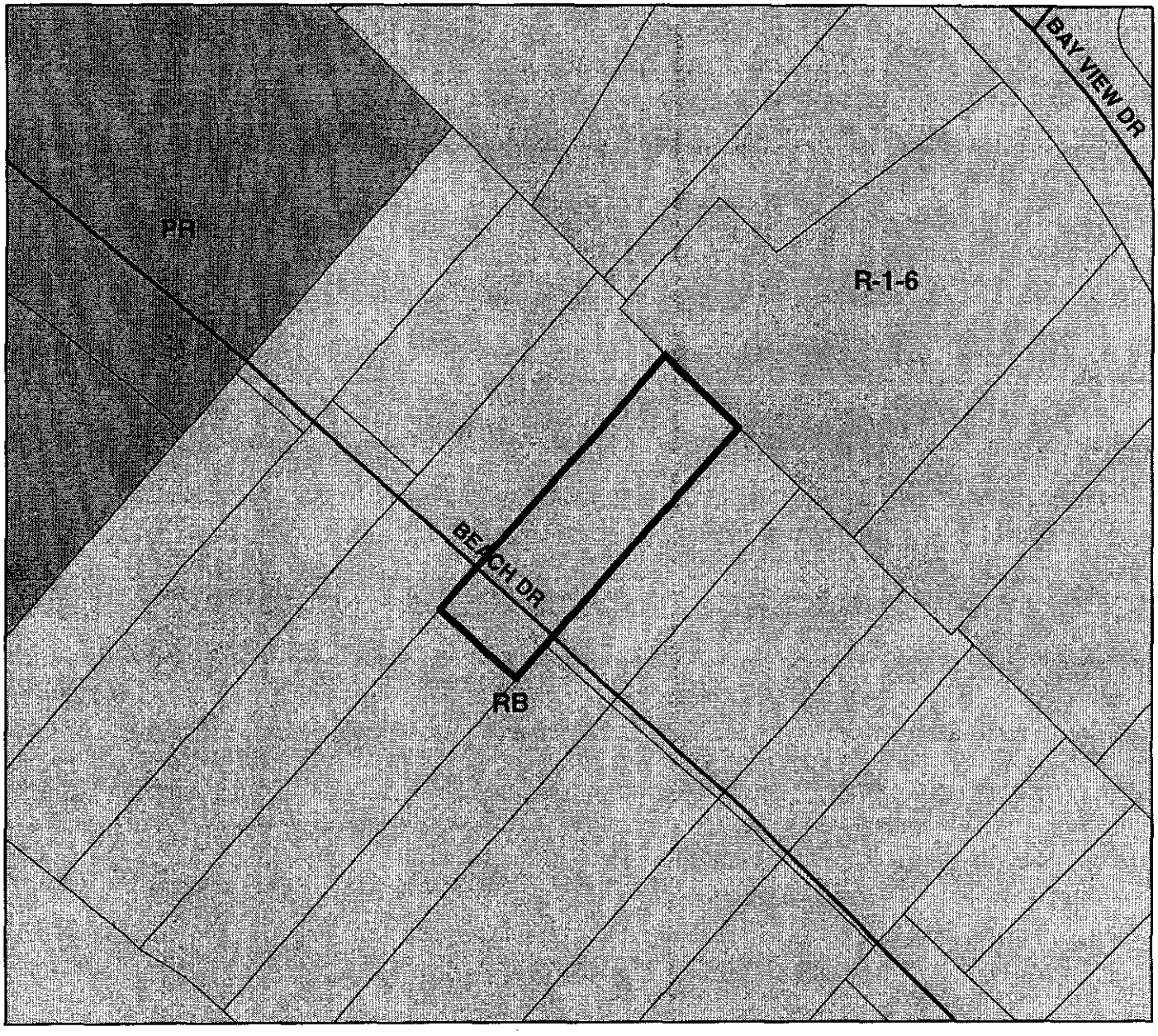
EXHIBIT E

Zoning Map



0 65 130 260 390 520 Feet

LEGEND

- APN: 043-152-46
- Assessors Parcels
- Streets
- RESIDENTIAL-OCEAN BEACH
- PARK
- RESIDENTIAL-SINGLE FAMILY

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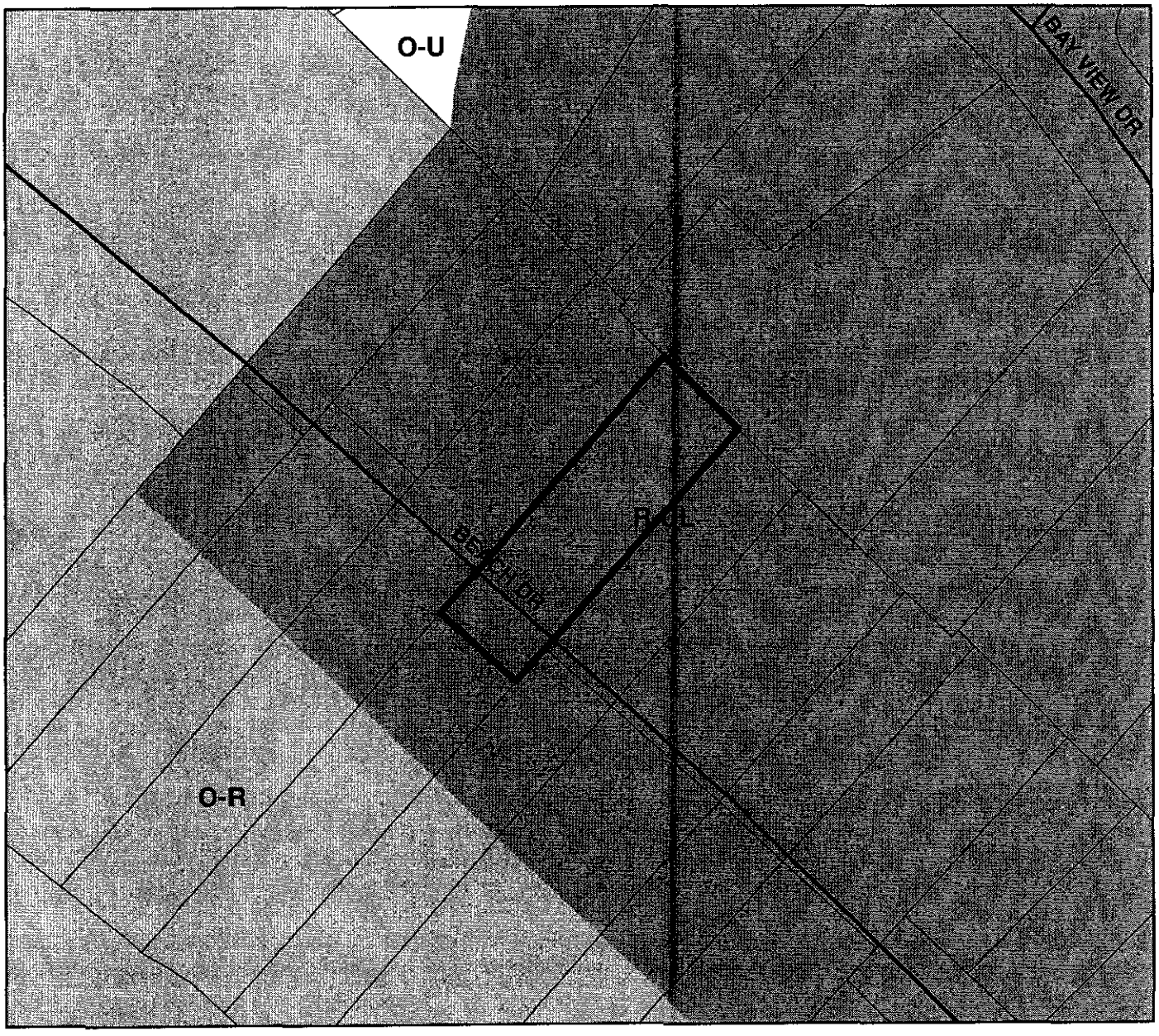
Map Created by
County of Santa Cruz
Planning Department
June 2008

EXHIBIT F

General Plan Designation Map



0 65 130 260 390 520 Feet

LEGEND

- APN: 043-152-46
- Assessors Parcels
- Streets
- Residential - Urban Low Density
- Parks and Recreation
- Urban Open Space

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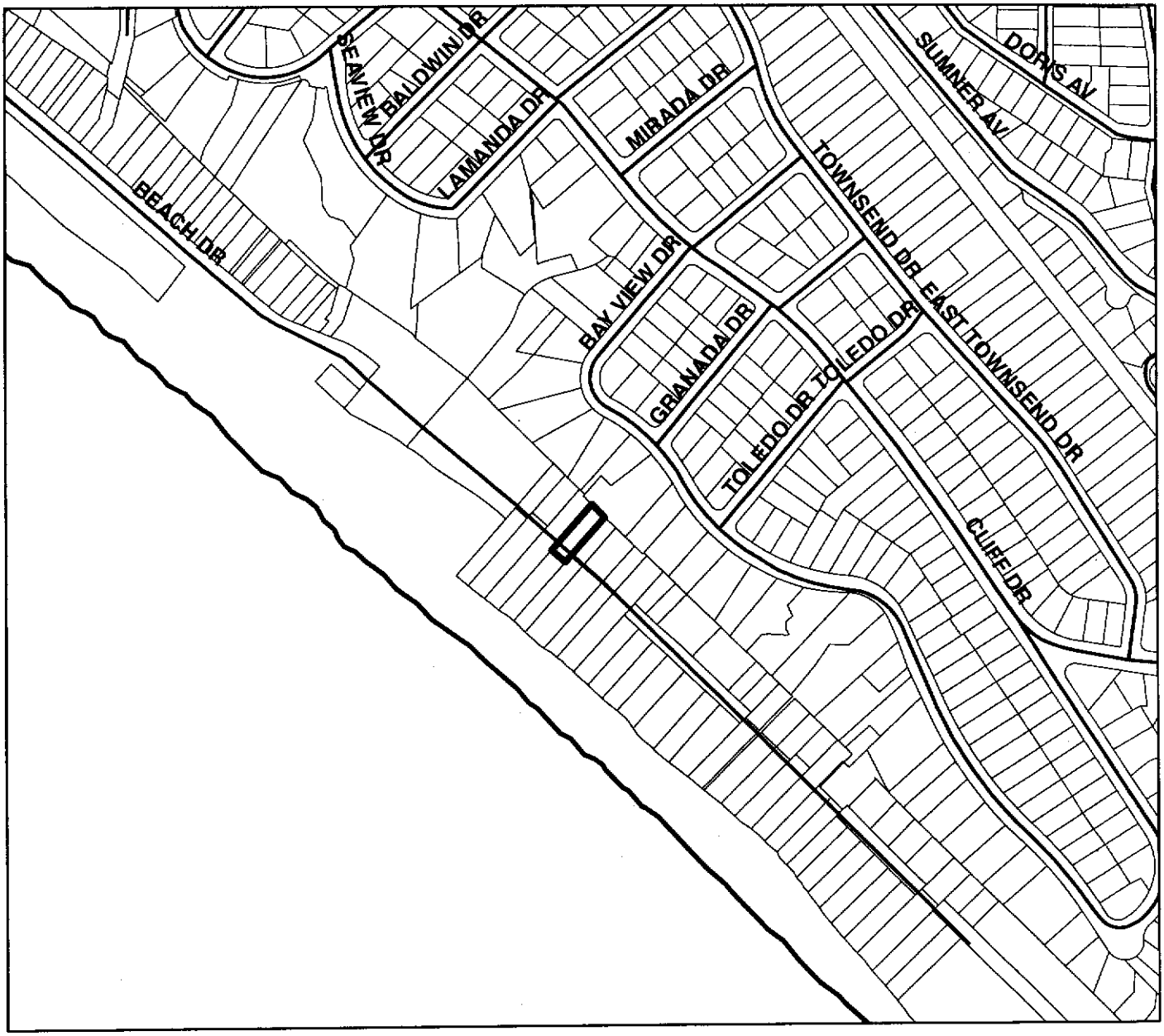
Map Created by
County of Santa Cruz
Planning Department
June 2008

