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STAFF REPORT AND RECOMMENDATION ON APPEAL SUBSTANTIAL ISSUE DETERMINATION

Local Government: City of Encinitas

Decision: Approved with Conditions

Appeal Number: A-6-ENC-20-0022

Applicant: Marco and Nicole Hanlon

Location: 100 & 104 Fifth Street, Encinitas, San Diego County.
(APN(s) 258-023-21, -22).

Project Description: Demolition of two existing single-family residences on two adjacent lots, consolidation of the lots, one a bluff-top lot; and construction of a new approximately 7,830 sq. ft. two-story single-family residence with an approximately 8,193 sq. ft. basement/subterranean garage and a pool on a combined 22,852 sq. ft. lot. Existing riprap at the base of the bluff will remain.

Appellants: Vice Chair Donne Brownsey; Commissioner Caryl Hart; Laura Walsh, Surfriider Foundation.

Staff Recommendation: Substantial Issue

IMPORTANT HEARING PROCEDURE NOTE

The Commission will not take testimony on this “substantial issue” recommendation unless at least three commissioners request it. The Commission may ask questions of

the applicant, any aggrieved person, the Attorney General or the executive director prior to determining whether or not to take testimony regarding whether the appeal raises a substantial issue. If the Commission takes testimony regarding whether the appeal raises a substantial issue, testimony is generally and at the discretion of the Chair limited to 3 minutes total per side. Only the applicant, persons who opposed the application before the local government (or their representatives), and the local government shall be qualified to testify during this phase of the hearing. Others may submit comments in writing.

If the Commission finds that the appeal raises a substantial issue, the de novo phase of the hearing will occur at a future Commission meeting, during which it will take public testimony.

SUMMARY OF STAFF RECOMMENDATION

Staff recommends that the Commission, after public hearing, determine that a substantial issue exists with respect to the grounds on which the appeal has been filed.

The proposed project consists of demolition of two existing single-family residences on two adjacent lots one which is on the blufftop, consolidation of the lots, and construction of a new approximately 7,830 sq. ft. single-family residence with an approximately 8,193 sq. ft. basement/subterranean garage and a pool on the combined 22,852 sq. ft. lot. Existing riprap at the base of the bluff below the proposed residence will remain. The basement and first floor are proposed to be located approximately 53 feet from the coastal bluff edge and the second floor is proposed to cantilever within approximately 42.5 feet of the bluff edge. The basement is proposed to provide the foundation for the house. The subject site is located on the west side of both Fifth Street and Neptune Avenue, approximately 900 feet north of Moonlight State Beach, and approximately 1 mile south of Beacon's Beach, in the City of Encinitas. Existing riprap and fill are located on the beach and at the toe of the bluff below the subject site; preliminary documentation provided by the applicant suggests the rock may have been placed prior to passage of the Coastal Act; there is no evidence that the riprap was placed under a permit by the City of Encinitas, the County of San Diego, or by the Coastal Commission.

The City found that the proposed single-family residence is consistent with the public access, public recreation, and blufftop development provisions of the certified Local Coastal Program (LCP). However, the development, as approved by the City, raises several LCP inconsistencies with regard to geologic stability and existing and future shoreline protection, the lack of an alternatives analysis, retention of nonconforming development, protection of visual resources, and future removal of development if threatened by erosion.

The City's certified LCP requires that new development on bluff top lots be set back such that it will be safe from instability and erosion over its lifetime. In order to find the appropriate geologic setback, the certified LCP requires that a geotechnical analysis must demonstrate that an adequate factor of safety (FOS) of 1.5 exists under present

conditions, and that an adequate FOS of 1.5 will be maintained over 75 years, for all types of slope failure. In this case, the City did not require the applicants to undertake a slope stability analysis assuming that the existing armoring was not in place. Instead, it appears that the applicants' geotechnical consultants assumed that the existing shoreline protective device would be present over the lifetime of the new home.

The LCP prohibits new development which "may require structural measures to prevent destructive erosion or collapse." Thus, landowners cannot rely on structural measures such as seawalls and below grade retention systems when siting new structures on blufftop sites. If a shoreline protective device exists in front of a lot but is no longer required to protect the existing structure it was authorized to protect, the Commission should not authorize new development that might perpetuate the need for the shoreline armoring. Otherwise, if a new structure is able to rely on shoreline armoring that is no longer required to protect an existing structure, then the new structure can be sited without a sufficient setback, perpetuating an unending construction/redevelopment loop that prevents proper siting and design of new development, as required by the LCP.

Furthermore, the LCP prohibits development that is not expected to be reasonably safe from failure and erosion over its lifetime without having to propose any shore of bluff stabilization to protect the structure in the future. As noted, there is existing riprap and fill below the subject site. These shoreline protective devices were not designed or approved to accommodate future redevelopment of the blufftop parcel. Stability analyses cannot properly be calculated based on the existence of protective devices including riprap and fill. Therefore, given the lack of permit for the riprap and fill and uncertainty that the existing protective devices will remain and function for the life of the new structure, new development should be sited where it will not be dependent on the existing shoreline protective devices for protection.

The estimated erosion rate used for the project is 0.51 feet/year over 75 years, which is generally consistent with erosion rates determined for other recent Encinitas projects. However, the City has not provided evidence explaining how the estimated erosion rate on the site was calculated. Thus, staff cannot at this time determine if the rate used is appropriate for this site.

