CALIFORNIA COASTAL COMMISSION
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Staff: GDC-SD
Staff Report: May 23, 2002
Hearing Date: June 10-14, 2002

STAFF REPORT AND RECOMMENDATION ON APPEAL

LOCAL GOVERNMENT: City of Encinitas

DECISION: Approved with Conditions

APPEAL NO.: A-6-ENC-00-193

APPLICANT: John D. Robinson Agent: Lynne D. Bath

PROJECT DESCRIPTION: Construction of an approximately 249 sq. ft. addition to an existing approximately 1,700 sq. ft. single family residence on an approximately 7,500 sq. ft. blufftop lot. The project also involves removal of existing unpermitted rip-rap at the toe of the bluff below the residence, and the request for after-the-fact approval of landscaping of the bluff face and grading of the blufftop area to direct runoff toward the street.

PROJECT LOCATION: 507 A Street, Encinitas, San Diego County. APN # 258-042-20

APPELLANTS: Commissioners Patricia McCoy and Patrick Kruer.

STAFF NOTES: The subject coastal development permit was approved by the City of Encinitas Planning Commission on November 16, 2000. The local decision was appealed to the Coastal Commission on December 18, 2000, and on February 13, 2001, the Commission found that the appeal raised a Substantial Issue.

SUMMARY OF STAFF RECOMMENDATION:

The staff recommends that the Commission approve the proposed development with conditions. The main issue raised by the proposed development pertains to geologic stability. The existing residence had previously been determined to be threatened by erosion and the bluff fronting the subject site is currently protected by rip-rap at the toe of the bluff. However, the applicant has presented updated geotechnical information that demonstrates the rip-rap at the toe of the bluff is no longer needed to assure that the blufftop residence is safe from erosion as the major causes of the earlier slope instability have been resolved by the grading of the bluff and landscaping of the bluff face. Staff recommends that the grading of the blufftop and landscaping of the bluff face also be approved after-the-fact with a condition requiring that only drought tolerant, native or non-invasive landscaping be installed. The project has been conditioned to prohibit any

increase above the approved approximately 249 sq. ft. living area, to require that all runoff from the site be directed away from the bluff, that all permanent irrigation devices within 40 feet of the bluff be removed or capped in order to assure stability to the bluff, that the bluff face be conserved by an open space deed restriction and that the applicant assumes all risks associated with the project.

SUBSTANTIVE FILE DOCUMENTS: Certified City of Encinitas Local Coastal Program (LCP); City of Encinitas Planning Commission Resolution No. PC 2000-11, Case No. 00-215 ADR/CDP; Notice of Final Action Case No. 00-215 CDP; C. J. Randle and E. R. Artim 1991, "Geotechnical evaluation, 507 West A Street, Encinitas, California", dated 26 April 1991 (revised 20 May 1991); E. R. Artim 1991, "Site observations - sea bluff, August 13 and 14, 1991, 507 West A Street, Encinitas, California"; Artim and Associates 1991, "Geotechnical engineering report, sea bluff erosion mitigation, 507 West A Street, Encinitas, California"; Zeiser Geotechnical, Inc. 1991, "Third party review of: Geotechnical engineering report, sea bluff erosion mitigation, 507 West "A" Street, Encinitas (P.O. 91-284, Finance No. 1400 MA, Case No. 91-156 MUP)"; Artim and Associates 1991, "Response to geotechnical review of " Geotechnical engineering report, sea bluff erosion mitigation, 507 West "A" Street, Encinitas, California," Project 91-27a, Dated August 21, 1991; Zeiser Geotechnical, Inc. 1991, "Final comments: Third party review of: 1) Geotechnical engineering report, sea bluff erosion mitigation, 507 West "A" Street, Encinitas, California by Artim & Associates dated August 21, 1991; and 2) Response to geotechnical review of " Geotechnical engineering report, sea bluff erosion mitigation, 507 West A Street, Encinitas, California, by Artim & Associates, dated October 21, 1991"; Coast Geotechnical 1996, "Preliminary geotechnical updated study, proposed single and two-story additions, 507 West A Street, Encinitas, California", dated 1 October 1996; Coast Geotechnical 1997, "Coastal Commission inquiry, rip-rap revetment, 507 West A Street, Encinitas, California", dated 2 January 1997; Coast Geotechnical 2000, "Engineering geologic update letter, 507 West A Street, Encinitas, California", dated 3 August 2000; Coast Geotechnical 2001, "Residential addition, 507 West A Street, Encinitas, California", dated 10 August 2001; Coast Geotechnical 2002, "Coastal Development Permit Application #A-6-ENC-00-193/Robinson", dated 4 March 2002; Coast Geotechnical 2002, "Coastal Development Permit Application #A-6-ENC-00-193/Robinson", dated 13 March 2002; Coast Geotechnical 2002, "Coastal Development Permit Application #A-6-ENC-00-193/Robinson", dated 4 April 2002.

I. PRELIMINARY STAFF RECOMMENDATION:

The staff recommends the Commission adopt the following resolution:

MOTION: ***I move that the Commission approve Coastal Development Permit No. A-6-ENC-00-193 pursuant to the staff recommendation.***

STAFF RECOMMENDATION OF APPROVAL:

Staff recommends a **YES** vote. Passage of this motion will result in approval of the permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

RESOLUTION TO APPROVE THE PERMIT:

The Commission hereby approves a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development will conform with the policies of the Certified Encinitas Local Coastal Program and with the public access and recreation policies of the Coastal Act and, where applicable, with the policies of Chapter 3 of the Coastal Act. Approval of the permit will comply with the California Environmental Quality Act because there are no feasible mitigation measures or alternatives that would substantially lessen the significant adverse impacts of the development on the environment.

II. Standard Conditions.

See attached page.

III. Special Conditions.

The permit is subject to the following conditions:

1. Final Plans. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director, for review and written approval, final site and building plans for the proposed development that are in substantial conformance with the plans submitted with this application entitled "Robinson Addition" received by the Commission on January 8, 2001 and that have been approved by the City of Encinitas. Said plans shall include the following:

a. All additions to the existing residence shall be limited to 250 sq. ft. or 10% of the existing residential square footage (which ever is greater) and shall be located no closer than 40 feet to the edge of the existing bluff.

b. All runoff from the site shall be collected and directed away from the bluff edge towards the street.

c. Existing accessory improvements (i.e., decks, patios, walls, etc.) located within 40 feet of the bluff edge shall be detailed and drawn to scale on the final approved site plan.

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

2. Assumption of Risk. By acceptance of this permit, the applicant, on behalf of itself and its successors and assigns, acknowledges and agrees (i) that the site may be subject to hazards from erosion and bluff collapse; (ii) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall execute and record a deed restriction, in a form and content acceptable to the Executive Director incorporating all of the above terms of this condition. The deed restriction shall include a legal description of the applicant's entire parcel. The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Commission amendment to this coastal development permit.

3. Future Development Deed Restriction. This permit is only for the development described in coastal development permit No. A-6-ENC-00-193. Pursuant to Title 14 California Code of Regulations Section 13250(b)(6), the exemptions otherwise provided in Public Resources Code Section 30610(a) shall not apply. Accordingly, any future improvements to the existing single family residence other than those authorized by coastal development permit A-6-ENC-00-193, including, but not limited to, the interior expansion of gross floor area and repair and maintenance identified as requiring a permit in Public Resources Code section 30610(d) and Title 14 California Code of Regulations section 13252(a)-(b), shall require an amendment to permit No. A-6-ENC-00-193 from the California Coastal Commission or shall require an additional coastal development permit from the City of Encinitas.

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall execute and record a deed restriction in a form and content acceptable to the Executive Director, reflecting the above restrictions on development. The deed restriction shall include legal descriptions of the applicant's entire parcel(s). The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the

restriction. This deed restriction shall not be removed or changed without a Commission amendment to this coastal development permit.

4. Landscaping Plan. PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit for the review and written approval of the Executive Director, a final landscaping plan for the bluff top and bluff face in substantial conformance with the plans submitted with the application by Schmidt Design dated 8/23/91 that shall include the following:

a. Any existing permanent irrigation system located within 40 feet of the edge of the bluff or on the bluff face shall be removed or capped.

b. Drought tolerant, native or non-invasive plant materials shall be utilized to maximum extent feasible.

c. A written commitment by the applicant that all required plantings shall be maintained in good growing conditions, and, whenever necessary, shall be replaced with new plant materials to ensure continued compliance with the applicable landscape requirements.

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

5. Open Space Deed Restriction No development, as defined in section 30106 of the Coastal Act shall occur on the subject property seaward of the edge of the bluff as shown in Exhibit 5 except for:

a. Landscaping improvements approved herein and any future landscape maintenance reviewed and approved by the Executive Director.

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall execute and record a deed restriction in a form and content acceptable to the Executive Director, reflecting the above restriction on development in the designated open space. The deed restriction shall include legal descriptions of both the applicant's entire parcel and the open space area. The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Commission amendment to this coastal development permit.

6. Construction Staging and Access. PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive

Director for review and written approval, plans identifying the location of access corridors to the site and staging areas. The final plans shall include the following:

a. No overnight storage of equipment or materials shall occur on sandy beach or public parking spaces. During the construction stages of the project, the permittee shall not store any construction materials or waste where it will be or could potentially be subject to wave erosion and dispersion. In addition, no machinery shall be placed, stored or otherwise located in the intertidal zone at any time, except for the minimum necessary to remove the rip-rap. Construction equipment shall not be washed on the beach.

b. Access corridors shall be located in a manner that has the least impact on public access to and along the shoreline.

c. No work shall occur on the beach on weekends or holidays between Memorial Day weekend and Labor Day of any year.

7. Other Permits. PRIOR TO THE REMOVAL OF THE RIP-RAP, the permittee shall provide to the Executive Director copies of all other required local, state or federal discretionary permits for the rip-rap removal authorized by CDP #A-6-ENC-00-193. The applicant shall inform the Executive Director of any changes to the project required by other state or federal agencies. Such changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this permit, unless the Executive Director determines that no amendment is legally required.