EXHIBIT F

Location Map



0 365 730 1,460 2,190 2,920 Feet

LEGEND

- APN: 043-152-46
- Assessors Parcels
- Streets
- County Boundary

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Map Created by
County of Santa Cruz
Planning Department
June 2008

EXHIBIT G

COUNTY OF SANTA CRUZ
DISCRETIONARY APPLICATION COMMENTS

Project Planner: Maria Perez
Application No.: 08-0227
APN: 043-152-46

Date: May 13, 2009
Time: 08:57:13
Page: 1

Environmental Planning Completeness Comments

========= REVIEW ON JUNE 24, 2008 BY ANTONELLA GENTILE =========
1. The soils and geology reports are still under review. Additional comments may be forthcoming following this review.

2. Please submit a report from a certified arborist that evaluates the health of all trees with a Diameter at Breast Height (DBH) of 6 inches or greater in the vicinity of the proposed new dwelling.The report shall include recommendations for protection of trees that are not proposed for removal with this application.

3. Show the base flood elevation on all elevations and sections.

4. Include a statement on the plans that the project conforms with all FEMA regulations for habitable structures in the V zone. ========= UPDATED ON JUNE 25, 2008 BY CAROLYN I BANTI =========
5. The contours on the grading and drainage plans are screened and are not legible. Please provide a revised copy with enough contrast to clearly depict background features. ========= UPDATED ON SEPTEMBER 10, 2008 BY JOSEPH L HANNA =========
Geology and geotechnical reports completed. Review letter recommendations shall become conditions. ========= UPDATED ON SEPTEMBER 11, 2008 BY CAROLYN I BANTI =========
Grading plan comments addressed. ========= UPDATED ON SEPTEMBER 12, 2008 BY ANTONELLA GENTILE =========
Project complete per Environmental Planning.

Environmental Planning Miscellaneous Comments

========= REVIEW ON JUNE 24, 2008 BY ANTONELLA GENTILE =========
Compliance comments:

All utilities and their components, including the gas and electrical meters, are required to be located above the base flood elevation, on non-breakaway walls or other structural components. As shown on the plans, the gas and electrical meters are located such that at least the bottom of these panels is located below the base flood elevation. The panels must be relocated in order for this project to be approved.

Conditions:

Building plans must reflect the following requirements:

1. State the name of the architect or civil engineer that will certify compliance with FEMA Coastal Construction Standards and related County Building Code requirements (including Section 1612.A5 CBC Flood Hazards) at the completion of the project.

2. Plans shall be prepared that conform with FEMA Coastal Construction standards and County Building Code requirements.

3. The lowest structural member of the lowest floor and all elements that function

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EXHIBIT H

as part of the structure must be elevated one foot above the Base Flood Elevation (21 feet).

4. The foundation and structure attached thereto shall be anchored to prevent flotation, collapse and lateral movement due to the effect of wind and water loads acting simultaneously on all building components. Wind and water loading values shall each have a one percent chance of being equaled or exceeded in any given year.

5. The space below the lowest floor shall either be free of obstructions or constructed with non-supporting breakaway walls intended to collapse under wind and water loads without causing collapse, displacement or other structural damage to the elevated portion of the building or supporting foundation system.

6. The use of fill for structural support of buildings, including the parking slab, is prohibited. Plans shall show no fill to be placed beneath the slab per Coastal Construction Manual section 6.4.3.3 and County Code section 16.10.070(h)5.(vii).

7. An engineered grading, drainage, and erosion control plan shall be submitted for review and approval by Environmental Planning.

8. A shoring plan shall be submitted for review and approval by the County Civil Engineer.

9. Utilities shall not be located within breakaway walls. All utilities shall be raised above the base flood elevation and mounted on structural components only.

10. The parking slab shall be a maximum of 4 inches thick and shall be non-structural. Concrete slab shall be designed to break apart upon impact from storm surges.

11. The plans shall comply with all recommendations provided in the geotechnical engineering and engineering geology reports.

12. Shoring shall be installed under the continuous inspection of the project engineer, architect, or a designated special inspector.

13. The Base Flood Elevation shall be shown on cross-sections and profiles.

14. The project geotechnical engineer, or a similar qualified testing laboratory, shall be employed to provide constant inspection and testing of all the fill material placed on the site.

15. Note the destination of off-hauled material on the grading plans. Note that excess material must be taken to the landfill or another specified County approved location.

16. Plans shall comply with all requirements set forth in the technical report acceptance letter from Joe Hanna, County Geologist, dated 7/27/08.

17. Windows shall have maximum dimensions of 12 inches and shall be designed for impact of landslide debris.

EXHIBIT H

18. Arborist's recommendations for protection and monitoring of tree #3 (18-inch cypress) shall be included on the plans.

Prior to building permit issuance:

19. The project architect or engineer shall sign a certification prepared by the County Planning Department that indicates that the plans comply with all FEMA regulations.

20. Plan review letters shall be required from the soils engineer and project geologist stating that the plans conform to the recommendations in the accepted reports.

21. A Declaration of Geologic Hazards shall be recorded, and a copy of the recorded document shall be submitted to Environmental Planning.

Prior to building permit final:

22. The project geotechnical engineer, or a similar qualified testing laboratory, shall submit a written summary of the compaction testing. The summary shall include a copy of the grading plan that indicates the relative compaction test locations. All related test data must be included in a table with a reference number that correlates the table data to the test location on the grading plan. The testing shall include the backfill for any retaining walls.

23. Final letters shall be submitted from the soils engineer and project geologist stating that the completed project conforms to their recommendations.

24. A final letter shall be submitted from the civil engineer or architectstating that project grading has been completed as shown on the approved grading plan.

25. The architect or engineer shall sign a certification form prepared by the County Planning Department stating that the completed project meets all requirements of FEMA for development within the V zone.

26. A completed Elevation Certificate shall be prepared by the architect or engineer and submitted to Environmental Planning. ========= UPDATED ON SEPTEMBER 11, 2008 BY CAROLYN I BANTI =========

- Compliance Comments - Second Review - Soils and Grading -

None

- Miscellaneous Comments - Second Review - Soils and Grading -

27. Please provide grading cross sections through the residence in both directions. Pad, retaining wall, and flood elevations shall be provided on the cross sections, along with total grading quantities required for the work.

28. Winter grading will not be approved for this project. ========= UPDATED ON SEP-

EXHIBIT H

TEMBER 12, 2008 BY ANTONELLA GENTILE =========
All above conditions shall apply as modified.

This project will result in the removal of a 40-inch cypress and a 16-inch cypress. One 18-inch cypress, approximately 30 feet upslope from the proposed home, will be preserved on this parcel.

Dpw Drainage Completeness Comments

LATEST COMMENTS HAVE **NOT YET** BEEN SENT TO PLANNER FOR THIS AGENCY

========= REVIEW ON JUNE 23, 2008 BY TRAVIS RIEBER =========
1. Who owns the catch basin that runoff is being piped to? Who maintains this system? It is the owners responsibility to get permission to do work on Beach Drive or other private property? Provide a capacity and condition analysis of the offsite routing path to a safe point of release. Provide mitigations and/or upgrades as necessary.

2. Quantify the amount of upslope runoff being intercepted by the proposed retaining wall and directed to the street. Provide a capacity and condition analysis of the offsite routing path to a safe point of release. Provide mitigations and/or upgrades as necessary. It is noted on the plans that the existing catch basin on Beach Drive is filled with sand, who maintains this system?

3. How will standing water be prevented from accumulating in the type II catch basins?

4. Demonstrate that the proposed pipe routing across Beach Drive is feasible given the locations of the existing utilities.

5. At any time prior to the public hearing provide a letter from the geotechnical engineer approving the proposed pervious paver driveway.

Please call the Dept. of Public Works, Storm Water Management Section, from 8:00 am to 12:00 noon if you have questions. ========= UPDATED ON SEPTEMBER 12, 2008 BY TRAVIS RIEBER =========
Previous comments have not been addressed completely.

1. Provide a capacity and condition analysis of the offsite routing path to a safe point of release. Provide mitigations and/or upgrades as necessary. It is noted on the plans that the existing catch basin on Beach Drive is filled with sand, who maintains this system?

2. At any time prior to the public hearing provide a letter from the geotechnical engineer approving the proposed pervious paver driveway and the final drainage plan. ========= UPDATED ON APRIL 7, 2009 BY TRAVIS RIEBER =========
1. The offsite routing path has been changed from the previous submittal. Please provide a tributary drainage area map and calculations demonstrating that the existing 6 inch pipe, provided by the development of APN 043-152-58, has adequate capacity. Please reference the Santa Cruz County Design Criteria for design requirements. The design criteria can be found on the internet at: http://www.dpw.co.santa-

EXHIBIT H

cruz.ca.us/DESIGN%20CRITERIA.PDF

2. This project is being converted to an at cost review. Please deposit $595.00 directly to public works to supplement the previously deposited amount.

Note: All re-submittals shall be made through the Planning Department. Materials left with Public Works may be returned by mail, with resulting delays.

Please call the Dept. of Public Works, Storm Water Management Section, from 8:00 am to 12:00 noon if you have questions. ========= UPDATED ON MAY 13, 2009 BY TRAVIS RIEBER =========
The Combined Drainage Calculations for the lands of Fisher, Bumb, and Hawley dated 4/17/2009 have been received without a tributary drainage area map and incomplete hydrology calculations. The project is complete for the discretionary application stage please see miscellaneous comments for conditions to be met at the building application stage.