Given that the setback was determined using the existing protection, it is likely that the appropriate setback on this site is significantly larger than 53 feet. The subject lot from the edge of the bluff to the eastern property line is approximately 190 feet in length, and ranges from approximately 75 feet in width along the western boundary to approximately 55 feet wide along the eastern boundary on Fifth Street. Thus, a smaller size home than the proposed 16,023 sq. ft. home (including the subterranean basement/garage), may be necessary. However, there was no alternatives analysis done, as required by the LCP, that examines revised project designs or the potential for reduced yard setbacks that would allow a new home to be sited safely on the site. The lack of information on alternatives to the proposed project raises a substantial issue.

The blufftop site is included in the City's Coastal Blufftop Overlay Zone. For development within this zone, the LCP requires that any new construction shall be specifically designed and constructed such that it could be removed in the event of

endangerment. Although the proposed large basement and garage area would initially be buried under the home, since siting the proposed residence 53 feet back from the bluff edge is likely to result in the structure being at risk from erosion and bluff instability, construction of a basement 53 feet from the bluff edge could result in the basement walls being exposed in the future as the bluff erodes. However, removing or moving back the structure would likely require a great deal of alteration of the bluff that could be infeasible, and the excavation could threaten the overall stability of the bluff. Thus, construction of a basement in the proposed location raises a substantial issue.

The precedential value of the local government's decision for future interpretations of its LCP is also important with regard to this project. At the Commission's August 2016 hearing, the Commission found Substantial Issue two projects that raised similar issues as the subject project located in Encinitas: (A-6-ENC-16-0068/Hurst, 808 Neptune Avenue) and (A-6-ENC-16-0067/Meardon, 438 Neptune Avenue). At the Commission's July 2016 hearing, the Commission also found Substantial Issue for two blufftop projects that raised similar issues as the subject project located in Encinitas: (A-6-ENC-16-0060/Martin, 444 Neptune Avenue) and (A-6-ENC-13-0210/Lindstrom, 132 Neptune Avenue). In the case of the property at 444 Neptune, the Commission approved the project conditioned that a basement was prohibited. In the case of the property at 132 Neptune Avenue, the Commission approved a larger blufftop setback and a waiver of rights to shoreline armoring. If the potential for bluff erosion in Encinitas is not accurately and fully evaluated, many new developments along the shoreline will likely be placed at risk, resulting in the need for shoreline protection in the future along significant stretches of the City's coastline.

Because of the above-described inconsistencies with the LCP and the Coastal Act, staff recommends that the Commission determine that the project raises a substantial issue regarding conformance with the certified LCP and the Chapter 3 policies of the Coastal Act.

Standard of Review: Certified City of Encinitas Local Coastal Program and the public access and recreation policies of Chapter 3 of the Coastal Act.

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EXHIBITS

[Exhibit 1 – Project Location](#)

[Exhibit 2 – Engineering Design Group Fill Photos](#)

[Exhibit 3 – Local Resolution No. PC 2020-07](#)

[Exhibit 4 – California Coastal Records Project Photo](#)

[Exhibit 5 – Street Side Yard Setback Plans](#)

[Exhibit 6 – Parcel Boundary Map](#)

[Exhibit 7 – Site Plan](#)

[Exhibit 8 – Elevations](#)

[Exhibit 9 – Existing Development on the Bluff Face](#)

[Exhibit 10 – May 2, 2019 Memo from Geopacifica, Inc.](#)

[Exhibit 11 – December 5, 2019 Response from Engineering Design Group](#)

[Exhibit 12 – Appeal Forms](#)

I. APPELLANTS CONTEND

The appellants contend that the project as approved by the City does not conform to the City of Encinitas' certified Local Coastal Program (LCP) with regard to five major issues. First, the appellants contend that the site specific geotechnical report for the project is inadequate because it significantly underestimates the erosion potential of the blufftop site by including the existing shoreline protection in the erosion analysis; by using an inadequate erosion rate; and by not basing the setback on a combination of long-term erosion and site stability to maintain a Factor of Safety of 1.5 for 75 years. Thus, the development does not demonstrate that the development will be sited in a safe location for the life of the structure so as to not require shoreline protection in the future. Second, that the City did not analyze alternative solutions to reduce potential impacts on bluff stability. Third, the City approval allows the retention of nonconforming development, including existing stairs on the bluff face and a reduced street side yard setback, with the new development of the site. Fourth, the proposed home has potential to create adverse visual impacts in the future because the amount of erosion expected at the site over the lifetime of the structure may lead to the exposure of the proposed basement, which is inconsistent with the visual resources policies of the certified LCP that requires new development to preserve the scenic qualities of the surrounding bluffs; and fifth, the City should have required the applicant to develop a plan to remove the basement along with other portions of the home or incrementally retreat from the bluff edge should erosion cause a reduction in the geologic setback in the future.

II. LOCAL GOVERNMENT ACTION

The coastal development permit for the project was approved with conditions by the City of Encinitas Planning Commission on March 19, 2020 ([Exhibit 3](#)). Specific Condition A prohibits permanent irrigation and grading improvements within 40 feet of the coastal bluff edge setback, requires the use of Best Management Practices (BMP) to control runoff and erosion during construction and after completion of the project to divert surface water away from the bluffs, and requires recordation of an open space deed restriction over the coastal bluff face within the parcel. Additionally, Specific Conditions BL2 and BL3 require submission of an "as-built geotechnical report" to verify recommendations of the Geotechnical Report are implemented and on final construction plans and structural calculations for the new residence, and that the property owners participate in any comprehensive plan adopted by the City to address coastal bluff recession and shoreline erosion problems in the City. Further, Specific Condition B, added during the March 19 Planning Commission hearing, requires that the applicants waive any rights to future shoreline protection.