8. As-Built Project Plans. Within 60 days of completion of the subject development, the applicant shall submit for review and written approval of the Executive Director as-built plans for the approved residential addition. Said plans shall include a certification by a licensed architect that the residential addition has been constructed in conformance with the approved plans for the project.

9. Agreement to Participant in a Comprehensive Plan. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall agree in writing to participate in any future comprehensive plan adopted by the City of Encinitas to address coastal bluff recession and shoreline erosion problems in the City.

10. Removal of Rip-Rap. PRIOR TO COMMENCEMENT OF CONSTRUCTION OF THE RESIDENTIAL ADDITION, the permittee shall document to the Executive Director that all visible rip-rap has been removed from the beach and bluff below the subject property. In addition, if in the future, any additional rip-rap becomes visible on the beach or bluff below the subject property, the applicant shall apply for and implement a coastal development permit to remove the visible rip-rap.

11. Condition Compliance. Within 90 days of Commission action on this coastal development permit application, or within such additional time as the Executive Director may grant for good cause, the applicant shall satisfy all requirements specified in the conditions hereto that the applicant is required to satisfy prior to issuance of this permit.

In addition, within 60 days of issuance of the permit, or within such additional time as the Executive Director may grant for good cause, the applicant shall remove all existing rip-rap at the base of the bluff. Failure to comply with this requirement may result in the institution of enforcement action under the provisions of Chapter 9 of the Coastal Act.

12. Conditions imposed by Local Government. This action has no effect on conditions imposed by the City of Encinitas pursuant to an authority other than the Coastal Act.

II. Findings and Declarations.:

1. Project Description/Permit History. The project involves the construction of an approximately 249 sq. ft., 25 foot-high bedroom addition, and approximately 250 sq. ft. attic space above the existing first floor. The addition will be added to an approximately 1,700 sq. ft. one-story single family residence containing a basement located on an approximately 7,500 sq. ft. blufftop lot. All new additions will be located more than 40 feet landward of the existing edge of the bluff. In addition, the proposal involves the removal of all unpermitted existing rip-rap located at the base of the bluff on the public beach and the request for after-the-fact approval for grading of the blufftop to direct drainage away from the bluff and the landscaping of the bluff face.

First floor changes: The first floor is proposed to be expanded with the construction of an approximately 249 sq. ft., 25 ft.-high master bedroom located landward of the 40 ft. geologic setback area. A new bathroom will be installed in the existing residence and the existing stairway to the basement will be realigned. The bathroom and most of the stairway improvements will also be set back 40 ft. from the bluff edge and will involve the construction of new interior walls. A portion of the realigned stairway and new interior walls will extend approximately 3 ft. seaward of the 40 ft. bluff-edge setback area.

Second floor changes: An approximately 250 sq. ft. attic space approximately 4 ft. 11 in. high is proposed to be constructed on the eastern side of the existing residence above the existing first floor and will be located landward of the 40 ft. geologic setback area. The proposed first floor 249 sq. ft. bedroom addition which will be 26 ft. in height will extend up to the same elevation as the proposed attic.

Basement Level changes: The subject residence currently has a basement that extends under the entire first floor. The existing basement contains a guest room, bathroom, laundry room, storage areas/closets, a large bedroom sized room and stairway leading to the first floor. The subject application involves realignment of the stairway landward of the 40 ft. setback area and construction of a basement-level foundation (filled with soil) to support the proposed bedroom addition. A single interior wall is also proposed within the 40 ft. setback area between the existing laundry room and the closet or storage area of the existing bathroom.

The project is located at the southwest corner of 5th Street and A Street approximately 7 lots north of Moonlight Beach in Encinitas. The surrounding residential neighborhood consists of homes that vary from one to three stories in height.

According to the applicant, the existing single family residence was constructed prior to the Coastal Act of 1972 (sometime in the 1940's) and is located as close as 16 feet from the edge of the approximately 65 foot-high coastal bluff. In March of 1992, the Executive Director authorized an emergency permit for the temporary placement of rip-rap at the base of the bluff below the existing residence and the grading of the blufftop to direct drainage away from the edge of the bluff. The emergency permit was issued in response to an upper bluff failure which, as documented by the applicant, placed the residence at the top of the bluff in danger from erosion. The primary cause of the bluff failure was determined to be water runoff from the top of the bluff, lack of vegetation on the bluff face and human foot traffic and digging on the slope ("Geotechnical Engineering Report, Sea Bluff Erosion Mitigation 507 West A Street, Encinitas" by Artim & Associates, dated August 21, 1991). In April of 1993, the Commission approved a follow-up regular coastal development permit to the emergency permit which included an after-the-fact request to grade the blufftop area and landscape the face of the bluff (Ref. CDP No. 6-92-73-G/Robinson). The Commission approved the coastal development permit with special conditions that required the applicant to remove the rip-rap by no later than April 13, 1995, and to file an application for permanent shoreline protection or removal of the threatened portions of the residence with six months of Commission action. The applicant did not satisfy the conditions of the permit and the permit subsequently expired. Thus, the existing rip-rap at the toe of the bluff, the grading of the blufftop and the landscaping of the bluff face are all unpermitted development.

The City of Encinitas has a certified Local Coastal Program (LCP) and has been issuing coastal development permits since May of 1995. The proposed development, which is located on the blufftop above the public beach, is located within the permit jurisdiction of the City's LCP and, therefore, the standard of review for the subject development is the certified Encinitas LCP and the public access and recreational policies of the Coastal Act. In addition, the rip-rap is located on the public beach and, therefore, Chapter 3 of the Coastal Act is the standard of review for the rip-rap removal.

2. Limits to Blufftop Additions. Public Safety Element (PS) Policy 1.7 of the City's Land Use Plan (LUP) states, in part:

> The City shall develop and adopt a comprehensive plan, based on the Beach Bluff Erosion Technical Report (prepared by Zeiser Kling Consultants Inc., dated January 24, 1994), to address the coastal bluff recession and shoreline erosion problems in the City. . . .
>
> If a comprehensive plan is not submitted to, reviewed and approved by the Coastal Commission as an amendment to this land use plan by November 17, 1996, then thereafter, no additions or expansions to existing structures shall be permitted on coastal blufftop lots except for minor additions or expansions that comprise no

> greater than a 10% increase over the existing gross floor area of the structure or 250 sq. ft., whichever is greater, provided such additions/expansions are located at least 40 ft. or more from the bluff edge, the addition/expansion is constructed in a manner so that it could be removed in its entirety, and the applicants agrees, in writing, to participate in any comprehensive plan adopted by the City to address coastal bluff recession and shoreline erosion problems in the City. . . . [emphasis added]

Section 30.34.020(B)(9) of the City's certified Implementation Plan (IP) contains similar language:

> The City shall develop and adopt a comprehensive plan, based on the Beach Bluff Erosion Technical Report (prepared by Zeiser Kling Consultants Inc., dated January 24, 1994), to address the coastal bluff recession and shoreline erosion problems in the City. If a comprehensive plan is not submitted to, reviewed and approved by the Coastal Commission as an amendment to the City's Local Coastal Program by November 17, 1996, then no additions or expansions to existing structures shall be permitted on coastal blufftop lots except for minor additions or expansions that comprise no greater than a 10 percent increase above the existing gross floor area or 250 square feet, whichever is greater, provided such additions/expansions are located at least 40 feet or more from the bluff edge, the addition/expansion is constructed in a manner so that it could be removed in its entirety, and the applicants agree to participate in any future comprehensive plan adopted by the City to address coastal bluff recession and shoreline erosion problems in the City. In addition, until such a comprehensive plan is approved by the City of Encinitas and the Coastal Commission as an amendment to the LCP, the City shall not permit the construction of seawalls, revetments, breakwaters, cribbing, or similar structures for coastal erosion except under circumstances where an existing principal structure is imminently threatened and, based on a thorough alternatives analysis, an emergency coastal development permit is issued and all emergency measures authorized by the emergency coastal permit are designed to eliminate or mitigate adverse impacts on local shoreline sand supply.

The comprehensive plan to address bluff recession and erosion along the City's shoreline, although required by the LCP, has not yet been developed or adopted by the City or the Commission. It is anticipated that the comprehensive plan will provide guidance and establish standards and regulations addressing, among other things: nonconforming blufftop structures and avoiding or minimizing the alteration of the natural bluff or impacts to the beach below. The intent of the above-cited LCP provision is to significantly limit blufftop additions until adoption of a comprehensive plan to make sure that any proposed alternatives that may be suggested by the comprehensive plan are not precluded so as to further exacerbate the existing problems affecting the City's shoreline. Limiting additions to structures on the bluffs to minor additions and expansions outside of the geologic setback area will avoid increasing the degree of the nonconforming structures in potentially hazardous locations while allowing the property some additional area of use until such time that a comprehensive plan is approved and implemented.

The proposed development includes a two-story high (25 ft-high), 249 sq. ft. bedroom addition to an existing approximately 1,700 sq. ft. residence along with an area beneath the bedroom which is proposed to serve as the bedroom's foundation and an approximately 250 sq. ft. attic area above a portion of the existing residence, adjacent to the proposed bedroom addition. On the surface it would appear that the proposed development is consistent with the LCP provisions in that only 249 sq. ft. additional floor area is proposed. Although the amount of "gross floor area" is calculated to be only 249 sq. ft., the resulting structure will be much larger than the existing residence. (In calculating the amount of gross floor area, the City's zoning ordinance does not include attic space that is less than 5 feet in height and, thus, the total increase in gross floor area is calculated to only be 249 sq. ft.) Thus, while the proposed addition "technically" falls within the LCP's 250 sq. ft. limit on additions it also involves additional construction beyond 250 sq. ft. of gross floor area. The subject project raises two primary concerns. First, will the project result in a significant enlargement or enhancement of an existing nonconforming blufftop structure, i.e., a structure located within the 40 ft. geologic setback area, such that the nonconformity is increased? Secondly, whether the proposed additions beyond the 249 sq. ft. bedroom represent structures that exceed the limits of the LCP in advance of an approved and certified comprehensive plan.