Dpw Drainage Miscellaneous Comments

LATEST COMMENTS HAVE **NOT YET** BEEN SENT TO PLANNER FOR THIS AGENCY

========= REVIEW ON JUNE 23, 2008 BY TRAVIS RIEBER =========
1. What is being proposed retention or detention or a combination? Provide construction and sizing details for the proposed system.

2. For fee calculations please provide tabulation of existing impervious areas and new impervious areas resulting from the proposed project. Make clear on the plans by shading or hatching the limits of both the existing and new impervious areas.

Note: A drainage fee will be assessed on the net increase in impervious area. Reduced fees are assessed for semi-pervious surfacing to offset costs and encourage more extensive use of these materials. ========= UPDATED ON SEPTEMBER 12, 2008 BY TRAVIS RIEBER =========
1. How will leaves, twigs, gravel, sand, silt and other debris with a potential to clog perforated pipes be prevented from entering the drainage system? Site plans shall specify required maintenance procedures to assure proper functioning of the proposed drainage system.

2. A minimum 6 inch diameter cleanout reaching the ground surface is required for ends of any perforated line or structural chamber.

3. A recorded maintenance agreement will be required for the proposed retention system. The maintenance agreement form can be picked up from the Public Works office or can be found online at: http://www.dpw.co.santa-cruz.ca.us/Storm%20Water/FigureSWM25.pdf

4. A civil engineer has to inspect the drainage improvements on the parcel and provide public works with a letter confirming that the work was completed per the plans. Upon approval of the project a hold will be placed on the permit to be released once a satisfactory letter is received.

EXHIBIT H

Note: All re-submittals shall be made through the Planning Department. Materials left with Public Works may be returned by mail, with resulting delays.

Please call the Dept. of Public Works, Storm Water Management Section, from 8:00 am to 12:00 noon if you have questions. ========= UPDATED ON APRIL 7, 2009 BY TRAVIS RIEBER =========
1. A recorded maintenance agreement will be required for the proposed retention system and the offsite drainage system along its entire path to the outfall at the beach. Please contact the County of Santa Cruz Recorder-s office for appropriate recording procedure. The maintenance agreement form can be picked up from the Public Works office or can be found online at: http://www.dpw.co.santa-cruz.ca.us/Storm%20Water/FigureSWM25.pdf

2. A civil engineer has to inspect the drainage improvements on the parcel and provide public works with a letter confirming that the work was completed per the plans. The civil engineer-s letter shall be specific as to what got inspected whether invert elevations, pipe sizing, the size of the mitigation features and all the relevant design features. Notes of -general conformance to plans- are not sufficient. An as-built plan may be submitted in lieu of the letter. Upon approval of the project a hold will be placed on the permit to be released once a satisfactory letter is received.

Note: A drainage fee will be assessed on the net increase in impervious area. Reduced fees are assessed for semi-pervious surfacing to offset costs and encourage more extensive use of these materials.

Note: All re-submittals shall be made through the Planning Department. Materials left with Public Works may be returned by mail, with resulting delays.

Please call the Dept. of Public Works, Storm Water Management Section, from 8:00 am to 12:00 noon if you have questions. ========= UPDATED ON MAY 13, 2009 BY TRAVIS RIEBER ========= 1. Provide a tributary drainage area map for the proposed drainage system. Please submit hydrology and pipeline calculations, demonstrating that the pipe sizes are adequate to convey runoff for a 10-year storm event, performed on the County standard spreadsheet Fig. SWM-6. Also describe and show on the plans a safe overflow path for a 25-year storm event.

2. The property owner is responsible for securing easements for construction and maintenance of the proposed drainage system along its entire path to the outfall at the beach.

3. A recorded maintenance agreement will be required for all permanent drainage facilities being constructed onsite and offsite.

4. A drainage fee will be assessed on the net increase in impervious area. Reduced fees are assessed for semi-pervious surfacing to offset costs and encourage more extensive use of these materials.

5. A civil engineer has to inspect the drainage improvements on and off the parcel and provide public works with a letter confirming that the work was completed per the plans. The civil engineer-s letter shall be specific as to what got inspected

EXHIBIT H

whether invert elevations, pipe sizing, the size of the mitigation features and all the relevant design features. Notes of -general conformance to plans- are not sufficient. An as-built plan may be submitted in lieu of the letter. Upon approval of the project a hold will be placed on the permit to be released once a satisfactory letter is received.

Please call the Dept. of Public Works, Storm Water Management Section, from 8:00 am to 12:00 noon if you have questions.

Dpw Road Engineering Completeness Comments

========= REVIEW ON JUNE 23, 2008 BY ANWARBEG MIRZA =========
NO COMMENT

Dpw Road Engineering Miscellaneous Comments

========= REVIEW ON JUNE 23, 2008 BY ANWARBEG MIRZA =========
Project will be reviewed at building application level.

Dpw Sanitation Completeness Comments

========= REVIEW ON JUNE 11, 2008 BY CARMEN M LOCATELLI =========
Sewer service is currently available.

Dpw Sanitation Miscellaneous Comments

========= REVIEW ON JUNE 11, 2008 BY CARMEN M LOCATELLI =========
Proposed location of on-site sewer lateral(s), clean-out(s), and connection(s) to existing public sewer must be shown on the plot plan of the building permit application
Show all existing and proposed plumbing fixtures on floor plans of building application.

Aptos-La Selva Beach Fire Prot Dist Completeness C

LATEST COMMENTS HAVE **NOT YET** BEEN SENT TO PLANNER FOR THIS AGENCY

========= REVIEW ON JULY 3, 2008 BY ERIN K STOW =========
DEPARTMENT NAME:Aptos/La Selva Fire Dept. APPROVED

Aptos-La Selva Beach Fire Prot Dist Miscellaneous

LATEST COMMENTS HAVE **NOT YET** BEEN SENT TO PLANNER FOR THIS AGENCY

========= REVIEW ON JULY 3, 2008 BY ERIN K STOW =========
NO COMMENT

EXHIBIT H

COUNTY OF SANTA CRUZ | Planning Department

INTEROFFICE MEMO

APPLICATION NO: 08-0227

Date: June 25, 2008

To: Porcila Perez, Project Planner

From: Larry Kasparowitz, Urban Designer

Re: New residence at Beach Drive, Aptos

COMPLETENESS ITEMS

- *None*

COMPLIANCE ISSUES

Design Review Authority

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

Design Review Standards

13.20.130 Design criteria for coastal zone developments

Evaluation Criteria	Meets criteria In code (✔)	Does not meet criteria (✔)	Urban Designer's Evaluation
Visual Compatibility			
All new development shall be sited, designed and landscaped to be visually compatible and integrated with the character of surrounding neighborhoods 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 diseased trees, or nuisance species.	✔		
Special landscape features (rock outcroppings, prominent natural landforms, tree groupings) shall be retained.	✔		

EXHIBIT I

Ridgeline Development			
Structures located near ridges shall be sited and designed not to project above the ridgeline or tree canopy at the ridgeline			N/A
Land divisions which would create parcels whose only building site would be exposed on a ridgetop shall not be permitted			N/A
Landscaping			
New or replacement vegetation shall be compatible with surrounding vegetation and shall be suitable to the climate, soil, and ecological characteristics of the area			N/A

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 turnouts, rest stops or vista points			N/A
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)			N/A
Screening and landscaping suitable to the site shall be used to soften the visual impact of development in the viewshed			N/A
Building design			
Structures shall be designed to fit the topography of the site with minimal cutting, grading, or filling for construction			N/A
Pitched, rather than flat roofs, which are surfaced with non-reflective materials except for solar energy devices shall be encouraged			N/A
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			N/A

repeat or harmonize with those in the cluster			
Large agricultural structures			
The visual impact of large agricultural structures shall be minimized by locating the structure within or near an existing group of buildings			N/A
The visual impact of large agricultural structures shall be minimized by using materials and colors which blend with the building cluster or the natural vegetative cover of the site (except for greenhouses).			N/A
The visual impact of large agricultural structures shall be minimized by using landscaping to screen or soften the appearance of the structure			N/A
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 shall be included in site development			N/A
The requirement for restoration of visually blighted areas shall be in scale with the size of the proposed project			N/A
Signs			
Materials, scale, location and orientation of signs shall harmonize with surrounding elements			N/A
Directly lighted, brightly colored, rotating, reflective, blinking, flashing or moving signs are prohibited			N/A
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
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, not 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.			N/A

EXHIBIT 1

Design Review Authority

13.11.040 Projects requiring design review.

(a) Single home 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 Site design.

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 scale	✔		
Parking location and layout	✔		
Relationship to natural site features and environmental influences	✔		
Landscaping			
Streetscape relationship	✔		
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

EXHIBIT

Solar Design and Access			
Reasonable protection for adjacent properties	✔		
Reasonable protection for currently occupied buildings using a solar energy system	✔		
Noise			
Reasonable protection for adjacent properties	✔		

13.11.073 Building design.

Evaluation Criteria	Meets criteria In code (✔)	Does not meet criteria (✔)	Urban Designer's Evaluation
Compatible Building Design			
Massing of building form	✔		
Building silhouette	✔		
Spacing between buildings	✔		
Street face setbacks	✔		
Character of architecture	✔		
Building scale	✔		
Proportion and composition of projections and recesses, doors and 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	✔		

PERMIT CONDITIONS / ADDITIONAL INFORMATION

- *None*

COUNTY OF SANTA CRUZ | Planning Department

MEMORANDUM

Date: October 3, 2008

To: Maria Porcila Perez

From: Lawrence Kasparowitz, Urban Designer

Re: 08-0227 (new single family dwelling on the bluff side of Beach Drive)

County Code 13.10.323(e)5(B) allows for building heights up to a maximum of thirty three (33) feet in height without increased side yard setbacks or a variance approval with a recommendation from the Urban Designer.

I recommend that this design extend over the maximum height limit for the following reasons:

1. These houses are required to have covered decks to protect inhabitants from debris slides.
2. The maximum height limit is 25 feet in this zone.
3. The overhang covering the upper deck is equivalent to an eave.
4. The only part of the structure that is over height is the deck overhang.
5. The overhang only extends into the maximum height limit by approximately four feet.