III. APPEAL PROCEDURES

After certification of a Local Coastal Program (LCP), the Coastal Act provides for limited appeals to the Coastal Commission of certain local government actions on coastal development permits.

Section 30603(b)(1) of the Coastal Act states:

The grounds for an appeal pursuant to subdivision (a) shall be limited to an allegation that the development does not conform to the standards set forth in the certified local coastal program or the public access policies set forth in this division.

Coastal Act Section 30625(b) states that the Commission shall hear an appeal unless it determines:

With respect to appeals to the commission after certification of a local coastal program that no substantial issue exists with respect to the grounds on which an appeal has been filed pursuant to Section 30603.

If the staff recommends "substantial issue" and no Commissioner objects, the Commission will proceed directly to the de novo portion of the hearing on the merits of the project, then, or at a later date. If the staff recommends "no substantial issue" or the Commission decides to hear arguments and vote on the substantial issue question, those allowed to testify at the hearing will have 3 minutes per side to address whether the appeal raises a substantial issue. It takes a majority of Commissioners present to find that no substantial issue is raised. If substantial issue is found, the Commission will proceed to a full public hearing on the merits of the project then, or at a later date, reviewing the project de novo in accordance with sections 13057-13096 of the Commission's regulations. If the Commission conducts the de novo portion of the hearing on the permit application, the applicable standard of review for the Commission to consider is whether the proposed development is in conformity with the certified Local Coastal Program (LCP).

In addition, for projects located between the sea and the first public road paralleling the sea, Section 30604(c) of the Act requires that a finding must be made by the approving agency, whether the local government or the Coastal Commission on appeal, that the development is in conformity with the public access and public recreation policies of Chapter 3 of the Coastal Act. In other words, in regard to public access questions, the Commission is required to consider not only the certified LCP, but also applicable Chapter 3 policies when reviewing a project on appeal.

The only persons qualified to testify before the Commission at the "substantial issue" stage of the appeal process are the applicant, persons who opposed the application before the local government (or their representatives), and the local government. Testimony from other persons must be submitted in writing. At the time of the de novo portion of the hearing, any person may testify.

The Coastal Act requires that the Commission shall hear an appeal unless no substantial issue exists with respect to the grounds on which the appeal was filed under Section 30603. (§ 30625(b)(2).) Section 13115(c) of the Commission regulations provides that the Commission may consider the following five factors when determining if a local action raises a significant issue:

1. The degree of factual and legal support for the local government's decision that the development is consistent or inconsistent with the certified LCP;
2. The extent and scope of the development as approved or denied by the local government;
3. The significance of the coastal resources affected by the decision;
4. The precedential value of the local government's decision for future interpretations of its LCP; and
5. Whether the appeal raises only local issues, or those of regional or statewide significance.

The Commission may, but need not, assign a particular weight to a factor.

Even when the Commission chooses not to hear an appeal, appellants nevertheless may obtain judicial review of the local government's coastal permit decision by filing a petition for a writ of mandate pursuant to the Code of Civil Procedure, section 1094.5.

The City of Encinitas has a certified Local Coastal Program (LCP), and the subject site is located in an area where the Commission retains appeal jurisdiction because it is located between the first public road and the sea. Therefore, before the Commission considers the appeal de novo, the appeal must establish that a substantial issue exists with respect to the grounds on which an appeal has been filed pursuant to Section 30603. In this case, for the reasons discussed further below, the Commission exercises its discretion to determine that the development approved by the City raises substantial issue with regard to the appellant's contentions regarding coastal resources.

IV. SUBSTANTIAL ISSUE MOTION AND RESOLUTION

Motion:

I move that the Commission determine that Appeal No. A-6-ENC-20-0022 raises NO substantial issue with respect to the grounds on which the appeal has been filed under § 30603 of the Coastal Act.

Staff recommends a **NO** vote. Failure of this motion will result in a de novo hearing on the application, and adoption of the following resolution and findings. Passage of this motion will result in a finding of No Substantial Issue and the local action will become

final and effective. The motion passes only by an affirmative vote by a majority of the Commissioners present.

Resolution:

The Commission hereby finds that Appeal No. A-6-ENC-20-0022 presents a substantial issue with respect to the grounds on which the appeal has been filed under § 30603 of the Coastal Act regarding consistency with the certified Local Coastal Plan and/or the public access and recreation policies of the Coastal Act.

V. SUBSTANTIAL ISSUE FINDINGS AND DECLARATION

A. Project Description and Background

The project approved by the City of Encinitas on March 19, 2020 allows for demolition of two existing single-family residences on two adjacent lots, one a bluff-top lot; consolidation of the lots; and construction of a new approximately 7,830 sq. ft. two-story single-family residence with an approximately 8,193 sq. ft. basement/subterranean garage and a pool on a combined 22,852 sq. ft. lot. The basement and first floor are proposed to be located approximately 53 feet from the coastal bluff edge, and the second floor is proposed to cantilever within 42.5 feet of the bluff edge. The basement is proposed to provide the foundation for the house. Existing unengineered riprap and fill located on the beach at the base of the bluff would remain.

The subject site is located on the west side of Fifth Street, at the intersection of Fifth Street, Sylvia Street and Neptune Avenue, approximately 900 feet north of Moonlight State Beach and approximately 1 mile south of Beacon's Beach, in the City of Encinitas ([Exhibit 1](#)).