Section 30.76.120 of the City Certified Implementation Plan (IP) relating to additions to nonconforming residential structures states, in part:

> A. Any project for a building with one or more structural or use nonconformities that is damaged up to 100% (by accident or voluntary) of its valuation can be reconstructed for the continuation of the nonconformities provided such nonconformities are not increased in density or intensity. Nonconforming residential buildings may be reconstructed, added to, or structurally altered so long as neither the number of dwelling units for each complex nor the intensity of the nonconformity is increased, and the number and size of existing parking spaces is not reduced. . . .
>
> An increase in the "intensity" of a nonconforming structure/use would refer to:
>
> 1. expanding the structural nonconformity, e.g., not meeting development standards.

The City's LCP, therefore, allows for additions to nonconforming residential structures as long as the addition does not expand the structural nonconformity or increase its intensity. For new development, the development standards of the City's Certified IP require that blufftop developments be set back a minimum of 40 ft. from the edge of the bluff. In this case, however, the proposed project is limited to the construction of an approximately 249 sq. ft. bedroom addition and new attic area that will be located landward of the 40 ft. geologic setback area. Therefore, adding the approximately 249 sq. ft. of gross floor area to the existing approximately 1,700 sq. ft. residence is a minor addition which does not expand the structural nonconformity of the existing residence and is consistent with Section 30.76.120 of the City's IP.

The second concern is whether the proposal exceeds the limitation placed on additions to blufftop development in advance of a certified comprehensive plan relating to bluff recession and shoreline erosion problems. The intent of (PS) Policy 1.7 of the certified LUP is to limit blufftop additions to no more than 10% of the existing or 250 sq. ft., whichever is greater, until the City has an approved comprehensive plan that includes components such as minimum setback standards, alternatives to and minimization of shore/bluff protection, removal of threatened portions of residences or the entire residence, underpinning of existing structures, and impacts of groundwater and irrigation on bluff stability. The comprehensive plan may include different standards that address the extent of improvements which can occur to existing structures which are nonconforming due to their blufftop setback and establish a threshold at which the entire structure must be brought into conformance with the certified LCP. By limiting projects to minor additions at this time, it assures that substantial new development will not interfere with or inhibit the implementation of measures identified in the future comprehensive plan. In addition, by allowing minor additions landward of the 40 ft. geologic setback area, a homeowner will still be afforded some reasonable increase in usable area until the comprehensive plan is approved.

As proposed, the new bedroom addition involves approximately 249 sq. ft. of additional gross floor area consistent with the limits placed on additions to blufftop developments in PS Policy 1.7 of the Certified LUP. Other elements of the proposal involve basement-level foundation walls under the proposed bedroom which are proposed to be filled with soil and an approximately 250 sq. ft. attic area above the existing residence. One concern raised by these other elements is that future interior improvements to the resulting residence could increase in gross square footage of the addition above the maximum 250 sq. ft. allowed for in PS Policy 1.7. Based on a review of the submitted plans, the proposed foundation will be located immediately adjacent to the existing open basement which currently contains a guest room, bathroom, laundry room, storage areas/closets, a large bedroom-sized room and stairway leading to the first floor. By simply inserting a doorway in the shared wall of the basement and the foundation, removing the soil and adding a floor, an additional 250 sq. ft. of gross floor area could be created. Also, because the addition of the attic area above the existing first floor and the proposed 249 sq. ft. bedroom addition is proposed to be up to 25 feet in height, it will be possible to construct a second floor above the proposed bedroom and existing first floor by dropping the ceiling approximately 4 feet resulting in approximately 499 sq. ft. of additional gross floor area. Therefore, the proposed two-story bedroom, basement, attic features might easily be converted to an additional approximately 749 sq. ft. of gross floor area by interior modifications alone. To assure that the proposed development does not exceed the 250 sq. ft. of gross floor area as provided in the LCP, Special Condition #3 has been attached which prohibits any increase in gross floor area beyond 250 sq. ft. without approval of a subsequent coastal development permit or amendment to the subject permit following approval of the comprehensive plan. In addition, Special Condition #8 has been attached that requires that the applicant submit within 60 days of completion of the subject development a copy of the as-built plans documenting that no more than 249 sq. ft. of gross floor area has been constructed. With these conditions, the proposed development will be

consistent with the requirements of PS Policy 1.7 limiting additions to blufftop structures to no more than 250 sq. ft. of gross floor are. Similar conditions limiting the size of the addition has been included with the local government approval of the subject development (Case No. 00-215 ADR). In addition, Special Condition #12 has been attached advising the applicant that all local government approvals, other than the coastal development permit approval, are unaffected by the subject permit conditions.

In addition, Section 30.34.020(B)(9) of the City's certified IP requires applicants for blufftop property developments to agree to participate in any future comprehensive plans adopted by the City. To date the applicants have not provided evidence of this agreement. Therefore, Special Condition #9 has been attached which requires the applicant to submit an agreement consistent with this requirement. In addition, PS Policy 1.7 requires that minor additions be designed and constructed in a manner that will enable them to removed in their entirety if they become threatened by erosion. To satisfy this requirement, the applicant's architect has submitted a letter documenting the proposed addition will be capable of being removed if necessary in the future. Therefore, as conditioned, the proposed development is consistent with PS Policy 1.7 of the City's certified LUP and Sections 30.34.020(B)(9) and 30.76.120 of the City's Certified IP.

3. Geologic Stability. Section 30.34.020(D) of the City's Certified IP states, in part, that:

> Each application to the City for a permit or development approval for property under the Coastal Bluff Overlay Zone shall be accompanied by a soils report, and either a geotechnical review or geotechnical report as specified in paragraph C "Development Processing and Approval" above. Each review/report shall be prepared by a certified engineering geologist who has been pre-qualified as knowledgeable in City standards, coastal engineering and engineering geology. The review/report shall certify that the development proposed will have no adverse effect on the stability of the bluff, will not endanger life or property, and that any proposed structure or facility is expected to be reasonably safe from failure and erosion over its lifetime without having to propose any shore or bluff stabilization to protect the structure in the future. . . .

PS Policy 1.3 states that:

> The City will rely on the Coastal Bluff and Hillside/Inland Bluff Overlay Zones to prevent future development or redevelopment that will represent a hazard to its owners or occupants, and which may require structural measures to prevent destructive erosion or collapse.

In addition, PS Policy 1.6 states, in part, that:

> The City shall provide for the reduction of unnatural causes of bluff erosion, as detailed in the Zoning Code, by: [. . .]

[. . .]

b. Improving local drainage systems to divert surface water away from the bluff

[. . .]

d. Reducing the infusion ground water from domestic sources through, among other actions, requiring the removal of existing irrigation systems within forty feet of the bluff edge and prohibiting the installation of such systems in new development.

e. Permitting pursuant to the Coastal Bluff Overlay Zone, bluff repair and erosion control measures on the face of and at the top of the bluff that are necessary to repair human-caused damage to the bluff, and retard erosion which may be caused or accelerated by land-based forces such as surface drainage or ground water seepage . . .

d. Requiring new structures and improvements to existing structures to be set back 25 feet from the inland blufftop edge, and 40 feet from the coastal blufftop edge . . . For all development proposed on coastal blufftops, a site-specific geotechnical report indicating that the coastal blufftop setback will not result in risk of foundation damage resulting from bluff erosion or retreat to the principal structure within its economic life and with other engineering evidence to justify the coastal blufftop setback shall be required. . . .

In all cases, all new construction shall be specifically designed and constructed such that it could be removed in the event of endangerment and the applicant agree to participate in any comprehensive plan adopted by the City to address coastal bluff recession and shoreline erosion problems in the City. . .

g. Permanently conserving the bluff face within an open space easement or other suitable instrument.

Standards of the justification of preemptive erosion control devices and limits on location of shoreline devices shall be as detailed in the Zoning Code.

In addition, Section 30.34.040(B)(5) of the City's Certified Implementation Plan (IP) addresses runoff and drainage requirements:

With development of any new building or expansion of the floor area of an existing building, all drainage and run-off on the property shall be collected and delivered to approved drainage facilities. Unless otherwise approved by the Planning Commission following recommendations from the City Engineer, all drainage shall be diverted away from within 5 ft. of the edge and face of the bluff. Drainage improvements provided shall include roof drains. Any existing drainage systems which deliver run-off to or over the edge of the bluff shall be removed.

In addition, Section 30.34.040(B)(6) of the City's IP addresses landscaping of the bluff:

> Landscaping on beach bluff properties shall avoid the use of ice plant, and emphasize native and drought-tolerant plants in order to minimize irrigation requirements and reduce potential slide hazards due to over-watering. Landscaping materials shall be installed and maintained so as to assure that neither during growing stages nor upon reaching maturity will such materials obstruct views to and along the ocean and other scenic coastal areas from public vantage points. Irrigation shall be limited to hose bibs or water saving irrigation systems with automatic timers. No permanent irrigation system shall be permitted within 40 feet of the coastal bluff edge.

Finally, as it applies to the proposed rip-rap removal on the public beach, Section 30235 of the Coastal Act states, in part:

> Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. . . .

The project site is located approximately 7 lots north of Moonlight Beach in Encinitas. The subject blufftop lot contains an approximately 1,700 sq. ft. single-family residence constructed over a basement and is located adjacent to other blufftop residences. According to the applicant's geotechnical report, the residence is located as close as 16 ft. from the edge of an approximately 65 ft. high coastal bluff (ref. "Preliminary geotechnical updated study, proposed single and two-story additions, 507 West A Street, Encinitas, California", by Coast Geotechnical, dated 1 October 1996). The report describes the bluff as consisting of approximately 20 ft. of Eocene Torrey Sandstone located at the base of the bluff overlain by approximately 45 feet of Pleistocene terrace deposits. In addition, it states that rock rip-rap lies at the toe of the bluff. The report describes the Torrey Sandstone as forming "a relatively resistant, near vertical sea cliff" that "is not extensively fractured" and has overall gradient of approximately 1½:1. The upper 45 feet of terrace deposits is described as exhibiting a gradient of approximately 1:1. As the Commission's staff geologist, Dr. Mark Johnsson, describes in the attach memo (ref. Exhibit 4), the likely mechanism of bluff failure on sites containing the Torrey Sandstone overlain by terrace deposits involve episodic block fall. The block fall occurs as a result of marine erosion wearing a notch into the lower sections of the Torrey Sandstone formation thereby creating, over time, an overhanging section of bluff material that eventually collapses, thereby undermining the upper bluff.