EXHIBIT I

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

July 27, 2008

Timothy Bumb
1590 Berryessa Road
San Jose, CA 95133

Subject: Geotechnical Engineering Report by Haro, Kasunich, and Associates April 2008, Project Number SC-9597; and **Engineering Geology Report** by Rogers E. Johnson dated May 12, 2008, Job Number C07039-57

Reference: **APN: 043-152-46**
APPL#: 08-0227

Dear Applicant:

The purpose of this letter is to inform you that the Planning Department *has accepted* the subject reports and the following items shall be required:

1. The reports' recommendations become conditions of this permit.
2. Windows maybe clustered, but may not have a width greater than 12 inches, and must be designed for impact of the landslide debris.
3. All shoring shall be installed under the inspection by the project engineer, and/or a designated special inspector.
4. Show the Base Flood Elevation on the building plans cross-sections and profiles, and note the requirement for frangible parking slabs on the foundation plan.
5. The home must be elevated 1 foot above the Base Flood Elevation as recommended in the engineering geology report.
6. The plans must conform to FEMA Coastal Construction standards and related County Building Code requirements (including Section 1612.5 CBC Flood Hazards.)
7. State on the first sheet of the plans the name of the architect or civil engineer who will certify compliance with FEMA Coastal Construction standards and related County Building Code requirements (including Section 1612. 5 CBC Flood Hazards.) The architect or civil engineer must complete the attached "V zone certificate."
8. The project geotechnical engineer, or a similar qualified testing laboratory, must be employed to provide ***continuous inspection*** and testing of all the fill material placed

(over)

EXHIBIT J

on the site. Before final inspection, a written summary of the compaction testing must be submitted to the County. With this summary, a copy of the grading plan must be submitted that indicates the relative compaction tests' location, and all related test data must be included in a table with a reference number that correlates the table data to the test location indicated on the grading plan. This testing includes the backfill of any retaining walls.

9. The attached notice of geologic hazards must be recorded before the final of the building permit.

10. The architect, civil engineer, geotechnical engineer and engineering geologist must all provide final letters that indicate that the home has been constructed in accordance with the recommendations of their respective reports and plans.

11. The consultants must e-mail a PDF of their reports to pln953@co.santa-cruz.ca.us .

Our acceptance of the reports is limited to its technical content. Other project issues such as zoning, fire safety, septic or sewer approval, etc. may require resolution by other agencies.

Please call the undersigned at (831) 454-3175 if we can be of any further assistance.

Sincerely,

Joe Hanna CEG
County Geologist

Kent Edler PE
Civil Engineer

Cc Rogers E. Johnson and Associates
Haro, Kasunich, and Associates

EXHIBIT J

NOTICE TO PERMIT HOLDERS WHEN A SOILS REPORT AND ENGINEERING GEOLOGIST HAVE BEEN PREPARED, REVIEWED AND ACCEPTED FOR THE PROJECT

After issuance of the building permit, the County requires your soils engineer to be involved during construction. Several letters or reports are required to be submitted to the County at various times during construction. They are as follows:

1. **When a project has engineered fills and / or grading,** a letter from your soils engineer must be submitted to the Environmental Planning section of the Planning Department prior to foundations being excavated. This letter must state that the grading has been completed in conformance with the recommendations of the soils report. Compaction reports or a summary thereof must be submitted.

2. **Prior to placing concrete for foundations,** a letter from the soils engineer must be submitted to the building inspector and to Environmental Planning stating that the soils engineer has observed the foundation excavation and that it meets the recommendations of the soils report.

3. **At the completion of construction,** a *final letter* from your soils engineer is required to be submitted to Environmental Planning that summarizes the observations and the tests the soils engineer has made during construction. The final letter must also state the following: "Based upon our observations and tests, the project has been completed in conformance with our geotechnical recommendations."

   If the *final soils letter* identifies any items of work remaining to be completed or that any portions of the project were not observed by the soils engineer, you will be required to complete the remaining items of work and may be required to perform destructive testing in order for your permit to obtain a final inspection.

EXHIBIT J

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

STEPS FOR COMPLETING THE ENCLOSED DECLARATION OF GEOLOGIC HAZARDS

Read the following instructions and carry out all steps. Do not make any alterations to the form, except as allowed by #2 below. FAILURE TO FOLLOW THE INSTRUCTIONS OR ALTERATIONS TO THE FORM WILL RESULT IN A DELAY IN THE ISSUANCE OF YOUR PERMIT.

Read the entire Declaration.

1 Check the information filled in by County staff (ownership, Assessor's Parcel Number, recordation dates, volume and page number and address). IF THERE ARE OMISSIONS, FILL IN THE BLANKS. The information can be found on the recorded deed or in the County Recorder's Office. If you feel there are any other errors, contact Environmental Planning staff for instructions. The form is a formal document and shall not be altered as above. Any unauthorized change(s) will result in an additional delay in processing your permit.

2 Have all owner(s) signatures acknowledged by a notary public. An acknowledgement is a form obtained from the notary verifying that the signatory is the person stated on the Declaration.

3 Take, do not mail, the form and recording fee to:

Office if the County Recorder
County Government Center
701 Ocean Street, Room 230
831) 454-2800

4 Bring or send a copy of the recorded document to:

County of Santa Cruz
Planning Department
701 Ocean Street, 4th Floor
Santa Cruz, Ca. 95060

YOUR PERMIT CANNOT BE APPROVED UNTIL THE ABOVE STEPS ARE COMPLETED. Please call Joe Hanna at 831-454-3175 if you have any questions regarding this form.

(over)

Return recorded form to:
Planning Department
County of Santa Cruz
701 Ocean Street, 4th Floor

Attention: Joe Hanna
County Geologist
831-454-3175

Notice

THIS PAGE ADDED TO PROVIDE ADEQUATE SPACE FOR RECORDING INFORMATION (CALIFORNIA GOVERNMENT CODE §27361.6)

Exhibit

RECORDED AT REQUEST OF:
County of Santa Cruz

WHEN RECORDED MAIL TO:

Santa Cruz County Planning
701 Ocean St.
Santa Cruz, CA 95060

(Space above this line for Recorder's use only)

Note to County Recorder:

Please return to the staff geologist in the Planning Department when completed.

DECLARATION REGARDING THE ISSUANCE OF A DEVELOPMENT PERMIT IN AN AREA SUBJECT TO GEOLOGIC HAZARDS

DECLARATION REGARDING THE ISSUANCE OF A DEVELOPMENT PERMIT IN AN AREA SUBJECT TO GEOLOGIC HAZARDS

The undersigned _____ (names of property owners) (does) (do) hereby certify to be the owner(s) of the real property located in the County of Santa Cruz, State of California, commonly known as _____ _____ (Street address); legally described in that certain deed recorded in Book _____ on Page _____ of the official records of the Santa Cruz County Recorder on _____ (deed recordation date); Assessor's Parcel Numbers 043-152-46.

And, acknowledge that records and reports, filed with the Santa Cruz County Planning Department, indicates that the above described property is located within an area that is subject to geologic hazards, to wit:

> The proposed home will be constructed at the toe of the slope and will be designed so that any landslide debris from the slope above the home will flow onto and around the home without damaging it. The home is also designed to resist wave action and will be raised above the Base Flood Elevation. A **Geotechnical Engineering Report by** Haro, Kasunich, and Associates dated April 2009, Project Number SC9597; and a **Engineering Geology Report** by may 12, 2008, Job Number C07039-57 specify a building envelope and standards for the foundations that reduce the potential damage to the site from flooding, coastal erosion, and slope instability. This property will also be subject to intense seismic shaking.

In addition, having full understanding of said hazards and the proposed mitigation of these hazards, we elect to pursue development activities in an area subject to geologic hazards and do hereby agree to release the County from any liability and consequences arising from the issuance of the development permit.

EXHIBIT J

This declaration shall run with the land and shall be binding upon the undersigned, any future owners, encumbrancers, their successors, heirs, or assignees. This document should be disclosed to the forgoing individuals. This declaration may not be altered or removed from the records of the County Recorder without the prior consent of the Planning Director of the County of Santa Cruz.

OWNER: _____ OWNER: _____
Signature Signature

ALL SIGNATURES ARE TO BE ACKNOWLEDGED BEFORE A NOTARY PUBLIC. IF A CORPORATION, THE CORPORATE FORM OF ACKNOWLEDGEMENT SHALL BE USED.

EXHIBIT J

Liquefaction

Our geologic cross section and data from borings advanced at the base of the coastal bluff indicate about 16 feet of beach sand underlies that part of the parcel fronting Beach Drive. Dupré (1975) indicates there is a high potential for liquefaction in beach sand in Santa Cruz County. No liquefaction or associated effects were noted by Youd and House (1978) resulting from the 1906 San Francisco Earthquake or by Dupré and Tinsley (1998) resulting from the 1989 Loma Prieta Earthquake.

Based on prior investigations in the site vicinity, Haro, Kasunich and Associates indicate the liquefaction potential at the subject property is low, and that the proposed residence will be founded on piers extending below the liquefiable zone and unaffected by liquefaction and/or lateral spreading. We did not observe any springs or streams near the parcel, suggesting tidal fluctuations control the water table gradient. Past experience indicates it is unlikely that the water table gradient will rise high enough to saturate potentially liquefiable near-surface earth materials at the subject property under maximum expected tidal fluctuations. It is our opinion that the liquefaction potential at the subject site is low to moderate.

CONCLUSIONS

The proposed homesite lies at the foot of a steep coastal bluff that has historically experienced small to moderate scale landsliding. Although the slope has been subjected to strong groundshaking following a wet winter (e.g., the 1906 San Francisco earthquake), our investigation suggests that it has not experienced large-scale landsliding. In light of the historical record and the slope stability analysis by Haro, Kasunich and Associates, there is the potential for three types of slope failure at the subject site. There is a low probability for significant, arcuate failures, five feet deep at the base which encompass about 15 feet of the blufftop including the retaining walls and/or hardscape; a low to moderate probability of moderate-scale planar, translational failures about twenty feet deep on the bluff-face resulting from seismic shaking; and a moderate to high probability of shallow, planar, translational landsliding and/or debris flows about ten feet deep on the bluff-face above the dwelling during the lifetime of the proposed development as a result of saturation. In our opinion, the type of failure most likely to occur during the lifetime of the proposed development will be a shallow, translational failure above the proposed residence. This failure will be about ten feet deep and will occur within the colluvium and loose, upper surfaces of the underlying Purisima Formation and marine terrace deposits.

The foundation of the proposed residence will be terraced into the hillside by a series of retaining walls, with the top of the back wall (essentially the roof) at an elevation of 47.5 feet above mean sea level. A shallow translational landslide occurring upslope from the constructed residence might involve up to about 1,500 cubic yards of material.

Material incorporated in debris flows and translational landslides could impact the roof top at velocities of up to about 30 feet per second.

EXHIBIT K

Haro, Kasunich and Associates indicate the potential hazards associated with these bluff failures can be mitigated with proper building and foundation design.

The lower slopes of the subject property may be subject to coastal flooding. Coastal flooding could attain an elevation of between +21.0 and +23.0 feet MSL at the subject property during a 100-year flood. FEMA regulations require all habitable structures to lie at least 1 foot higher than the maximum expected elevation of a 100-year flood. There is a low probability coastal flooding will exceed +23.0 feet MSL in the lifetime of the development. The potential hazard to critical portions of the proposed home can be mitigated with proper building site selection. There is a low to moderate probability that non-critical structures below +23.0 feet MSL will be subject to flooding.