The existing home at 100 Fifth Street, the bluff top lot, was constructed prior to the passage of the Coastal Act in approximately 1958. According to the applicant, the existing fill located below the site at the toe of the bluff was placed between approximately 1953 and 1960 ([Exhibit 2](#)). The riprap appears, based on photographs, to have been placed in the years between 1979 and 1989. There is no Commission permit history for either the rock or the fill. Additionally, the bluff face at 100 Fifth Street contains remnants of a wooden staircase, wooden retaining walls and a switchback trail. The City's approval allows retention of these structures. The existing home at 104 Fifth Street, the inland parcel, contains a nonconforming garage located within the required 10-foot street side yard setback.

B. Geologic Stability

Bluff Stability and Erosion

The project approved by the City is located within the City's Coastal Bluff Overlay Zone. The appellants contend that the development is inconsistent with the LCP provisions

that require the site-specific geotechnical report to demonstrate 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 of bluff stabilization to protect the structure in the future...” and to analyze “[h]istoric, current, and foreseeable-cliff erosion...” The pertinent LCP provisions are below:

Public Safety Policy 1.3 of the City’s certified Land Use Plan (LUP) requires 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.

Section 30.34.020(C)(1) of the City’s certified Implementation Plan (IP) states, in part:

1. Development and improvement in compliance with the development standards in paragraph B “Development Standards,” proposing no structure or facility on or within 40 feet of the top edge of the coastal bluff (except for minor accessory structures and improvements allowed pursuant to paragraph B1b of this section), and proposing no preemptive measures as defined below, shall be subject to the following: submittal and acceptance of a site-specific soils report and geotechnical review described by paragraph D “Application Submittal Requirements” of this section. The authorized decision-making authority for the proposal shall make the findings required based on the soils report and geotechnical review for any project approval. A second story cantilevered portion of a structure which is demonstrated through standard engineering practices not to create an unnecessary surcharge load upon the bluff area may be permitted 20% beyond the top edge of bluff setback if a finding can be made by the authorized agency that no private or public views would be significantly impacted by the construction of the cantilevered portion of the structure.

Section 30.34.020(D) of the City’s certified IP states, in part:

*APPLICATION SUBMITTAL REQUIREMENTS. Each application to the City for a permit or development approval for a 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” of this section. 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 of bluff stabilization to protect the structure in the future. Each review/report shall consider, describe and analyze the following:*

1. *Cliff geometry and site topography, extending the surveying work beyond the site as needed to depict unusual geomorphic conditions that might affect the site.*
2. *Historic, current and foreseeable cliffs erosion, including investigation or recorded land surveys and tax assessment records in addition to land use of historic maps and photographs where available and possible changes in shore configuration and sand transport.*
3. *Geologic conditions, including soil, sediment and rock types and characteristics in addition to structural features, such as being, joints and faults.*
4. *Evidence of past or potential landslide conditions, the implications of such conditions for the proposed development, and the potential effects of the development on landslide activity.*
5. *Impact of construction activity on the stability of the site and adjacent area.*
6. *Ground and surface water conditions and variations, including hydrologic changes caused by the development (e.g., introduction of irrigation water to the groundwater system; alterations in surface drainage).*
7. *Potential erodibility of site and mitigating measures to be used to ensure minimized erosion problems during and after construction (i.e., landscaping and drainage design).*
8. *Effects of marine erosion on seacliffs and estimated rate of erosion at the base of the bluff fronting the subject site based on current and historical data.*
9. *Potential effects of seismic forces resulting from a maximum credible earthquake.*
10. *Any other factors that might affect slope stability.*
11. *Mitigation measures and alternative solutions for any potential impacts.*

*The report shall also express a professional opinion as to whether the project can be designed or located so that it will neither be subject to nor contribute to significant geologic instability **throughout the life span of the project**. The report shall use a current acceptable engineering stability analysis method and shall also describe the degree of uncertainty of analytical results due to assumptions and unknowns. The degree of analysis required shall be appropriate to the degree of potential risk presented by the site and the proposed project.*

In addition to the above, each geotechnical report shall include identification of the daylight line behind the top of the bluff established by a bluff slope failure plane analysis. This slope failure analysis shall be performed according to geotechnical engineering standards, and shall:

- a. Cover all types of slope failure.*
- b. Demonstrate a safety factor against slope failure of 1.5.*
- c. Address a time period of analysis of 75 years.*

[Emphases added.]

As mentioned, the project approved by the City is located within the certified IP Coastal Bluff Overlay Zone and the foundation of the new residence would be sited approximately 53 feet from the edge of an approximately 60 ft.-high coastal bluff subject to marine erosion. An appropriately safe setback must ensure that the residence is stable and safe from erosion hazards over its lifetime without having to rely on any shore or bluff stabilization to protect the structure in the future. Thus, in order to find the appropriate geologic setback, the certified LCP requires that not only must an adequate factor of safety of 1.5 be shown under present conditions, but that it must also demonstrate that an adequate factor of safety of 1.5 will be maintained over 75 years, and cover all types of slope failure.