Section 30.34. 020(D) of the City's Certified IP requires that new blufftop structures must be safe from erosion and bluff failure over their lifetime so as not to require shoreline protection. To determine an appropriate safe setback for new development, Section 30.34.020(D) also requires the submission of an analysis of the stability of the

bluff. To that end, the applicant's geotechnical representatives have prepared quantitative slope stability analyses for the site. The analyses have been performed without consideration of the existing rip-rap. The analyses show that the upper bluff has a static factor of safety of 1.45, slightly short of the static factor of safety of 1.5 that is the required standard cited in Section 30.34. 020(D) of the City's Certified IP. (ref. "Coastal Development Permit Application #A-6-ENC-00-193/Robinson", by Coast Geotechnical dated 4 April 2002). Therefore, development must be cited landward of the position on the top of the bluff where a factor of safety of 1.5 is achieved. The Commission's staff geologist, Dr. Mark Johnsson has reviewed the applicant's quantitative slope stability analyses and, based on their calculations has concluded that position where the 1.5 factor of safety emerges on the bluff top is approximately 17 feet landward of the bluff edge.

However, in order to assure stability over its approximately 75-year lifetime, Section 30.34.020(D) of the City's Certified IP also requires that the retreat rate of the bluff also be examined. While the applicant's geotechnical reports do not provide detailed information pertaining to an approximate bluff retreat rate for the subject bluffs, Dr. Johnsson has reviewed the current scientific literature pertaining to regional erosion rates for Encinitas and suggests that an erosion rate of approximately .25 ft. per year is applicable. His attached memo (ref. Exhibit 4) cites a recent FEMA-funded study indicating that the "annual bluff retreat rates in Encinitas have historically (1932-1994) ranged from a low of 4 cm/yr (0.13 ft/yr) to a high of 14 cm/yr (0.46 foot/yr)." While Dr. Johnsson would normally recommend the use of the more conservative rate to account for the potential of increasing bluff retreat rates as a result of sea level rise in response to global warming, in this case, he is suggesting the use of the average value, or 7.74 cm/yr (0.25 ft./yr) because the Torrey Sandstone at the subject location is one of the units most resistant to marine erosion found in Encinitas and also because the site is somewhat more sheltered than Torrey Sandstone sections north of the site, where the value cited above was measured. Over 75 years, this long-term average bluff retreat rate translates into approximately 19 feet of bluff retreat. Adding this value to the 17 feet setback required to attain a 1.5 factor of safety, Dr. Johnsson recommends a minimum 36 ft. setback from the edge of the bluff for any new development. However, because of the uncertainties associated with approximating slope stability and erosion and because (PS) Policy 1.7 of the Certified LUP and Section 30.34.020(B)(9) of the City's Certified IP require blufftop additions to be setback at least 40 from the edge of the bluff, the applicant's proposal of a 40 ft. setback is acceptable and consistent with the provisions of the LCP.

Because of the uncertainties and risks associated with development on an eroding blufftop, and given that the applicants have chosen to perform the work despite the risks, the applicants must assume the risks. Accordingly, Special Condition #2 requires that the applicants record a deed restriction that evidences their acknowledgment of the risks and that indemnifies the Commission against claims for damages that may be brought by third parties against the Commission as a result of its approval of this permit.

In addition to the residential addition, the subject application involves the removal of all rip-rap at the base of the bluff and after-the-fact approval for the grading of the blufftop

and landscaping of the bluff face. The applicant received an emergency permit in 1992 to place rip-rap at the toe of the bluff (in response to an upper bluff failure) and to grade the blufftop to address drainage. Subsequently, however, the Commission required as part of the follow-up regular coastal development permit, that the applicant remove the rip-rap and apply for a coastal development permit to construct an alternative shoreline protection device or remove the threatened portions of the residence. Because the applicant failed to comply with the requirements of the coastal development permit, the permit subsequently expired and the temporary rip-rap, grading of the blufftop and landscaping of the bluff face became unpermitted development.

The geotechnical report prepared for the emergency permit identified that erosion "poses an immediate threat to the property improvements and residential structure" (Letter from Artim & Associates to Coastal Commission, dated November 15, 1991). The primary cause was identified to be runoff draining over the bluffs, lack of vegetation on the bluff and vandals digging into the bluff. An updated geotechnical report has been submitted by the applicant which describes past and current site conditions ("Engineering Geologic Update Letter" by Coast Geotechnical dated August 3, 2000). The report identifies that two or more slope failures occurred on the bluff below the existing residence in March of 1991. In response to the instability of the slope, the report documents that the blufftop lot was graded so that site drainage would no longer flow over the bluff edge and the bluff was landscaped. The report concluded and stated, in part, that:

> (1) Control of site drainage, establishment of proper vegetation along the bluff face and the placement of rip-rap along the sea cliff has significantly reduced slope erosion and basal retreat.

In addition, a recent letter from the applicant's engineering geologist asserts that the drainage and landscaping improvements have increased the stability of the site such that the rip-rap is no longer needed ("Residential addition, 507 West A Street, Encinitas, California", by Coast Geotechnical 2001, p.3 dated August 10, 2001). The Commission's staff geologist has reviewed all the geotechnical documentation submitted by the applicant and concurs with their opinion that the rip-rap is no longer needed to protect the existing residence at the top of the bluff because the primary cause of the previous failures has been resolved by the grading of the blufftop and landscaping of the bluff face. Therefore, since rip-rap is not required to protect existing structures its removal is consistent with Section 30235 of the Coastal Act. However, to assure that the unpermitted rip-rap is removed in a timely manner, Special Condition #10 requires that the rip-rap be removed prior to commencement of construction of the residential addition.

As cited above, 30.34.040(B)(5) of the City's Certified (IP) also requires that new blufftop developments include provisions to divert all runoff away from the bluff. In the case of the subject project, the site has already been graded to assure that runoff be directed away from the bluff to the street. Although the proposed grading has already been completed without benefit of a coastal development permit, the grading has been included as part of the subject application. Because it is necessary to protect the bluff and assure stability of the site, the proposed after-the-fact grading of the blufftop is

consistent with Section 30.34.040(B)(5) of the Certified IP. In addition, Section 30.34.040(B)(6) of the Certified IP requires that landscaping on beach bluff properties shall emphasize native and drought-tolerant plants in order to minimize irrigation requirements and reduce potential landslides due to over-watering. The IP also prohibits permanent irrigation devices within 40 feet of the bluff edge. The subject project includes a request for after-the-fact approval of landscaping of the bluff. However, because the landscaping has occurred without benefit of a coastal development permit, it is not known whether the work that has been completed complies with the LCP requirements. The applicant indicates, however, that some "ice-plant" previously existed on the bluff face prior to their unpermitted landscaping. Because of the potential adverse impacts to bluff stability associated with its removal, the Commission is not requiring the applicant to remove this pre-existing ice-plant from the bluff face. It is the Commission's intent, however, that any after-the-fact or additional landscaping of the bluff face or the blufftop be native, drought tolerant or non-invasive. Therefore, Special Condition #4 has been attached which requires the submission of an as-built landscape plan using native and drought-tolerant plants to the maximum extent feasible and the removal of any existing irrigation devices within 40 feet of the bluff edge. Therefore, as conditioned, the proposed after-the-fact grading of the blufftop and landscaping of the bluff are consistent with Sections 30.34.040(B)(5) and 30.34.040(B)(6) of the City's Certified IP.

In order to reduce the risk of unnatural bluff erosion, PS Policy 1.6(g) requires that the bluff face be placed within an open space easement or other suitable device. Therefore, Special Condition #5 requires the applicant record an open space deed restriction for that portion of the bluff face owned by the applicant. The restriction prohibits the alteration of the bluff or development on the bluff face except for landscaping as authorized by this permit. In this way, the bluff will remain in its natural state and retain its scenic value.

In summary, as conditioned, the proposed residential addition has been sited, based on site specific geotechnical information, at 40 feet from the edge of the bluff so as to be safe over its lifetime and not require shoreline protection consistent with (PS) Policy 1.7 of the Certified LUP and Section 30.34.020(B)(9) of the Certified IP. In addition, the existing rip-rap at the toe of bluff is not necessary to protect the residence and is proposed to be removed consistent with Section 30235 of the Coastal Act. Finally, as conditioned, the proposed after-the-fact grading of the blufftop and landscaping of the bluff face is consistent with provisions of Sections 30.34.040(B)(5) and 30.34.040(B)(6) of the City's Certified IP.

4. Water Quality. Recognizing the value of protecting the water quality of oceans and waterways for residents and visitors alike, the City's LCP requires that preventive measures be taken to protect coastal waters from pollution. The following policies are applicable:

Resource Management Policy 2.1 of the LCP states:

> In that the ocean water quality conditions are of utmost importance, the City shall aggressively pursue the elimination of all forms of potential unacceptable pollution that threatens marine and human health.

Resource Management Policy 2.3 of the LCP states in part:

> To minimize harmful pollutants from entering the ocean environment from lagoons, streams, storm drains and other waterways containing potential contaminants, the City shall mandate the reduction or the elimination of contaminants entering all such waterways . . .

The proposed addition to a single-family residence will result in only a de minimis increase of approximately 249 sq. ft. of impervious surface over what exists on the lot. In order to reduce the potential for adverse impacts to water quality resulting from drainage runoff from the proposed development, Special Condition #4 has been attached. Special Condition #4 requires the landscaping proposed for the site be native and drought tolerant so as to minimize irrigation and reduce potential bluff sloughage. As conditioned, the proposed landscaping will serve to reduce any impacts to water quality from the project to insignificant levels. Therefore, the Commission finds the proposed project consistent with RM Policy 2.1 and 2.3.