Coastal erosion caused by surf action has virtually been non-existent at the subject property since the late 1930's. The row of homes, Beach Drive, and the seawall on the southeast side of Beach Drive and the broad equilibrium beach southwest of the homes help protect the subject property from wave attack; therefore, the probability of coastal erosion due to wave attack at the subject property is low to moderate.

Haro, Kasunich and Associates indicate liquefiable earth materials lie well above the maximum expected rise in the water table at the subject property; therefore, the probability of liquefaction at the subject property is low.

Based on the information gathered and analyzed, it is our opinion that development of the subject parcel is geologically suitable. Development of the proposed single-family dwelling will probably be subject to "ordinary" risks (as defined in Appendix B) if our recommendations are followed. Appendix B should be reviewed in detail by the property owner to determine whether this risk as defined in the appendix is acceptable. If this level of risk is unacceptable to the property owner, then the risk should be further mitigated to an acceptable level.

RECOMMENDATIONS

1) The building and foundation design jointly developed by Haro, Kasunich and Associates and Mesiti-Miller Engineering should be implemented.

2) The lowest habitable floor and all critical utility connections should lie at a minimum elevation of +24. MSL.

3) The procedures and practices regarding the maintenance of hillside homesites presented in Appendix C herein should be followed.

4) Runoff should not be allowed to accumulate at the uphill wall of the residence or at the base of the slope. Runoff should also not be directed along the sides of the residence or at the toe of the slope.

5) The seismic parameters, debris volume estimates and debris flow impact velocities presented in this report should be made available to architects and engineers for their use in designing the proposed dwelling.

6) We recommend the homeowner implement the simple procedures outlined in Peace of Mind in Earthquake Country by Peter Yanev for improving the home's strength and safety in a large earthquake. This book contains a wealth of information regarding seismic design and precautions the homeowner can take to reduce the potential for injury, property damage, and loss of life.

Injury and loss of life during large earthquakes results mainly from falling objects, overturned furniture and appliances, and fires caused by severed utility lines. The majority of damage in the City of San Francisco in the 1906 earthquake resulted from the fires that burned out of control for weeks after the quake. Securing furniture and large appliances to the floor or structural components of the building will help to reduce this risk.

INVESTIGATION LIMITATIONS

1. The conclusions and recommendations contained herein are based on probability and in no way imply that the proposed development will not possibly be subjected to ground failure, seismic shaking or landsliding of such a magnitude that it overwhelms the site. The report does suggest that using the site for residential purposes in compliance with the recommendations contained herein is an acceptable risk.

2. This report is issued with the understanding that it is the duty and responsibility of the owner or his representative or agent to ensure that the recommendations contained in this report are brought to the attention of the architect and engineers for the project, incorporated into the plans and specifications, and that the necessary steps are taken to see that the contractor and subcontractors carry out such recommendations in the field.

3. If any unexpected variations in soil conditions or if any undesirable conditions are encountered during construction, Rogers E. Johnson and Associates should be notified so that supplemental recommendations may be given.

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, 1989) as a siltstone/sandstone. The Purisima formation along the base of the Beach Drive bluff consists of very dense, silty sand with very little cementation. Pier drilling below the average groundwater elevation of 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. We have recently observed the use of a small vibratory hammer in conjunction with a conventional drill rig to drill foundation piers at seven Beach Drive project sites. All pier holes were first predrilled to design diameter. The excavator mounted vibratory hammer was then used to effectively seat the casing into the Purisima Formation in order to minimize heaving of the bottom. Pile driving or the use of vibratory hammers without predrilling to design pier diameter is not recommended.

The residential structure will be elevated above the FEMA Base Flood Elevation, 21 feet NGVD. The entrance driveway and the seaward portion of the understory for the proposed residence will be situated upon about 16 feet of beach sand, talus deposits, and roadway fill. During a severe seismic event the soil materials within the wave cut platform area of the site development may settle due to either dry seismic consolidation and/or liquefaction.

EXHIBIT L

The vertical bearing of the proposed residence will not be affected by either liquefaction or lateral spreading provided the piers are designed per our geotechnical recommendations. During severe seismic shaking, we do expect the driveway and possibly the understory frangible parking slab on grade to be damaged and need to be repaired or replaced. To minimize settlement and maintenance from normal usage, we recommend the driveway area subgrade soils plus 3 feet horizontally in all directions on property be redensified to a depth of at least 12 inches to at least 95 percent relative compaction. Per FEMA guidelines the understory frangible slabs on grade will be displaced during a design storm event, allowing flood waters to flow through the foundation systems with minimal obstruction and wave deflection. The driveway and parking slab on grade at the residence is expected to be undermined, lost and replaced during the design life of the structure.

The void spaces between the completed residence and the side yard temporary shoring walls should be backfilled with either engineered fill compacted to at least 90 percent relative compaction or lean concrete grout/control density fill.

We recommend the proposed structure be constructed to withstand impact and debris loads from the inevitable future slope failures occurring above the completed residence. 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.

EXHIBIT L

Due to the transition within the building envelope from the infilled wave cut platform to undisturbed, dense native soil and to comply with the FEMA requirement that the residence be supported by an open foundation system, it will be necessary to support the structure on a drilled pier foundation system. The seaward piers will penetrate the beach sand and fill materials. 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.

During construction of the residence, it will be necessary to temporarily shore the excavated backslope as well as portions of the side yard talus slopes. The talus deposits above the proposed residence are loose and not cemented. The loose sandy soils can be expected to slough when cut at near vertical. We will work with the project earthwork contractor and engineering geologist during construction to evaluate the upslope talus deposit wedge prior to final design of the temporary shoring system. Chemical grouting may be a means to minimize sloughing of vertical cuts in the talus deposits during temporary shoring construction.

Our geotechnical recommendations for the design of the proposed residence are based upon the need for the proposed structure to withstand and survive future landsliding of the bluff above the residence as well as predicted coastal flooding. If all 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," as defined 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 and Engineered Fill

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-Current.

EXHIBIT L

3. Areas to be graded should be cleared of all obstructions including loose fill, 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, including the void spaces between the completed residence and the sideyard temporary shoring walls, 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 suitable moisture content for compaction. These areas may then be brought to design grade with engineered fill.

6. Engineered fill 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 structures and the hillside, engineered fill

EXHIBIT L

requirements will be prepared on a specific basis during the final structural engineering design process. The aggregate base below 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. Import soils utilized as engineered fill at the project site should:

1) Be free of wood, organic debris and other deleterious materials;

2) Not contain rocks or clods greater than 2.5 inches in any dimension;

3) Not contain more than 25 percent of fines passing the #200 sieve;

4) Have a Sand Equivalent greater than 18;

5) Have a Plasticity Index less than 18;

6) Have an R-Value of not less than 30; and

7) Be approved by the project geotechnical engineer. Contractor should submit to the geotechnical engineer samples of import material or utility trench backfill for compliance testing a minimum of 4 days before it is delivered to job site.

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

EXHIBIT

9. We recommend a maximum vertical height of five (5) feet for temporary cut slopes. The bluff face talus deposits, consisting of loose sandy soils, can be expected to slough when cut at near vertical. We will work with the project earthwork contractor and engineering geologist during construction to evaluate the upslope talus deposit wedge prior to final design of the temporary shoring system. Chemical grouting may be a means to minimize sloughing of vertical cuts in the talus deposits during temporary shoring.

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.

Temporary Shoring

12. The bluff toe is to be supported during building pad excavation with an engineered shoring system to prevent failure of the cut slopes during construction. Top down construction is required. The shoring plan prepared by the project structural engineers should be reviewed by the project geotechnical engineer, the project engineering geologist and the Santa Cruz County Building Department.

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13. Our minimum geotechnical requirements for temporary shoring plan components necessary to stabilize the bluff toe excavation during construction are as follows:

a. Owner to provide vertical and horizontal elevation control for the temporary bluff face and side yards shoring walls construction. Project surveyor should verify bluff face temporary shoring pier locations prior to pier drilling;

b. Geotechnical engineer should verify pier depths and diameters prior to placement of steel and concrete;

c. The temporary shoring soldier beam pier holes should be backfilled above the structural concrete pier embedment sections with a controlled density fill material consisting of sand and cement with not less than two (2) 94 pound bags of cement per cubic yard of sand. The pier holes should be backfilled immediately after placement of the structural concrete. The backfilled pier holes above the structural concrete are then to be excavated as needed to accommodate the temporary shoring wall lagging as the lagging is placed from the top to the base of the temporary shoring walls;

d. The initial temporary excavation into the slope should be limited to a vertical cut of five (5) feet or less in height or to the top of any tieback locations, which ever is less. Lagging should be installed for the height of the initial vertical cut. The void space between the lagging and the cut slope should be backfilled with either controlled density fill material consisting of sand and cement with not

EXHIBIT L

less than two (2) 94 pound bags of cement per cubic yard of sand or neat cement *or pressure grouted with neat cement prior to further excavation;*

e. Below initial vertical cut, excavate and place lagging at one (1) foot intervals;

f. Place lagging to no more than two (2) feet below tiebacks prior tensioning tiebacks to temporary lock off loads of at least 30% of Design Loads (DL). A curing time of at least three calendar days is anticipated prior to temporary lock off loading;

g. No more than five (5) vertical feet of lagging is to be placed until the void space between the lagging and the cut slope is pressure grouted with neat cement;

h. Tieback installation, grouting and testing should be observed by the project geotechnical engineer; and

i. Permanent bluff face wall is to be installed, with all tiebacks tensioned to design loads accommodating active earth pressures and seismic surcharge, prior to 15 October, the start of the Santa Cruz County winter grading season.

Foundations

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

EXHIBIT

Drilled Piers

15. Drilled piers should be at least 24 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 sandstone bluff face as delineated on the Rogers E. Johnson and Associates Geologic Cross-Section.

16. At 8 feet embedment into undisturbed sandstone, an allowable vertical bearing capacity of 12.5 ksf may be used for normal loading (Factor of Safety = 3.0) as defined in the US Army Corps of Engineers Design of Pile Foundations dated 1993. For unusual loading, including earthquake and wind loads (Factor of Safety = 2.25) an allowable vertical bearing capacity of 16.6 ksf may be used in the drilled pier design. The bottom of the pier excavations should be clear of debris. Pier drilling below the average groundwater elevation of 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 reduce the potential for saturated sands to flow into the pier excavations prior to concrete placement. We will work will the project structural engineer to increase pier bearing capacities by increasing pier embedment, as needed, during the design phase of the project.

17. 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

EXHIBIT

between the top of the passive zone and the surface of the engineering geologists' undisturbed Purisima Formation slope boundary should also be maintained. From -1 foot to -4 feet below the aforementioned horizontal setback, a lateral passive lateral resistance of 500 pcf (efw) acting on 2 pier diameters may be used. Below -4 feet, a passive lateral resistance of 600 pcf (efw) acting on 3 pier diameters may be used for structural design.