Assessing the stability of slopes against landsliding is undertaken through a quantitative slope stability analysis. In such an analysis, the forces resisting a potential landslide are first determined; these are essentially the strength of the rocks or soils making up the bluff. Next, the forces driving a potential landslide are determined; these forces are the weight of the rocks as projected along a potential slide surface. The resisting forces are divided by the driving forces to determine the “factor of safety.” A value below 1.0 is theoretically impossible, as the slope would have failed already. A value of 1.0 indicates that failure is imminent. Factors of safety at increasing values above 1.0 lend increasing confidence in the stability of the slope. The industry standard for new development is a factor of safety of 1.5. A slope stability analysis is performed by testing hundreds of potential sliding surfaces. The surface with the minimum factor of safety will be the one on which failure is most likely to occur. Generally, as one moves back from the top edge of a slope, the factor of safety against landsliding increases. Therefore, to establish a safe setback for slope stability from the edge of a coastal bluff, one needs to find the distance from the bluff edge at which the factor of safety is at least equal to 1.5. At that location, the structure would be considered safe at the time it was constructed. However, in order for new development on bluffs to be sited in a reasonably safe location for the life of the structure (75 years), the estimated erosion rate per year must be multiplied by 75 (years), and then added to the setback of at least a factor of safety of 1.5 for the site.

The plans approved by the City require a 53-foot setback. The local Resolution ([Exhibit 3](#)) contains the following finding under *Findings for Coastal Development Permit (1)*, “The building setback of 53 feet from the top of bluff accommodates the calculated

factor of safety (1.5) setback for the seismic condition of 15 feet, plus an erosion rate of 0.51 feet/year over 75 years which results in a total of 38 feet.” Thus, the City appropriately added these two factors together in its calculation of where a safe setback on the site is.

However, as approved by the City, a 1.5 FOS of 15 feet for the subject site is unlikely to be sufficient as it appears to rely on the existing shoreline protection. The *Updated Geotechnical Investigation and Foundation Recommendations* by Engineering Design Group (December 21, 2018) did not undertake a slope stability analysis assuming that the existing armoring was not in place. Instead, it appears that Engineering Design Group assumed that the existing shoreline protective devices will remain over the lifetime of the **new** home. [Exhibit 2](#) shows the existing riprap and fill at the base of the bluff. Engineering Design Group conducted a slope stability analysis that included the existing riprap and fill, and asserts that “the 52 foot proposed setback distance of the new residence from the mapped top of bluff, has a factor of safety great than 1.5 when considering the combination of static/pseudo static and coastal bluff retreat rates.” In other words, the report determined that a setback of 52 feet from the edge of bluff is sufficient to achieve the required FOS. (As previously discussed, the actual calculated setback is 53 feet, thus, it appears the “52-foot” setback discussed in this section by Engineering Design Group is an incorrect keying of the determined “53-foot” setback).

In addition to problems in the way the FOS was determined, no data has been provided to justify or explain the erosion rate of .51 used. The geotechnical information submitted by the applicant suggests the appropriate erosion rate is much smaller. The *Updated Geotechnical Investigation and Foundation Recommendations* by Engineering Design Group determined the long-term erosion rate over 75 years would be 24.8 ft. (0.33ft./year). To determine this rate, Engineering Design Group relied on a research study of regional historic seacliff retreat by *Lee and others*¹ that estimated “a maximum annual bluff-edge retreat rate of 0.22 to 0.33 feet per year,” or between 16.5 to 24.8 feet over 75 years. Engineering Design Group also relied studies by Benumof (1999)², that found “erosion rates along the Encinitas portion of the San Diego coastline are documented with a mean erosion rate of 0.25 ft/yr,” consistent with the erosion rates calculated by *Lee and others*¹. Engineering Design Group concludes that in their opinion, “an erosion rate of 0.33 feet per year shall be applied [to the subject site], resulting in a coastal bluff retreat over the next 75 years of 24.8 feet.” Based on this retreat rate and as previously mentioned, it was the opinion of Engineering Design Group that the new construction, proposed to be a minimum of 53-feet from the bluff edge, would not be endangered by coastal bluff retreat within the next 75 years.

The long-term erosion rate (0.33 ft./year) used by the *Updated Geotechnical Investigation and Foundation Recommendations* report is lower than the long-term

¹ Lee, L.J., Pinckney, C., and Bermis, C., 1976, Sea bluff erosion: American Society of Civil Engineers, National Water Resources and Ocean Engineering Convention

² Benumof, Benjamin T., and Griggs, Gary B.; Journal of the American Shore and Beach Preservation Association, Volume 67, No. 4, dated October 1999.

future erosion rate (0.49 ft./year) that has been required for the six most recent new bluff top home approvals in Encinitas, all six of which were approved on appeal by the Commission (Ref: A-6-ENC-09-002/Wellman, A-6-ENC-09-003/Wellman, A-6-ENC-09-040/Okun, A-6-ENC-09-041/Okun, and A-6-ENC-13-0210/Lindstrom, A-6-ENC-16-0060/Martin). When applied over a period of 75 years, an erosion rate of 0.49 ft./year translates into a bluff retreat of approximately 36.75 feet. In their *Updated Geotechnical Investigation and Foundation Recommendations* for the subject site, Engineering Design Group failed to evaluate any potential future accelerated erosion rates that may occur due to future sea level rise conditions or any increase in bluff retreat rate that may accompany sea level rise due to bluffs being exposed to wave action for longer periods of time during each tidal cycle.