6. Public Access. The project site is located on the blufftop west of Neptune Avenue. Neptune Avenue at this location is designated as the first public roadway. As the proposed development will occur between the first public roadway and the sea, pursuant to Section 30.80.090 of the City's LCP, a public access finding must be made that such development is in conformity with the public access and public recreation policies of the Coastal Act.

Section 30210 of the Coastal Act states:

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

In addition, Section 30212 of the Act is applicable and states, in part:

> (a) Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where:
>
> (l) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources,
>
> (2) adequate access exists nearby....

Additionally, Section 30220 of the Coastal Act provides:

> Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.

The proposed development will occur on the top of the bluff above a public beach and on the public beach through the removal of rip-rap. The beach fronting this location is used by local residents and visitors for a variety of recreational activities. As proposed, the development at the top of the bluff will not affect existing public access to the shoreline since no public access across the property currently exists. In addition, public access to beach is currently available at Moonlight State Beach which is located approximately seven lots south of the subject site. In addition, the proposed removal of rip-rap will enhance public access of the beach since more beach area will become available for public use. Although the removal of the rip-rap will enhance public access, the construction activities associated with its removal may involve some temporary impediments to public access along the beach. Therefore, to mitigate these temporary impacts, Special Condition #6 has been attached which requires the submission of a construction schedule documenting that the removal of the rip-rap will occur outside of periods of high beach use such as summer weekends or holidays. In addition, to assure that all unnecessary rip-rap is removed from the public beach and public access is enhanced, Special Condition #10 has also been attached which requires the removal of all existing visible rip-rap. The condition also includes a provision requiring the applicant to apply for a coastal development permit to remove any existing buried rip-rap at the site if it becomes exposed in the future. In addition, Special Condition #7 has been attached to which requires the applicant to obtain any additional local or state permits (such as beach encroachment authorization) prior the removal of the rip-rap. In this way, whatever public access impacts, however limited, will be mitigated to the most feasible extent. Therefore, the proposed development will enhance public access to or along the shoreline and is consistent with the certified Local Coastal Program and Sections 30210, 30212 and 30220 of the Coastal Act.

7. Visual Issues. The City's certified Land Use Plan contains several policies relating to the requirement that new development be designed to be compatible with existing development and the visual resources of the area. Land Use (LU) Policies 6.5 and 6.6 state as follows:

> The design of future development shall consider the constraints and opportunities that are provided by adjacent existing development. (LU Policy 6.5)
>
> The construction of very large buildings shall be discouraged where such structures are incompatible with surrounding development. The building height of both residential and non-residential structures shall be compatible with surrounding development, given topographic and other considerations, and shall protect public views of regional or statewide significance. (LU Policy 6.6)

In addition, RM Policy 8.5 of the LUP states, in part, that:

> The City will encourage the retention of the coastal bluffs in their natural state to minimize geologic hazards and as a scenic resource. Construction of structures for bluff protection shall only be permitted when an existing principal structure is endangered and no other means of protection of that structure is possible.

Finally, Section 30.34.020B.8 of the Implementation Program states:

> The design and exterior appearance of buildings and other structures visible from public vantage points shall be compatible with the scale and character of the surrounding development and protective of the natural scenic qualities of the bluffs.

The proposed project involves an approximately 249 sq. ft., 25 ft. high bedroom addition to an existing one-story approximately 1,700 sq. ft. single-family residence with basement. Also proposed is the addition of attic space above a portion of the existing one-story residence which will result in an increase of portions of the existing first floor to a height of 25 ft. The proposed residential addition will be located in an established residential neighborhood containing one to three story single-family residences. The proposed addition will not exceed the height, bulk and scale of the existing surrounding development and will be consistent with the City's development standards. In addition, public views of the shoreline or any other coastal resource will be unaffected by the proposed residential addition. In addition, with the removal of the existing rip-rap at the toe of the bluff below the residence, the visual resources along the beach will be enhanced. Also, as previously cited, Special Condition #5 requires that the bluff face located within the applicant's property be subject to an open space deed restriction prohibiting any development, aside from landscaping approved herein, from occurring on the natural bluff. As such, the visual quality of these natural bluffs will be protected. Therefore, as conditioned, the proposed residential addition does not adversely affect visual resources. Therefore, as conditioned, the Commission finds that the proposed development is consistent with LU Policies 6.5 and 6.6, RM Policy 8.5, and Section 30.34.020B.8 of the City's IP.

8. Unpermitted Development. The proposed development will occur on a site where several developments have occurred without the benefit of a coastal development permit. These include the grading of the blufftop, the landscaping of the bluff face and the installation of rock rip-rap at the toe of the bluff. To assure that the unpermitted development component of this application is resolved in a timely manner, Special Condition #11 has been attached which requires that the applicant satisfy all conditions of this permit which are prerequisite to the issuance of this permit within 90 days of Commission action and to remove the unpermitted rip-rap within 60 days of issuance of the permit.

Although these developments have taken place prior to submission of this permit application, consideration of the application by the Commission has been based solely upon the policies of the City's certified LCP and/or Chapter 3 policies of the Coastal Act. Approval of the permit does not constitute a waiver of any legal action with regard to

these violations of the LCP or Coastal Act that may have occurred, nor does it constitute admission as to the legality of any development undertaken on the subject site without a coastal development permit.

9. Local Coastal Planning. Section 30604 (a) also requires that a coastal development permit shall be issued only if the Commission finds that the permitted development will not prejudice the ability of the local government to prepare a Local Coastal Program (LCP) in conformity with the provisions of Chapter 3 of the Coastal Act.

In November of 1994, the Commission approved, with suggested modifications, the City of Encinitas Local Coastal Program (LCP). Subsequently, on May 15, 1995, coastal development permit authority was transferred to the City. The project site is located within the City's permit jurisdiction and, therefore, the standard of review is the City's LCP.

Based on specific policy and ordinance language requirements placed in the LCP by the Commission, the City of Encinitas is in the process of developing a comprehensive program addressing the shoreline erosion problem in the City. The intent of the plan is to look at the shoreline issues facing the City and to establish goals, policies, standards and strategies to comprehensively address the identified issues. To date, the City has conducted several public workshops and meetings on the comprehensive plan to identify issues and present draft plans for comment. However, at this time it is uncertain when it will be scheduled for local review by the Encinitas City Council or when the plan will come before the Commission as an LCP amendment.

In the case of the proposed project, site specific geotechnical evidence has been submitted indicating that the existing structure on the project site is not currently threatened by erosion and that shoreline/bluff protection is not currently required. In addition, the geotechnical report asserts that the proposed addition will not be threatened over its lifetime which is estimated to be 75 years.

Based on the above findings, the proposed residential addition has been found to be consistent with the Sections 30.34.020(D) of the City's Certified IP and Public Safety Policy 1.3 and 1.6 of the LUP which prohibits development in hazardous locations that would require the construction of shoreline protective devices. In addition, as conditioned, the project has been found to be consistent with PS Policy 1.7 of the LUP which restricts developments in advance of the comprehensive plan. In addition, the proposal has been found to be consistent with Section 30.76.120 of the City's Certified IP involving additions to nonconforming structures. Therefore, the Commission finds that approval of the proposed residential addition would not prejudice the ability of the City of Encinitas to implement its certified LCP and to prepare a comprehensive plan addressing the City's coastline as required in the certified LCP.

10. California Environmental Quality Act (CEQA) Consistency. Section 13096 of the Commission's administrative regulations requires Commission approval of a Coastal

Development Permit to be supported by a finding showing the permit is consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

The proposed project, as conditioned, is consistent with the policies of the City's LCP relating to geologic stability, water quality, public access and visual resources. In addition, as conditioned, the project is consistent with all applicable Chapter 3 policies of the Coastal Act. Mitigation measures will minimize all adverse environmental impacts. As conditioned, there are no feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impact which the activity may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned, is the least environmentally-damaging feasible alternative and is consistent with the requirements of the City's LCP and the public access and recreation policies of the Coastal Act to conform to CEQA.

STANDARD CONDITIONS:

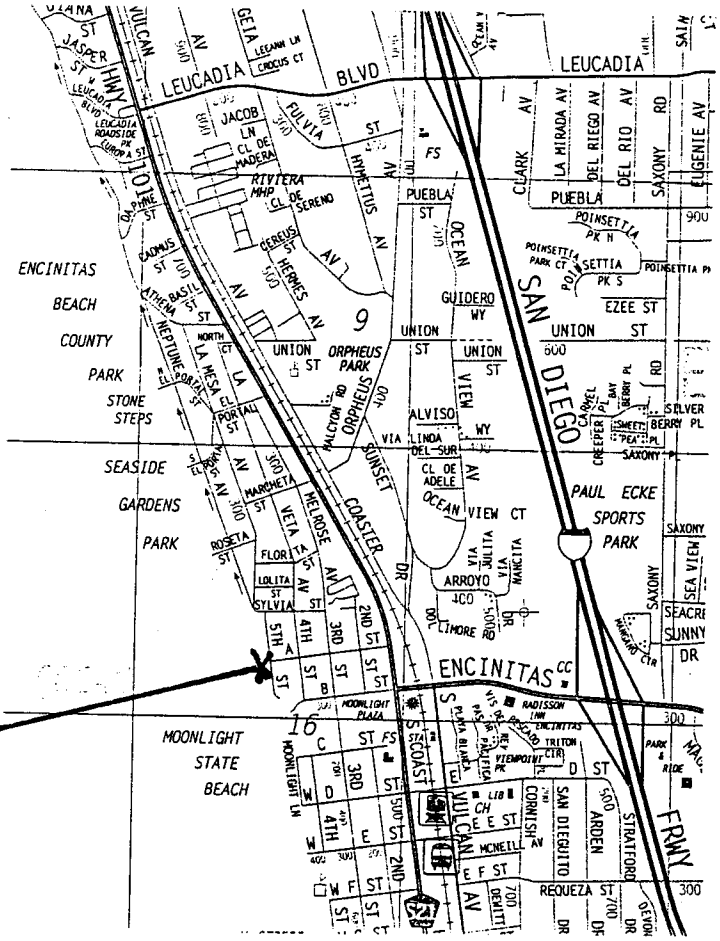
1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. Expiration. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

3. Interpretation. Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.

4. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

5. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.