18. 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 Purisima sandstone delineated on the Geologic Cross Section.

Retaining Walls and Lateral Pressures

19. Retaining walls for the proposed residence should be designed to resist both lateral earth pressures and a seismic surcharge load. Cantilever or unrestrained bluff face 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 bluff face 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

EXHIBIT L

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.

20. Within the active zone, a seismic surcharge of 18H/ft should be utilized in design of the retaining walls representing a seismic coefficient derived from the "Estimated Mean + One Dispersion Ground Acceleration". The resultant of the seismic loading should act at 0.6H, where H is the height of the wall.

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

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

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

24. 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.

EXHIBIT

Tieback Anchors

25. 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.

26. 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.

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

28. A working shaft bond friction of 2,500 psf between the Purisima Formation and non-pressure grouted 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.

29. The maximum bond strength/design load should not exceed 100,000 pounds. The maximum test load should not exceed 133,000 pounds.

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

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31. All tiebacks should permanently stressed to at least 60 percent of their design load or as directed by the project structural engineer. In addition, all tiebacks must be tested by the contractor per methodology outlined in the current edition of the Post Tensioning Institute – Recommendations for Prestressed Rock and Soil Anchors in the presence of the geotechnical engineer. Any tiebacks that fail during testing must be replaced and re-tested by the contractor.

32. All tieback anchor systems must be corrosion protected and reviewed by the project structural engineer and the project geotechnical engineer before the contractor purchases and installs them.

Landslide Debris - Dead Loads

33. 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).

34. We recommend designing the sidewalls and windows below 13.5 feet above finish sideyard grade 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. During the design process, we will work with the project design team to specify sidewall debris loading relative to a working design.

EXHIBIT L

Lateral Spreading Active Force

35. The seaward perimeter (only) foundation system piers for the proposed residence 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 at 0 feet NGVD up to an elevation of +6 feet NGVD.

Parking Slab on Grade

36. As outlined in the FEMA Coastal Construction Manual, see Figures 24 to 27, parking may be facilitated by use of an unreinforced slab, supported directly on the soil present at the site.

37. 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.

38. For design of the driveway parking area, we recommend the proposed pavement section, unreinforced frangible concrete slab or paving blocks be supported by at least 12 inches of the redensified soils compacted to at least 95 percent relative compaction. As per FEMA guidelines, the understory slabs on grade can be displaced during a design storm event, allowing flood waters to flow through the foundation system with minimal

obstruction and wave deflection. The parking platforms are expected to be undermined, lost and replaced during the design life of the structure.

39. Where floor dampness must be minimized or where floor coverings will be installed, concrete slabs-on-grade should be constructed on a capillary break layer at least 4 inches thick, covered with a membrane vapor retarder. Capillary break material should be free-draining, clean, angular gravel such as 3/4-inch drainrock. The gravel should be washed to remove fines and dust prior to placement on the slab subgrade. The vapor retarder should be a high quality membrane at least 10 mil thick and puncture resistant. An acceptable product for use as a vapor retarder is the Stego Wrap 10-mil Class A vapor retarder system manufactured by Stego Industries, LLC. Provided the Stego Wrap system is installed per manufacturers' recommendations, the concrete may be poured directly upon the Stego Wrap Vapor Retarder. The primary considerations for installing the vapor retarder are: taping all seams; sealing all penetrations such as pipe, ducting, wire, etc; and repairing all punctures.

40. It should be clearly understood concrete slabs are not waterproof, nor are they vapor-proof. The aforementioned moisture retardant system will help to minimize water and water vapor transmission through the slab; however moisture sensitive floor coverings require additional protective measures. Floor coverings must be installed according to the manufacturer's specifications, including appropriate waterproofing applications and/or any

recommended slab and/or subgrade preparation. Consideration should also be given to recommending a topical waterproofing application over the slab

Site Drainage

41. An erosion control and drainage plan should be prepared for the project. The plan should be reviewed and approved by the project geotechnical engineer and engineering geologist. Because of the potential slope instability and coastal flooding hazard at the site, erosion control and drainage systems will need to be maintained, repaired and replaced in the future after instability occurs.

42. We recommend a concrete v-ditch be constructed at the top of the uppermost retaining walls 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.

Plan Review, Construction Observation and Testing

43. 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

EXHIBIT L

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 L

LIMITATIONS AND UNIFORMITY OF CONDITIONS

1. The recommendations of this report are based upon the assumption that the soil conditions do not deviate from those disclosed in the borings. If any variations or undesirable conditions are encountered during construction, or if the proposed construction will differ from that planned at the time, our firm should be notified so that supplemental recommendations can be given.

2. This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information and recommendations contained herein are called to the attention of the Architects and Engineers for the project and incorporated into the plans, and that the necessary steps are taken to ensure that the Contractors and Subcontractors carry out such recommendations in the field. The conclusions and recommendations contained herein are professional opinions derived in accordance with current standards of professional practice. No other warranty expressed or implied is made.

3. The findings of this report are valid as of the present date. However, changes in the conditions of a property can occur with the passage of time, whether they be due to natural processes or to the works of man, on this or adjacent properties. In addition, changes in applicable or appropriate standards occur whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated, wholly or partially, by changes outside our control. Therefore, this report should not be relied upon after a period of three years without being reviewed by a geotechnical engineer.

EXHIBIT L

BUMB RESIDENCE

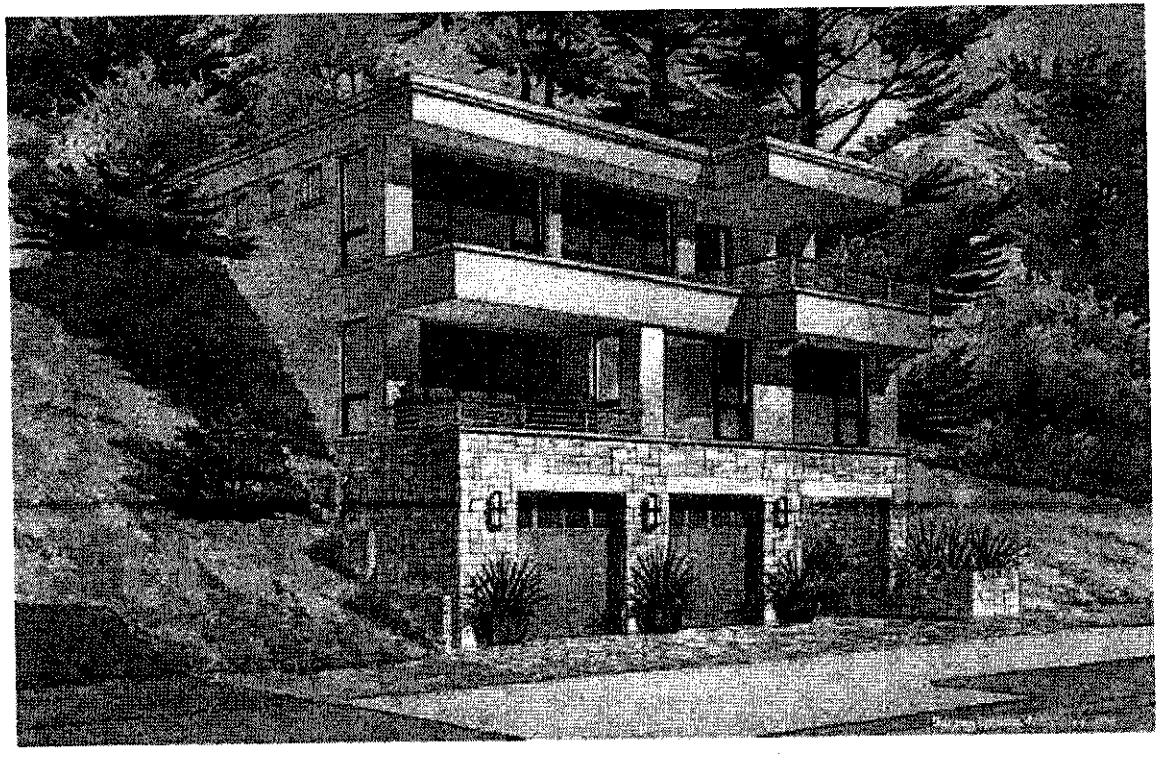

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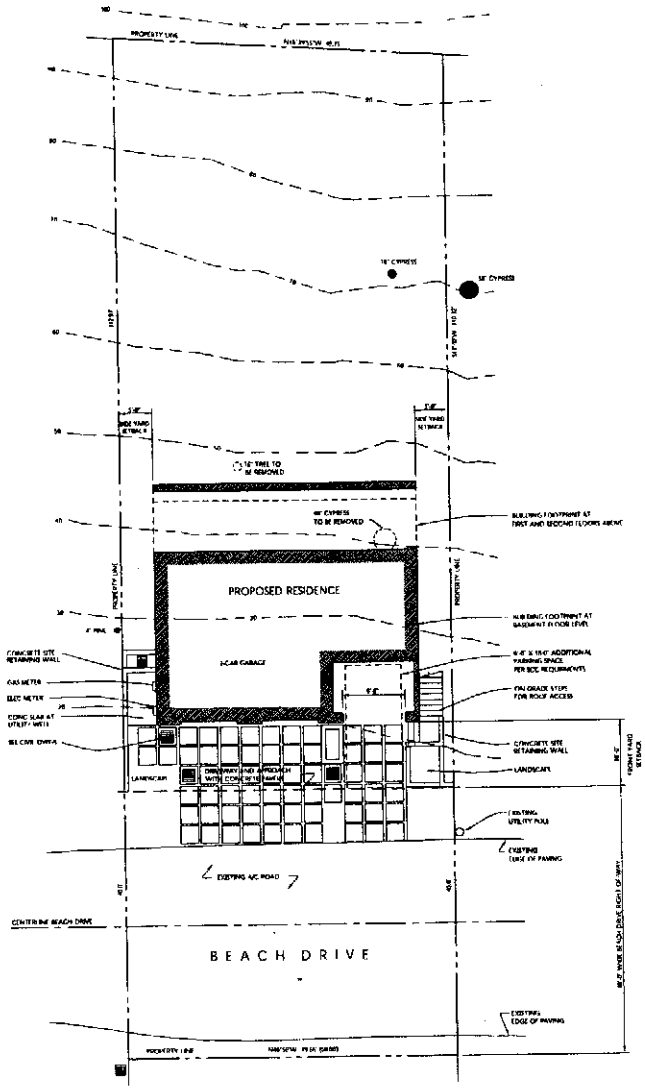
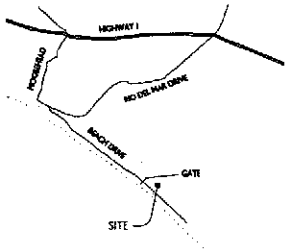
EXHIBIT M