Perhaps in response to past Commission direction, the City files include a May 2, 2019 memo from the City's Geotechnical Consultant, James Knowlton, to the local project planner stating, "I am willing to approve the geotechnical report utilizing a 14-foot factor-of-safety setback and a 39 foot 75-year erosion rate setback (utilizing a coastal commission erosion rate of 0.52ft./yr.) for a total setback of 53 feet." On December 5, 2019, the project's geotechnical consultant Engineering Design Group provided a letter to the applicant in response to a City comment to "clarify that the proposed building setback from the top of bluff, as it relates to erosion rate and factor of safety... The building setback of 53 feet accommodates the calculated factor of safety for the seismic condition of 15 feet, plus an erosion rate of 0.51 ft./yr over 75 years which results in a total of up to 38 feet." However, no analysis has been provided to explain why the 14-foot FOS presented in the May 2019 memo was changed to a 15-foot FOS in the December 2019 letter; why the May 2019 0.52 feet/year estimate was changed to 0.51 feet/year in the December 2019 letter; or how the 0.51 and 0.52 feet/year retreat rates (or approximately 38 feet over 75 years) estimates were calculated, since no calculations for these findings are contained within the December 2018 *Updated Geotechnical Investigation and Foundation Recommendations* report, nor were these calculations provided to the Commission for review. Thus, while the erosion rate used for the project is generally consistent with erosion rates determined for other recent Encinitas projects, staff lacks information to determine if the rate is appropriate for the subject site.

The LCP is clear that new development which "may require structural measures to prevent destructive erosion or collapse" is not permitted. Thus, landowners cannot rely on structural devices such as riprap and seawalls when siting new structures on bluff tops. If a shoreline protective device exists in front of a lot but is no longer required to protect the existing structure it was authorized to protect, the Commission should not authorize new development that might perpetuate the need for the shoreline armoring. Otherwise, if a new structure is able to rely on shoreline armoring that is no longer required to protect an existing structure, then the new structure can be sited without a sufficient setback, perpetuating an unending construction/redevelopment loop that prevents proper siting and design of new development, as required by the LCP. The history of the riprap is unclear, but it does not appear to have been authorized by a coastal development permit to protect an existing structure. Based on review of historical imagery ([Exhibit 4](#)) and as provided in the *Updated Geotechnical Investigation*

and Foundation Recommendations report, photographs have been used to identify that the fill was placed at the toe of the bluff between approximately 1953 and 1960, and that the riprap was placed between approximately 1979 and 1989, both without the benefit of a permit. The proposed residence will be a new structure proposed to be sited in a location that appears to be dependent on structural measures to avoid being at risk from erosion. This raises a substantial issue.

Furthermore, LCP Policy 30.34.020(D) prohibits development that is not “expected to be reasonably safe” from failure and erosion over its lifetime without having to propose any shoreline or bluff stabilization to protect the structure in the future. As noted, the existing riprap and fill was not designed or approved to accommodate future redevelopment of the blufftop parcel. While the existing riprap and fill will provide a level of protection for some period of time, the life expectancy of these shoreline protective devices is unknown. Therefore, to ensure no new shoreline protection devices may be needed in the future, new development should be sited where it will not be dependent on the existing shoreline protective devices for protection.

LCP Policy 30.34.020(C)(2)(c) provides that “No preemptive measure at the base of the bluff or along the beach shall be approved until a comprehensive plan is adopted as [City] Council policy for such preemptive treatment.” The City has not adopted such a plan, and the riprap at the site should not be retained with new development at the site. Further, LUP Public Safety Element Policy 1.3 requires the City to prevent development that may require structural measures to prevent destructive erosion or collapse. Since the erosion calculations for the project consider the existing riprap to protect the site, the project as proposed relies on structural measures to prevent erosion at the site, inconsistent with LUP Public Safety Element Policy 1.3, raising a substantial issue.

Finally, no analysis was provided regarding hazards associated with placement of a pool on the bluff top lot. Thus, a substantial issue has been raised.

Future Shoreline Protection

For the subject project to be consistent with Section 30.34.020(D), applicants proposing new development must waive any rights to construct future shoreline protection. The waiver of future shoreline protection is intended to ensure that if there are deficiencies in the predictions made in the geotechnical studies, such that no new shoreline protection will ever be constructed.

The uncertainty about future shoreline conditions in the face of anticipated sea level rise further emphasizes the importance of having new development not be allowed to rely on future shoreline protection. The Commission typically requires that applicants waive any future rights to shoreline protection, remove the development if it is no longer safe from failure and erosion without having to propose any shoreline armoring, remove the development if any government agency has ordered that the structures are not to be occupied due to hazards or requires the structures to be removed, and a geotechnical investigation be performed for the site that addresses whether any portions of the residence are threatened by coastal hazards if the edge of bluff recedes within 10-feet

of a blufftop residence. In this case, the City did require a waiver of any future rights to construct bluff or shoreline protective devices to protect the development but did not require additional removal triggers or geotechnical analyses if the development is endangered from coastal hazards in the future. This raises a substantial issue.

C. Alternatives Analysis

Section 30.34.020(D)11, which requires geotechnical reports to analyze “*alternative solutions for any potential impacts*,” such as siting or design options that would reduce encroachment into the geologic setback and mitigate bluff erosion impacts. As previously described, a geotechnical analysis of the site stability without factoring in the existing shoreline protection has not been undertaken. However, the setback required to maintain an FOS of 1.5 for 75 years is likely significantly further landward than the approved 53-foot setback. The subject lot from the edge of bluff to the eastern property line is approximately 190 feet in length, and ranges from 55 to 75 feet in width. Thus, a smaller size home than the proposed 16,023 sq. ft. structure (including the proposed basement and subterranean garage), will likely be necessary to accommodate a safe setback.