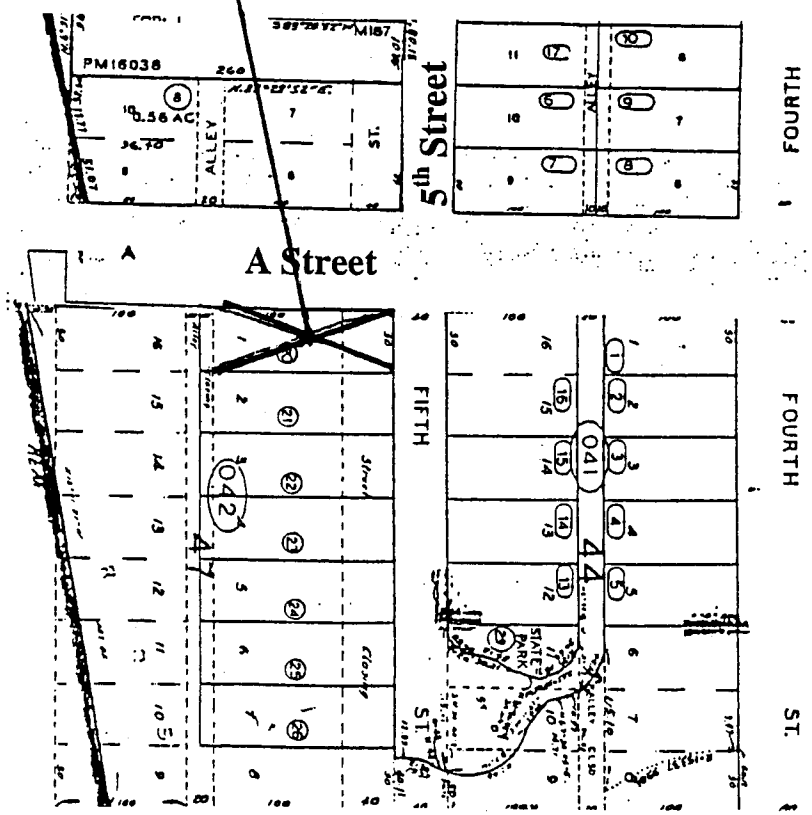


EXHIBIT NO. 1
APPLICATION NO.
A-6-ENC-00-193
Location Map
California Coastal Commission

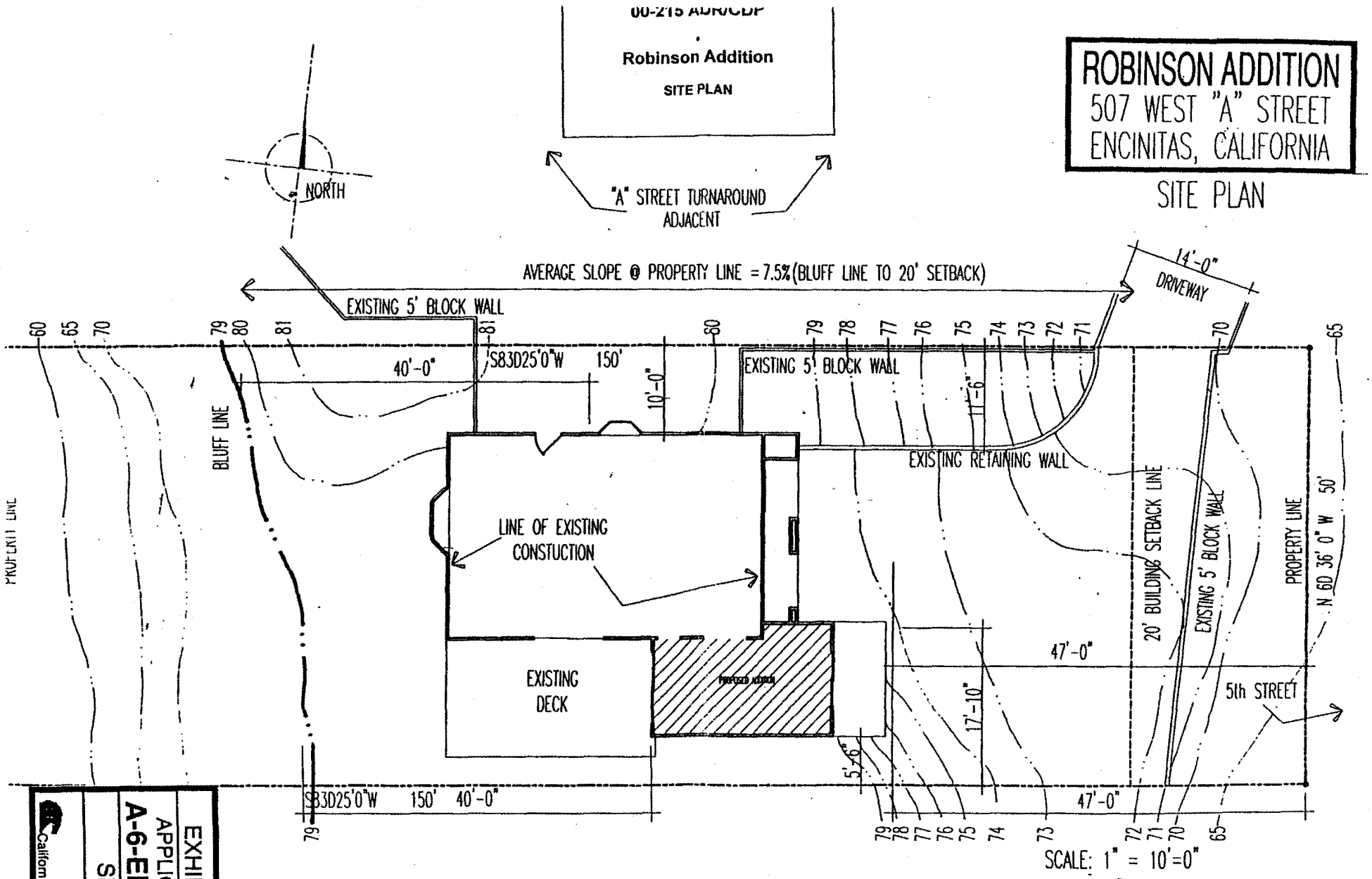
00-215 ADR/CDP

Robinson Addition

SITE PLAN

ROBINSON ADDITION
507 WEST "A" STREET
ENCINITAS, CALIFORNIA

SITE PLAN



SCALE: 1" = 10'-0"

EXHIBIT NO. 2
APPLICATION NO.
A-6-ENC-00-19
Site Plan

California Coastal Commission

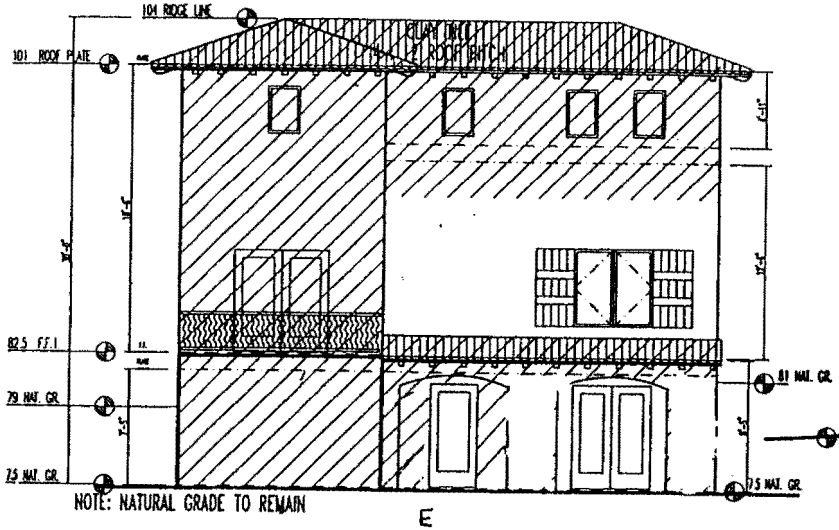
00-215 ADR/CDP

Robinson Addition

ELEVATIONS

ROBINSON ADDITION
507 WEST "A" STREET
ENCINITAS, CALIFORNIA

ELEVATIONS



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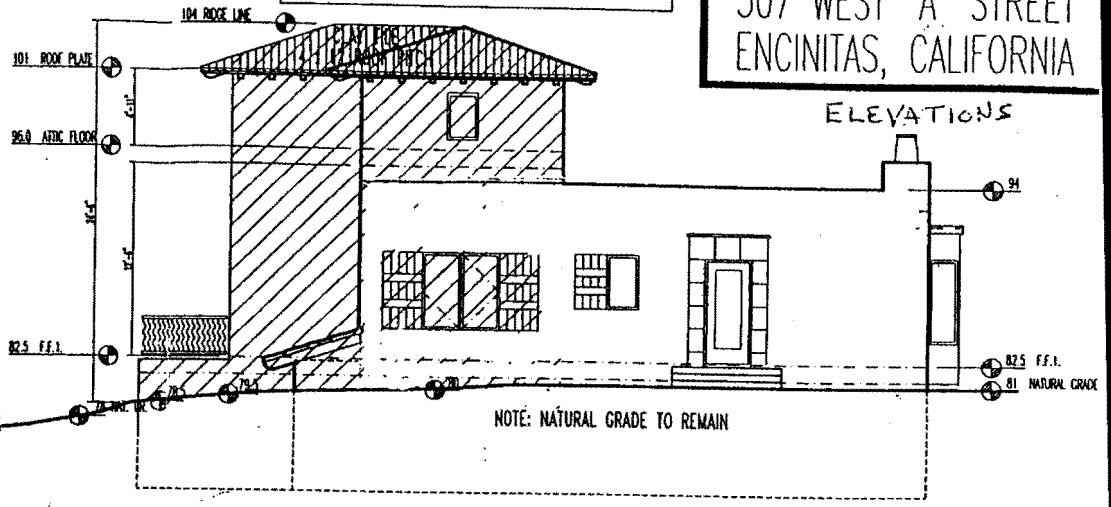