VICINITY MAP



GENERAL NOTES

1. THIS PROJECT CONFORMS WITH ALL FEMA REGULATIONS FOR HABITABLE STRUCTURES IN THE V ZONE.

SHEET INDEX

PROJECT DATA

PROJECT DESCRIPTION:	PROPOSED NEW CONSTRUCTION OF A SINGLE FAMILY RESIDENCE, 2-STORY WITH BASEMENT, 2 CAR GARAGE, 3 BEDROOM, 2 1/2 BATH, AND SITE IMPROVEMENTS ON AN UNDEVELOPED PARCEL.
APN:	043 - 152 - 46
PROJECT ADDRESS:	23724 BEACH DRIVE APTOS, CA
ZONING:	RB/COASTAL
AREA OF PACEL:	0.168 ACRES (7,326 S.F.)
PROPOSED BUILDING AREA:	TOTAL CONDITIONED AREA: 2,200 SQ FT (WITH 536 GARAGE)
PROPOSED BUILDING AREA: (PER SANTA CRUZ COUNTY DEFINITION)	SEE FLOOR AREA CALCULATIONS AND BREAKDOWN WITH F.A.R. AND LOT COVERAGE CALCS
BUILDING CODE OCCUPANCY GROUP:	R-3
BUILDING CODE CONSTRUCTION TYPE:	V-N

PROJECT CONTACTS

PROPERTY OWNER:	TIMOTHY BUMB 1590 BERRYESSA ROAD SAN JOSE, CALIFORNIA 95133 T: (408) 453-1116
ARCHITECT:	THACHER & THOMPSON 200 WASHINGTON ST. #201 SANTA CRUZ CA 95060 TOM THACHER (831) 457-2030
SURVEYOR:	BOWMAN AND WILLIAMS (DUNBAR) 1011 CEDAR STREET SANTA CRUZ, CA 95060 (831) 426-1533
GEOTECHNICAL ENGINEER:	HARO KASUNICH AND ASSOCIATES, INC. 116 EAST LAKE AVENUE WATSONVILLE, CA 95076 (831) 722-4175
GEOLOGIST:	ROGERS E. JOHNSON & ASSOCIATES 418 HANGER WAY WATSONVILLE, CA 95076 (831) 728-7200
STRUCTURAL / CIVIL ENGINEER:	MESITTI MILLER & ASSOCIATES ATTN: DALE HENDRICKS 224 WALNUT AVENUE SANTA CRUZ, CA 95060 (831) 426-3165
LAND PLANNER:	HAMILTON & SWIFT DEIDRE HAMILTON LAND USE & DEVELOPMENT CONSULTANTS, INC. 500 CHESTNUT STREET, SUITE 100 SANTA CRUZ, CA 95060 (831) 458-8992
LANDSCAPE ARCHITECT & ARBORIST:	ELLEN COOPER 612 WINDSOR ST. SANTA CRUZ, CA 95062 (831) 426-6845

SCALE: 1/8" = 1'-0"

A1

SITE PLAN AND COVER SHEET

BUMB RESIDENCE - 23724 BEACH DRIVE

THACHER & THOMPSON ARCHITECTS

MAY 19, 2008
REV. AUG. 11, 2008

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EXHIBIT F

AREA CALCULATIONS

LOT COVERAGE CALCULATIONS

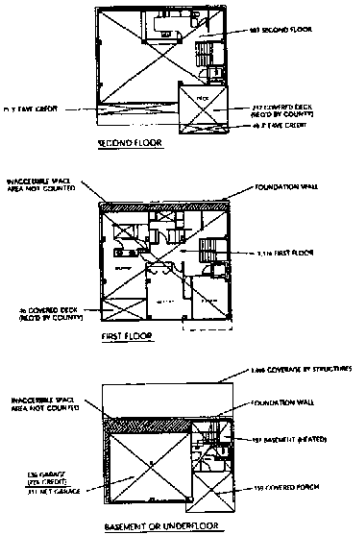
1.	ZONE DISTRICT	R-B (COASTAL ZONE)
2.	PARCEL AREA	7,525 S.F.
3.	AREA OF RIGHTES OF WAY	1,986 S.F.
4.	NET PARCEL AREA	5,540 S.F.
5.	COVERAGE BY STRUCTURES	1,486 S.F.
6.	PERCENTAGE OF PARCEL COVERAGE	26.8%

HEATED SPACE CALCULATIONS

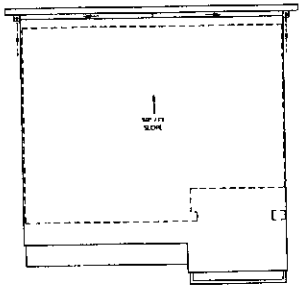
1.	TOTAL HEATED SPACE	2,300 S.F.
2.	TOTAL UNHEATED SPACE	538 S.F.

FLOOR AREA CALCULATIONS BY TYPE OF SPACE

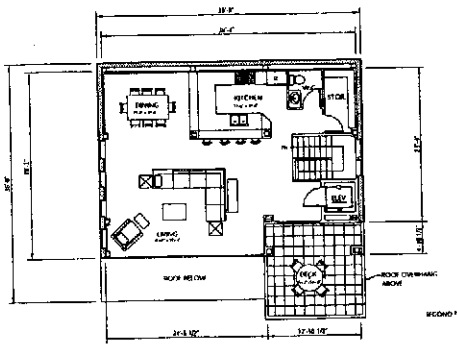
1.	BASEMENT OR UNDERFLOOR		
	A. TOTAL BASEMENT OR UNDERFLOOR AREA GREATER THAN 5'-0" IN HEIGHT		
	EXISTING		0
	PROPOSED	197 S.F.	
	TOTAL	197 S.F.	
2.	FIRST FLOOR		
	A. AREA W/ CEILINGS < 16' IN HEIGHT		
	EXISTING		0 SF
	PROPOSED	1,116 S.F.	
	B. AREA W/ CEILINGS 16-24' IN HEIGHT X 2		
	EXISTING		0
	PROPOSED		0
	C. AREA W/ CEILINGS >24' IN HEIGHT X 3		
	EXISTING		0
	PROPOSED		0
	D. TOTAL FIRST FLOOR AREA (A+B+C)	1,116 S.F.	
3.	SECOND FLOOR		
	A. AREA W/ CEILINGS < 16' IN HEIGHT		
	EXISTING		0
	PROPOSED	987 S.F.	
	B. AREA W/ CEILINGS 16-24' IN HEIGHT X 2		
	EXISTING		0
	PROPOSED		0
	C. AREA W/ CEILINGS >24' IN HEIGHT X 3		
	EXISTING		0
	PROPOSED		0
	D. TOTAL SECOND FLOOR AREA (A+B+C)	987 S.F.	
4.	GARAGE		
	A. TOTAL GARAGE AREA		
	EXISTING		0
	PROPOSED	536 S.F.	
	TOTAL	536 S.F.	
	B. 225 SF CREDIT	(225 S.F.)	
	C. TOTAL GARAGE AREA (A-B)	311 S.F.	
5.	UNENCLOSED COVERED AREAS		
	A. TOTAL AREA BELOW EAVE, OVERHANG, PROJECTION, OR DECK > 7'-6" IN HEIGHT		
	EXISTING		0
	PROPOSED	545 S.F.	
	TOTAL	545 S.F.	
	B. AREA OF FIRST 3' OF EAVE OR 140 SF, WHICHEVER IS GREATER		
	EXISTING		0
	PROPOSED	121 S.F.	
	TOTAL	121 S.F.	
	C. REMAINING AREA (A-B)		
	EXISTING		0
	PROPOSED	424 S.F.	
	TOTAL	424 S.F.	
6.	TOTAL FLOOR AREA OF THE BUILDING SUM OF ALL OF THE CATEGORIES ABOVE		
	EXISTING		0
	PROPOSED	3,035 S.F.	
	TOTAL	3,035 S.F.	
7.	VARIANCE REQUEST FOR COVERED AREA CREDIT MANDATED BY COUNTY		
	EXISTING		0
	PROPOSED	(766 S.F.)	
	TOTAL	(265 S.F.)	
8.	TOTAL FLOOR AREA OF ALL BUILDINGS ON PROPERTY		
	EXISTING		0
	PROPOSED	2,770 S.F.	
	TOTAL	2,770 S.F. - .50 F.A.R.	



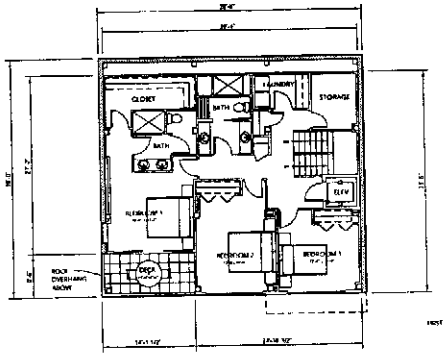
AREA CALCULATIONS DIAGRAM



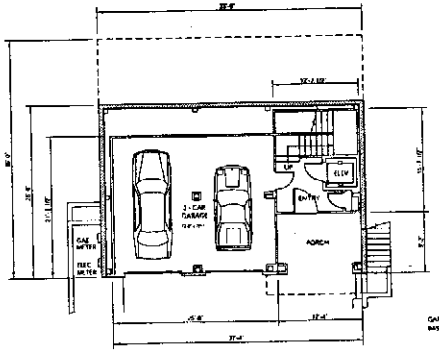
ROOF PLAN



SECOND FLOOR PLAN



FIRST FLOOR PLAN



BASEMENT FLOOR PLAN

SCALE 1" = 8'-0"