As approved the proposed development complies with all of the City’s applicable yard setback standards, except for the required street side yard setback. A smaller front-yard setback, in combination with a smaller home, could potentially allow a new to be sited safely on site. However, no alternative project designs or siting that would reduce potential impacts on bluff stability have been evaluated. In addition, as discussed in further detail below under Sections E and F, an alternative that does not include a basement should be evaluated.

As detailed above, the proposed development does not meet the stability requirements of the LCP. Thus, the lack of an alternatives analysis raises a substantial issue.

D. Termination of Nonconforming Development

The project approved by the City allows the new residence to be located within the LCP-required 10-foot street side yard setback. The existing residence at 100 Fifth Street proposed to be demolished includes a garage that encroaches approximately 5-feet into the 10-foot required street side yard setback ([Exhibit 5](#)). The new development proposes a new barbecue fixture and pool and spa features as structural elements within the required 10-foot setback. Section 30.76.090(C) of the LCP requires that:

If a nonconforming use or structural nonconformity is enlarged, extended, expanded or in any other manner changed to increase its inconsistency with the regulations of this title, then, in addition to any other consequences imposed by this Code, any entitlement to thereafter maintain the nonconformity is terminated.

All of the existing structures on the site will be demolished, thus, all the new development should conform to all existing LCP standards and requirements, including the required 10-foot street side yard setback. The City’s findings state that in

accordance with Section 30.76.050 (Limit on Utilizing Nonconformity-General), the applicant can maintain the encroachment into the street side yard setback as an existing legal nonconformity so long as it is not enlarged, expanded or increased in intensity. IP Section 30.76.050 requires:

A. It is unlawful for any person to enlarge, extend, expand or in other manner change a nonconforming use or a structural nonconformity so as to increase its inconsistency with the zoning regulations of this chapter.

B. A nonconforming use may be replaced with the same or a similar use as long as the subsequent use does not enlarge, extend, expand or in any other manner increase the inconsistency with the regulations of this title.

C. Repairs and maintenance may be performed on structural nonconformities so long as the nonconformity is not enlarged, relocate or increased in intensity, unless permitted by this chapter.

IP Section 30.76.020 (Nonconforming Use) defines nonconforming uses:

A “nonconforming use” is a use that:

A. Is not within the scope, either expressly or implicitly, of the zoning restrictions set forth in this title that announce the purpose, intent, permissible uses, accessory uses and prohibited uses for the zone in which the particular use is located;

B. Did comply with the zoning regulations contained in the Zoning Ordinance in effect at the time the use was created and was lawfully created; and

C. Has not been terminated in accordance with the provisions of this chapter.

However, while IP Section 30.76.050 does allow nonconforming uses to be replaced, it does not allow for the replacement of structural nonconformities, as defined by Section 30.76.030 (Structural Nonconformity), as defined in the IP:

“Structural nonconformity” is a physical aspect of a building, structure or improvement that:

*A. Does not conform to the development standards announced in this title to include, without limitations, height, **setbacks**, lot area, parking, type of building, or coverage of lot by structure;*

B. Did comply with the development standards contained in the Zoning Ordinance in effect at the time the building, structure or improvement was constructed or structurally altered and was lawfully constructed; and

C. Has not been terminated in accordance with the provisions of this chapter.

Thus, the approved encroachment into the street side yard setback is not consistent the LCP.

The project as approved by the City also retains nonconforming development on the bluff face. The western-most portion of the subject site contains the top portion of a coastal bluff and includes remnants of a wooden staircase, as well as wooden retaining structures along a switchback path down the face of the bluff ([Exhibit 6](#)). The subject parcel's boundaries terminate approximately one third of the way down the bluff face, however, the switchback path continues and leads to a second staircase on the bluff face that terminates immediately adjacent to the southern end of the existing fill and riprap at the toe of the bluff beneath the site. The project's *Updated Geotechnical Investigation and Foundation Recommendations* found that, "in general, it appears the feature consists primarily of import fill pushed over the bluff face and buttressed with rip rap."

The local staff report found that:

The length of the path that is located on the property is to be maintained per EMC 30.76 (Nonconformities) since it was established prior to the adoption of the 1972 Coastal Act. The rest of the described path and the existing rip rap located at the toe of the bluff face is located offsite... the applicant can maintain the existing legal nonconformity so long as the nonconformity is not enlarged, relocated or increased in intensity.

Since the proposed scope of work does not expand or modify the development on the bluff face, the local action permitted the applicant to retain the development on the bluff. However, IP Section 30.34.020(B)(2) states that no structure, facility, improvement or activity can be allowed on the face or at the base of a coastal bluff. Further, in addition to the development on the bluff face being inconsistent with the City's LCP, these nonconforming features present visual impacts and could present safety hazards to beachgoers below and should be removed with redevelopment of the site ([Exhibit 9](#)). Thus, retaining the development on the bluff face raises a substantial issue.

E. Visual Resources

An additional contention of the appellants is that the proposed home has the potential to create adverse visual impacts in the future if erosion exposes the western wall of the proposed basement, which is inconsistent with the visual resources policies of the certified LCP that require new development to preserve the scenic qualities of the surrounding bluffs.