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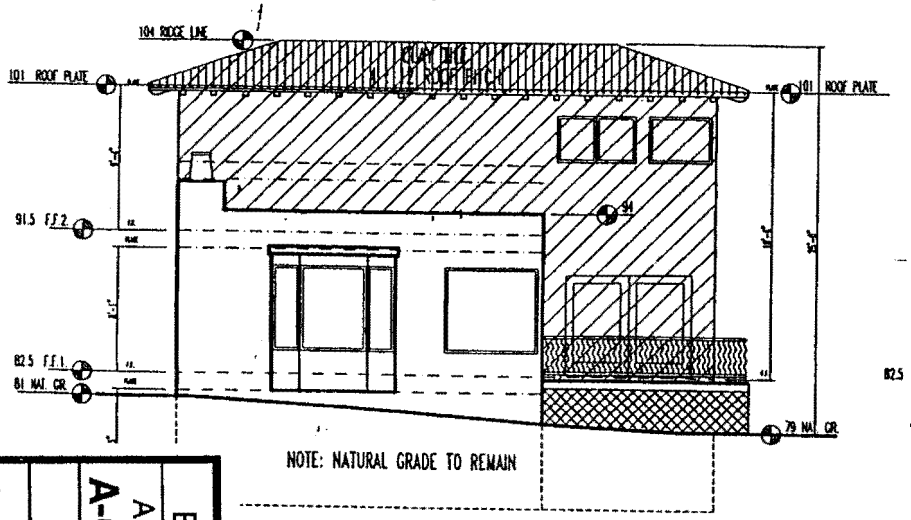

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SHADED AREA DENOTES PROPOSED ADDITION

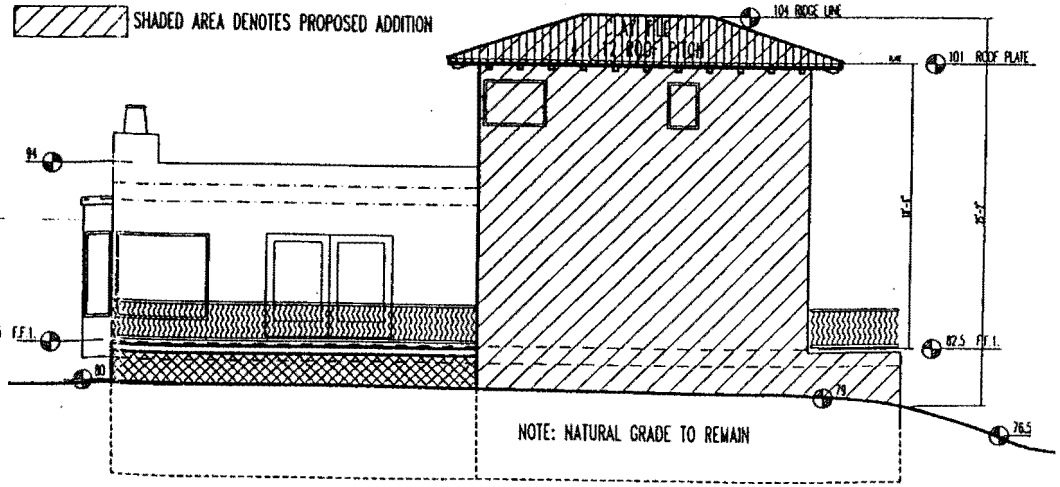

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EXHIBIT NO. 3
APPLICATION NO.
A-6-ENC-00-193
Elevations

California Coastal Commission

STATE OF CALIFORNIA—THE RESOURCES AGENCY GRAY DAVIS, GOVERNOR

CALIFORNIA COASTAL COMMISSION
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FAX (415) 904-5400

11 April 2002

GEOTECHNICAL REVIEW MEMORANDUM

To: Gary Cannon, Coastal Program Analyst
From: Mark Johnsson, Staff Geologist
Re: Appeal A-6-ENC-00-193 (Robinson)

In regard to the above referenced appeal, I have reviewed the following documents:

1) C. J. Randle and E. R. Artim 1991, "Geotechnical evaluation, 507 West A Street, Encinitas, California", 9 p. letter report dated 26 April 1991 (revised 20 May 1991) and signed by C. J. Randle (RCE 22096) and E. R. Artim (CEG 1084).

2) E. R. Artim 1991, "Site observations - sea bluff, August 13 and 14, 1991, 507 West A Street, Encinitas, California", 2 p. letter report dated 15 August 1991 and signed by E. R. Artim (CEG 1084).

3) Artim and Associates 1991, "Geotechnical engineering report, sea bluff erosion mitigation, 507 West A Street, Encinitas, California", 7 p. geotechnical report dated 21 August 1991 and signed by E. R. Artim (CEG 1084) and C. J. Randle (RCE 22096).

4) Zeiser Geotechnical, Inc. 1991, "Third party review of: Geotechnical engineering report, sea bluff erosion mitigation, 507 West "A" Street, Encinitas (P.O. 91-284, Finance No. 1400 MA, Case No. 91-156 MUP)", 4 p. review letter dated 18 September 1991 and signed by J. A. Darras (CEG 1637) and H. F. Kling (RCE 42395).

5) Artim and Associates 1991, "Response to geotechnical review of " Geotechnical engineering report, sea bluff erosion mitigation, 507 West "A" Street, Encinitas, California," Project 91-27a, Dated August 21, 1991", 9 p. geotechnical response letter dated 21 October 1991 and signed by C. J. Randle (RCE 22096) and E. R. Artim (CEG 1084).

6) Zeiser Geotechnical, Inc. 1991, "Final comments: Third party review of: 1) Geotechnical engineering report, sea bluff erosion mitigation, 507 West "A" Street, Encinitas, California by Artim & Associates dated August 21, 1991; and 2) Response to geotechnical review of " Geotechnical engineering report, sea bluff erosion mitigation, 507 West A Street, Encinitas, California, by Artim & Associates, dated October 21, 1991", 4 p. review letter dated 3 November 1991 and signed by J. A. Darras (CEG 1637) and H. F. Kling (RCE 42395).

7) Coast Geotechnical 1996, "Preliminary geotechnical updated study, proposed single and two-story additions, 507 West A Street, Encinitas, California", 20 p. geotechnical report dated 1 October 1996 and signed by M. Burwell (CEG 2109) and V. Singhanet (PE 782).

8) Coast Geotechnical 1997, "Coastal Commission inquiry, rip-rap revetment, 507 West A Street, Encinitas, California", 2 p. letter report dated 2 January 1997 and signed by M. Burwell (CEG 2109) and V. Singhanet (PE).

9) Coast Geotechnical 2000, "Engineering geologic update letter, 507 West A Street, Encinitas, California", 3 p. letter report dated 3 August 2000 and signed by M. Burwell (CEG 2109).

10) Coast Geotechnical 2001, "Residential addition, 507 West A Street, Encinitas, California", 3 p. letter reports dated 10 August 2001 and signed by M. Burwell (CEG 2109).

11) Coast Geotechnical 2002, "Coastal Development Permit Application #A-6-ENC-00-193/Robinson", 1 p. letter report dated 4 March 2002 and signed by M. Burwell (CEG 2109).

12) Coast Geotechnical 2002, "Coastal Development Permit Application #A-6-ENC-00-193/Robinson", 1 p. letter report dated 13 March 2002 and signed by M. Burwell (CEG 2109).

13) Coast Geotechnical 2002, "Coastal Development Permit Application #A-6-ENC-00-193/Robinson", 2 p. letter report dated 4 April 2002 and signed by M. Burwell (CEG 2109).

In addition, I have had several conversations with the current project geologist, Mr. Mark Burwell, regarding the stability of the site. I have viewed the coastal bluff at the site on numerous occasions, and visited the site explicitly to address the issues of this appeal on 21 February 2002.

As reported in reference (1), at least two slope failures occurred on the bluff face during and immediately after heavy rains in March of 1991. Due to poor drainage, evidently directed over the bluff, these failures became the loci of increased erosion during this rainy period. Reference (1) recommended mitigation measures, including the diversion of surface runoff away from the bluff edge and the installation of "base protection," in the form of a rip rap revetment, at the base of the coastal bluff, made up of Torrey sandstone. The erosion problems were compounded during the summer of 1991, as explained in reference (2), by children's activities on the debris cone that formed at the base of the slope, and by the excavation of a deep pit in the slope by vandals. Reference (3) suggested mitigation measures for all of these stability issues, including the installation of rip-rap, the removal of the debris cone, landscaping, and drainage improvements. After a round of third-party reviews (references 4, 5, and 6), these recommendations were substantially accepted by the City of Encinitas, and were implemented under a major use permit by the City and an emergency permit issued by the Coastal Commission. Although a follow-up Coastal Development Permit (6-92-73-G) was issued in 1993 authorizing these improvements, the permit was conditioned such that the rip rap was to be removed within 18 months of the Commission action or by 18 August 1994.

When I visited the site in February 2002, the rip rap was still in place. However, drainage improvements and landscaping have apparently succeeded in substantial improvements in the stability of the coastal bluff. In general, I concur with the conclusions in references (7) and (8) that there is no evidence of continuing erosion problems at the subject site, although these references are in themselves insufficient to assess the stability of the site against landsliding because no slope stability analyses were performed. Given the proposed addition to the residence, Commission staff inquired as to the presence of the existing revetment and whether it was necessary for the continued stability of the site. Reference (9) was a general response, indicating that the revetment tended to increase the stability of the site because it acts to slow erosion

of the Torrey sandstone bedrock making up the lower bluff. I concur with this statement, but it is not clear whether the continued stability of the site *depends* on the revetment. When asked this question directly, the applicant's geotechnical consultant responded (reference 10) that the site improvements have increased the stability of the site such that the revetment is no longer needed.