BUILDING FLOOR PLANS

BUMB RESIDENCE - 23724 BEACH DRIVE

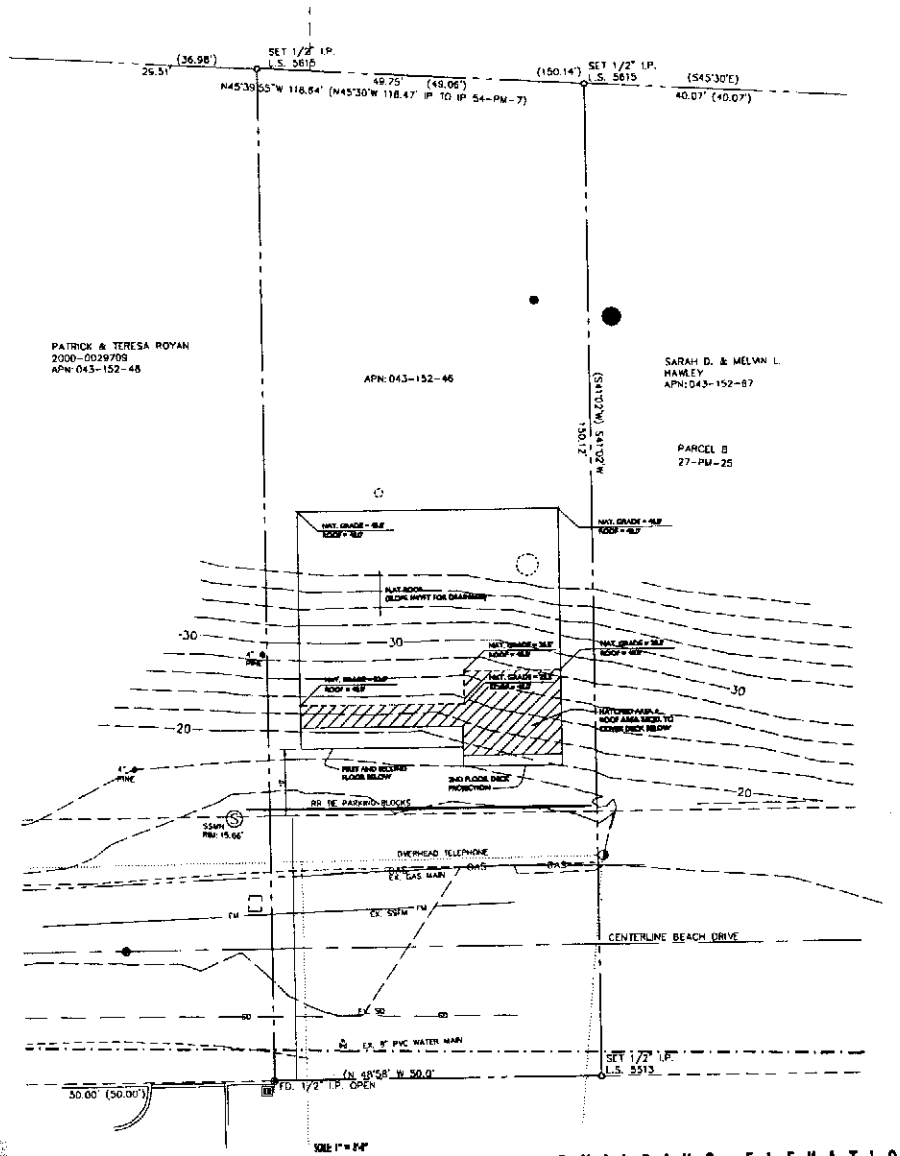
A2

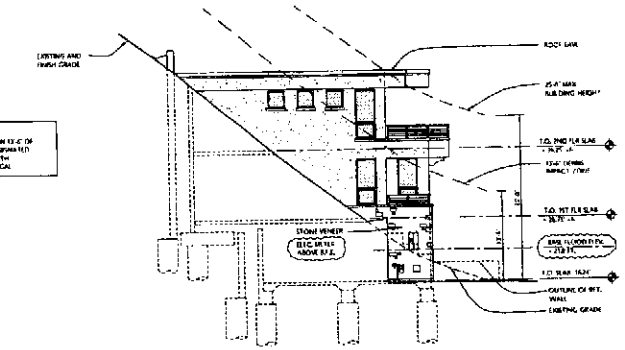
THACHER & THOMPSON ARCHITECTS

MAY 19, 2008
REV. AUG. 11, 2008

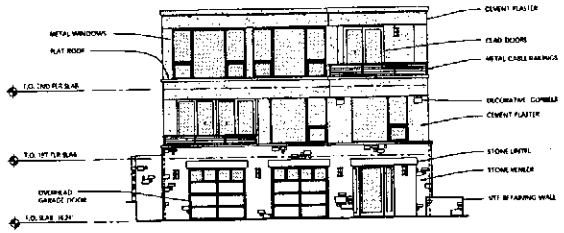
78/82

EXHIBIT M

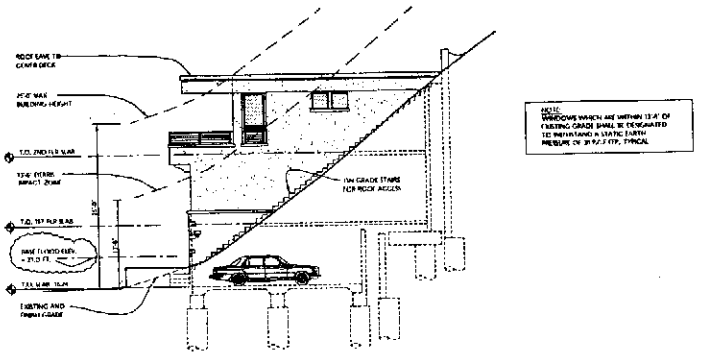




WEST BUILDING ELEVATION



SOUTH BUILDING ELEVATION (FRONT)



EAST BUILDING ELEVATION

BUILDING ELEVATIONS & ROOF HEIGHT DIAGRAM

BUMB RESIDENCE - 23724 BEACH DRIVE

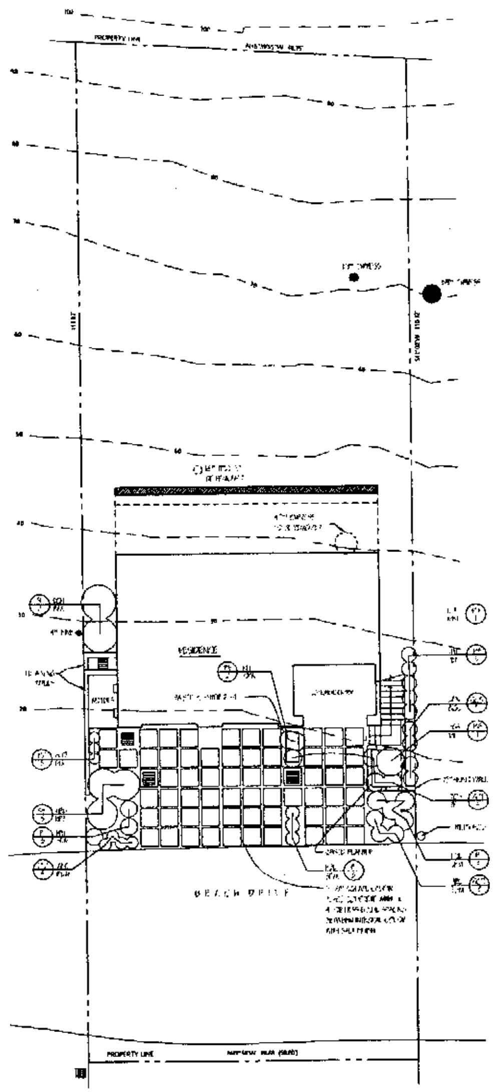
A3

THACHER & THOMPSON ARCHITECTS

MAY 19, 2008
REV. AUG.11, 2008

79/82

EXHIBIT NO. 4



PLANT LEGEND

Sym	Botanical Name	Common Name	Size	Quan
S1	Echium fastuosum	Pride of Madeira	5GC	2
S2	Phormium 'Rosie Chameleon'	Bronze & Rose Flax	5GC	2
S3	Hebe 'Reevesii'	Hebe	5GC	3
P1	Helictotrichon sempervirens 'Sapphire'	Blue Oat Grass	1GC	7
P2	Aloe plicatilis	Fan Aloe	5GC	3
P3	Limonium perezii	Sea Lavender	5GC	5
P4	Clivia miniata -yellow	Yellow Kaffir Lily	5GC	1
P5	Kniphofia 'Orange Flame'	Orange Poker Plant	5GC	2
P6	Agave vilmoriniana	Octopus Agave	15GC	1
GC1	Rosmarinus 'Irene'	Prostrate Rosemary	1GC	6
GC2	Arctostaphylos edmundsii 'Carmel Sur'	Carmel Sur Manzanita	1GC	7
GC3	Lantana 'Gold'	Yellow Lantana	1GC	4

GROUND COVER LEGEND

☐ Thymus "Uncle Wayne" (Creeping Thyme)
From Flats @ 8" on center

* Note: Use between cast in place concrete paving stones.

PLANTING NOTES

LANDSCAPE PLAN

BUMB RESIDENCE - 23724 BEACH DRIVE

L1

ELLEN COOPER LANDSCAPE ARCHITECT
7-25-08

CYPRESS ENVIRONMENTAL AND LAND USE PLANNING
P.O. BOX 1844
APTOS CALIFORNIA
(831) 685-1007 kimt@cypressenv.com

April 15, 2009

Don Bussey, Zoning Administrator
Maria Perez, Project Planner
County of Santa Cruz Planning Department
701 Ocean Street, 4th floor
Santa Cruz, CA 95060

SUBJECT: Application 08-0227 (Bumb Dwelling); APN 43-152-46; Beach Drive, Rio Del Mar

Dear Mr. Bussey and Ms. Perez,

I sent you a letter dated November 4, 2008, regarding the Bumb dwelling project on Beach Drive. I understand this project may be heard by the Zoning Administrator in a June 2009 public hearing. On behalf of my clients, Jack and Lisa Troedson, I am amending my November 4 letter as discussed below. My previous letter included several requests/ideas to minimize the noise and vibration effects of pile driving on nearby residents. Since writing that letter, a public hearing was held by the Zoning Administrator on April 4, 2009 to consider the Fisher dwelling project on Beach Drive. The Zoning Administrator approved the Fisher project with a condition that no pile driving shall be employed in the project's construction. The Fisher applicant team did not object to that condition during the public hearing. Their project will construct a foundation for the dwelling by pier drilling. While pier drilling will also generate noise, it will not be the constant pounding noise associated with pile driving. Pier drilling also should not generate the intense vibration impacts that occur with pile driving. We agree with the condition prohibiting pile driving.

We believe the action on the Fisher project shows that dwellings can be constructed on the bluff side of Beach Drive without using pile driving. We are therefore deleting the requests made in items "e" and "f" of my November 4 letter and instead *requesting the Bumb dwelling project be conditioned to disallow any pile driving of any kind.*

We also request that the Bumb project be conditioned to limit the construction time to 8:00 a.m. to 5:00 p.m. on weekdays to minimize general construction noise impacts on neighbors. My clients were dismayed that the Zoning Administrator expanded the staff recommended construction hours for the Fisher project beyond these times. A construction window of 8:00 a.m. to 5:00 p.m. on weekdays (except in emergencies) is the generally accepted construction period for project construction adopted by many cities and counties throughout California; and it is the construction period that has been stipulated for the vast majority of projects approved by the County of Santa Cruz. To expand the construction period beyond these times will subject

Beach Drive neighbors to more construction noise impacts than most other county residents experience. As such, Beach Drive residents will not be treated equitably if construction hours are expanded beyond the normal 8:00 a.m. to 5:00 p.m. time period.

Please advise Mr. and Mrs. Troedson and myself in writing of the scheduled hearing date for the Bumb project. Thank you.

Sincerely,

Kim Tschantz, MSP, CEP

cc: Jack and Lisa Troedson
165 Sausal Drive, Portola Valley, CA, 94028

letr to MPerez-BumbSFD2

EXHIBIT N