Section 30.34.020(B)(8) of the certified Implementation Plan 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 seaward-most wall of the basement of the home is proposed to be located approximately 53-feet from the bluff edge. As stated previously, because the applicants did not undertake an appropriate slope stability analysis for the subject site, it is not possible to determine the appropriate setback for the subject site to maintain an FOS of 1.5 for 75 years. However, it is likely that the appropriate setback will be significantly larger than 53 feet. The basement walls could become exposed if the erosion rate is slightly higher than expected. The exposure of the basement walls would be inconsistent with the LCP policies requiring structures visible from public vantage points to be protective of the natural scenic qualities of the scenic qualities of the surrounding area, which for the most part are un-armored, natural bluffs. This inconsistency also raises a substantial issue.

F. Future Removal of Development

The proposed development includes an 8,193 sq. ft. basement/subterranean garage to provide the foundation for the house located approximately 53-feet from the bluff edge. The appellants contend that since the basement is proposed to provide the foundation for the house, the basement is difficult to remove in the future and is therefore inconsistent with Section 30.34.020(B)(1)(a) of the City's certified IP, which states, in part:

- a. ...Any new construction shall be specifically designed and constructed such that it could be removed in the event of endangerment...

The City's certified LUP Public Safety Element Policy 1.6(f) also contains similar language to require that any new construction be designed and constructed such that it could be removed in the event of endangerment. It is unlikely that the basement could be specifically designed and constructed such that it could be removed in case of endangerment. In addition, once exposed, the basement would essentially serve the same purpose as a shoreline protective device in the same manner that caissons and deepened foundations do. Furthermore, constructing a basement in a potentially geologically unstable environment such as within a coastal bluff may create adverse impacts on the integrity of the bluff itself if the basement structure were ever required to be removed. The City did not require the applicant to develop a feasible plan to remove the basement/subterranean garage along with other portions of the home, or incrementally retreat from the bluff edge should erosion cause a reduction in the geologic setback in the future. Therefore, this inconsistency also raises a substantial issue.

The intent of LCP Section 30.34.020(B)(1)(a) is to ensure that any structures that could potentially be threatened by erosion within the lifetime of the structure are able to be removed. As detailed above, siting the proposed residence 53 feet back from the bluff edge is likely to result in the structure being at risk from erosion and bluff instability. Construction of a basement 53 feet from the bluff edge could result in the basement walls becoming exposed if erosion proceeds faster than expected. However, removing the basement structure would likely require a great deal of alteration of the bluff and could be infeasible if the excavation would threaten the overall stability of the bluff.

Thus, construction of a basement and subterranean garage in the proposed location raises a substantial issue.

While not a substantial issue standard of review, the precedential value of the local government's decision for future interpretations of its LCP is important with regard to this project. At the Commission's August 2016 hearing for CDP #A-6-ENC-16-0068 (Hurst, 808 Neptune Avenue), the Commission found Substantial Issue for a blufftop project located approximately 1 mile north of the subject site that raised similar issues to the subject project, and ultimately denied the project on De Novo in at the Commission's March 2019 hearing. Additionally, at the Commission's August 2016 hearing, the Commission found Substantial issue for another similar blufftop project located approximately 0.42 miles north of the subject site (A-6-ENC-16-0067/Meardon, 438 Neptune Avenue). Further, at the Commission's July 2016 hearing, the Commission found Substantial Issue for a blufftop project that raised nearly identical issues as the subject project, located approximately 0.42 miles north of the subject site (A-6-ENC-16-0070/Martin, 444 Neptune Avenue). Further, at the July 2016 hearing the Commission found Substantial Issue for another project, located just 5 lots to the north of the subject site, that raised similar issues as the subject project (A-6-ENC-13-0210/Lindstrom, 132 Neptune Avenue). If the potential for bluff erosion in Encinitas is not accurately and fully evaluated, new development along the shoreline will likely result in the need for shoreline protection in the future.

G. Conclusion

Based on the information cited above, the City's approval of the construction of the new home at the subject site is inconsistent with various sections of the City's certified LCP related to siting new development on a coastal blufftop to assure it will be safe from failure and erosion over its lifetime without requiring shoreline protection, alternatives to reduce potential impacts to bluff stability, retention of a nonconforming setback with new development, a removal plan for the new development, and protection of the natural scenic qualities of the bluffs. Therefore, the Commission finds that a Substantial Issue exists with respect to the consistency of the local government action with the City's certified Local Coastal Program.

H. Substantial Issue Factors

As discussed above, there is inadequate factual and legal support for the City's determination that the proposed development is consistent with the certified LCP. The other factors that the Commission normally considers when evaluating whether a local government's action raises a substantial issue also support a finding of substantial issue. While the extent and scope of this particular development is a single-family residence, the objections to the project suggested by the appellants, including geologic stability, the lack of an alternatives analysis, allowing retention of a nonconforming setback with new development, future removal of development threatened by erosion, and protection of visual resources raise substantial issues of regional and statewide significance due to the frequency of development on the state's hazardous blufftops. The local decision creates a poor precedent with respect to the proper interpretation of

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the City's LCP, as the City's failure to require an adequate geotechnical analysis are not only incorrect interpretations of the LCP, but they could also set an adverse precedent elsewhere along the coast. In addition, the coastal resources affected by the decision are significant, due to the approximately three miles of coastal bluffs with existing bluff top development in Encinitas.

APPENDIX A – SUBSTANTIVE FILE DOCUMENTS

Updated Geotechnical Investigation and Foundation Recommendations Proposed New Hanlon Residence 100-104 5th Street, Encinitas California

Encinitas Planning Commission Agenda Report for Item 8D, March 19, 2020