After reviewing references 1-10, it was my opinion that a quantitative slope stability analysis, not included in any of these references, was necessary to further assess the stability of the site. The applicant's current geotechnical consultant, Mr. Mark Burwell, first responded by providing a set of analyses performed in 1996 to assess the static stability of the bluff (reference 11). As is appropriate for the Torrey sandstone in this area, which tends to fail by block failure, the analysis tested for failure of the upper bluff marine terrace deposits. As further clarified in reference (12), the minimum factor of safety for failure of the upper bluff was found to be less than the industry standard for new development of 1.5, as required by the LCP. The position on the bluff top landward of which a 1.5 factor of safety is obtained was calculated graphically. From the figure included in reference (11), I measure this point to be approximately 21 feet landward of the bluff edge.

The analysis included in reference (11) did not make use of the more sophisticated computer programs such as are available today, nor did it include data justifying the shear strength parameters (cohesion and friction angle) used in the analysis. Further, no seismic analysis was performed. Accordingly, upon request, Mr. Burwell performed an additional set of analyses in which these deficiencies were remedied (reference 13). These analyses meet the standards generally required by the Commission, and do demonstrate that the stability of the upper bluff falls slightly short of the criteria (static factory of safety of 1.5) required by the LCP; the minimum factor of safety determined was 1.45. The 1.1 minimum factor of safety obtained for the pseudostatic condition does meet the generally accepted standard for slope stability under seismic loading conditions, although the LCP is silent as to what standard is required.

Because the bluff does not meet the stability standard required by the LCP, development must be set back behind the line on the bluff top where a factor of safety of 1.5 can be demonstrated. The position of the intersection of the line representing a factor of safety of 1.5 with the top of the bluff can be crudely scaled from the figure presented in reference (13), which I measure to be approximately 17 feet (cf. 21 feet scaled from reference 11).

Further, to assure geologic stability as required by the LCP, it is important to add an erosion buffer corresponding to a best estimate of the coastal bluff retreat to be expected over the expected economic lifespan of the development, assumed by the LCP to be 75 years. The current state of our knowledge of regional long-term bluff retreat rate in Encinitas is represented by the recent FEMA-funded study reported in Moore et al. (1999) and Benumof and Griggs (1999). This work, which represents the current state of

the art, indicated that annual bluff retreat rates in Encinitas have historically (1932-1994) ranged from a low of 4 cm/yr (0.13 ft/yr) to a high of 14 cm/yr (0.46 foot/yr). In the absence of site-specific data, I recommend the adoption of the average value reported in Benumof and Griggs (1999) for Encinitas, 7.74 cm/yr (0.25 ft/yr). I would normally recommend a more conservative approach—adoption of the highest historic rate—in order to allow for potential increases in the bluff retreat rate as a result of anticipated acceleration of the rate of sea level rise in response to global warming. This site, however is sited on the Torrey sandstone, one of the more resistant rock units exposed in Encinitas, and is at a location that seems to be relatively sheltered compared to other site on the Torrey sandstone to the north. Nevertheless, I recommend use of the average value reported in Benumof and Griggs (1999), rather than the low-end value, to allow for acceleration of the bluff retreat rate in conjunction with sea level rise. Assuming a 75-year design life, this translates to an expected bluff retreat of 18.95 feet.

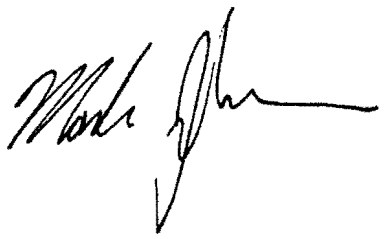
A conservative approach to establishing setbacks might be to expect the bluff configuration to remain the same as at present over the course of its retreat. To ensure stability at the end of 75 years, the current setback required to assure stability might be added to the expected retreat. With the information available, it would appear that a 17 foot setback would assure stability with regard to failure of the upper bluff. To this figure should be added the expected bluff retreat on the basis of a 75-year design life (19 feet), for a total of 36 feet. One would generally require a buffer (typically ten feet) be added to the expected bluff retreat value in order to ensure that the foundation elements are not actually being undermined at the end of the 75-year period, to allow access for any remedial actions (such as foundation underpinning or relocation of the structure), to allow for an acceleration of bluff retreat rates over the historic rate due to anticipated acceleration in the rate of sea level rise, and to allow for general uncertainty in predicting geologic processes into the future. In this case, however, such a buffer may be absorbed by the buffer necessary to ensure stability against landsliding of the upper bluff. I note that the recommended setback is slightly less than the LCP-mandated 40-foot setback, and so the 40 foot setback requirement applies.

I note that the present structure will be threatened before the addition. It is impossible to say exactly when the existing structure will be threatened by erosion. Considering the proximity of the existing structure to the bluff edge, it is possible that a single substantial failure of the upper bluff could threaten the stability of the shallow foundations that support the existing residence. The relatively high factor of safety obtained for the upper bluff does, however, make it appear unlikely that such a failure would occur. This stability is in large part due to the relatively shallow slope of the upper bluff, at least as compared to other sites in Encinitas. If the revetment were to be removed, continued erosion of the Torrey Sandstone at the base of the bluff would be expected. The likely mechanism is episodic block fall, which would result in undermining of the upper bluff, likely resulting in upper bluff failures that would tend to steepen the slope and/or encroach on the existing structure. It is impossible to accurately assess how long it will be before the existing structure is imminently

threatened given the uncertainty of predicting block failures of this type. The calculations presented above do indicate, however, that reasonably assurance can be given that the additions, set back more than 40 feet, will not be threatened for more than their 75-year design life.

I hope that this review is helpful. Please do not hesitate to contact me if you have additional questions.

Sincerely,



Mark Johnsson, Ph.D., CEG

Additional references cited:

Benumof, B. T., and Griggs, G. B., 1999, The dependence of seacliff erosion rates on cliff material properties and physical processes: San Diego County, California: Shore and Beach, v. 67, no. 4, p. 29-41.

Moore, L. J., Benumof, B. T., and Griggs, G. B., 1999, Coastal erosion hazards in Santa Cruz and San Diego counties, California: Journal of Coastal Research, v. 28, p. 121-139.

00-215 ADR/CDP

Robinson Addition

SITE PLAN

ROBINSON ADDITION
507 WEST "A" STREET
ENCINITAS, CALIFORNIA

SITE PLAN

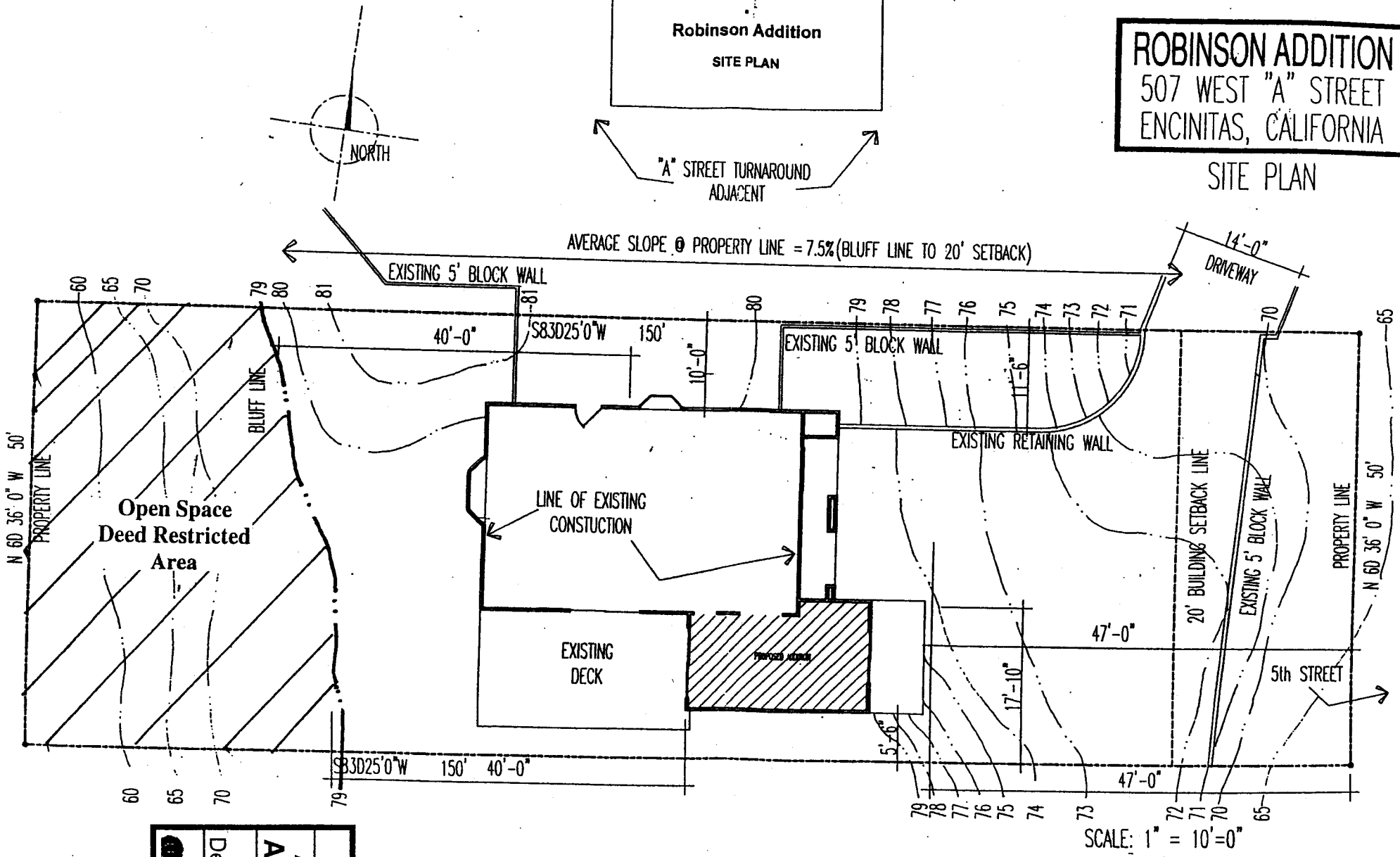


EXHIBIT NO. 5
APPLICATION NO.
A-6-ENC-00-193
Bluff Open Space Deed Restricted Area

California Coastal Commission