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Appeal Filed: 1/10/2022
Action Deadline: 3/22/2022
Staff: Erik Martinez - SF
Staff Report: 2/18/2022
Hearing Date: 3/11/2022

STAFF REPORT SUBSTANTIAL ISSUE DETERMINATION

Appeal Number: A-2-SMC-22-0003

Applicants: Suncal Properties & Investments Partnership LLC

Appellants: Green Foothills

Local Government: San Mateo County

Local Decision: San Mateo County Coastal Development Permit Number PLN2020-00043, approved by San Mateo County Planning Commission on December 8, 2021

Project Location: Vacant lot at 989 Ocean Boulevard between Bernal Avenue and Precita Avenue in unincorporated Moss Beach, San Mateo County (APN 037-278-090)

Project Description: Construction of a new 1,861 square foot single-family residence with an attached 423 square foot two-car garage, a reduced front setback (14 feet, 8 inches where at least 20 feet is required), increased allowable site coverage (32% where at most 25% is allowed) on a substandard 4,761 square-foot parcel, and a sewer mainline extension

Staff Recommendation: No Substantial Issue Exists

IMPORTANT HEARING PROCEDURAL NOTE

Please note that this is a substantial issue hearing only, and testimony will be taken *only* on the question of whether the appeal raises a substantial issue. Such testimony is generally limited to three minutes total per side (although the Commission's Chair has the discretion to modify these time limits), so please plan your testimony accordingly. Only the Applicant, Appellant, persons who opposed the application before the local government, the local government, and their proxies/representatives are allowed to

testify during this substantial issue phase of the hearing. Other interested parties may submit comments in writing. If the Commission finds that the appeal raises a substantial issue, then the Commission takes jurisdiction over the underlying coastal development permit (CDP) application and will then review that application at a future Commission meeting, at which time all persons are invited to testify. If the Commission finds that the appeal does not raise a substantial issue, then the local government CDP decision stands, and is thus final and effective.

SUMMARY OF STAFF RECOMMENDATION

San Mateo County approved a coastal development permit (CDP) authorizing the construction of a new 1,861 square foot single-family residence with an attached two-car garage (423 square feet), a reduced front setback (14 feet, 8 inches where at least 20 feet is required), and an increase in allowed site coverage (32 percent where at most 25 percent is allowed) on a substandard (i.e., smaller than the allowed minimum parcel size for this area) 4,761 square-foot legal parcel located at 989 Ocean Boulevard in the unincorporated Moss Beach area of San Mateo County. The project also includes a sewer mainline extension along Ocean Avenue, between Bernal Avenue and Precita Avenue. The Appellant contends that the approved development raises LCP consistency issues related to coastal hazards. Specifically, the Appellant contends that: the approved development is inconsistent with LCP provisions that require new development to adequately evaluate bluff retreat to identify appropriate setbacks based on historic and expected trends; the erosion rate relied on by the County is an underestimate; the County did not incorporate best available science for sea level rise; and the County did not adequately evaluate or account for slope stability over time, potential impacts of deep-seated landslides, or the role of cumulative stormwater and groundwater increases on erosional processes in the area. Additionally, the Appellant contends that the proposed development would be wholly dependent on Ocean Boulevard for access as well as essential utilities, which will be problematic when coastal bluff erosion ultimately impacts Ocean Boulevard. And finally, the Appellant questions the validity of some of the County's conditions since they refer to the Commission's Executive Director in some instances.

The LCP requires that new development be set back from coastal blufftop edges to ensure that such development is safe, stable, and won't be threatened by coastal hazards within its economic life span (which must be evaluated for at least 50 years) without reliance on armoring. The LCP also requires that setbacks take into consideration historic and foreseeable erosion (including related to sea level rise), slope stability, evidence of past or potential landslides, wave and tidal action, and groundwater and surface conditions. Finally, regarding access to the site, the LCP requires new residential development to be located within, or in close proximity to, existing developed areas able to accommodate it with adequate public services, including street and road access, and where it will not have significant adverse effects on coastal resources. In this case, the County determined that, as conditioned, the proposed project was designed and set back to assure the stability and structural integrity for at least 50 years as required by the LCP.

With regard to the blufftop setback, there were several issues with the County's analysis. First, the County used an erosion rate that considers bluff stability (i.e., factor of safety/slope stability) and bluff retreat as separate, rather than additive, as required by the LCP and Coastal Act, and the slope stability analysis that was used is over 20 years old. Second, the County seems to have relied on the Applicant's determination that sea level rise would have very little additional influence on the lower bluffs given that it consists of resistant bedrock that extends upward about 75 feet. However, wave uprush, tidal action, and their resultant effect on the frequency and severity of episodic erosion events are all affected by sea level rise and need to be factored into any setback analyses. Third, the County relied on the Applicant's landslide analysis that acknowledges landslides at Seal Cove to the north and in Pillar Point Harbor to the south but concludes that the project area is a relatively stable bluff segment because it has a southeasterly-trending shoreline angle and includes a wide offshore intertidal rock platform that lacks an effective beach, thus the deep-seated landslides are not a concern. While the County found there is no evidence that the project site is within an active landslide, the bluff geology in the area is indeed prone to failures. And fourth, regarding the impacts of the development on stormwater and groundwater increases, the analysis used by the County states that the most obvious and active contributor to blufftop erosion and retreat along Ocean Boulevard is subaerial erosion from stormwater and groundwater inland of the blufftop edge. Thus, the County's analytic framework lacked important coastal hazard considerations.

At the same time, however, the County's approval included a series of conditions of approval relating to coastal hazards, including prohibiting shoreline armoring to protect the approved development, and triggers for removal/relocation when threatened in the future, including when/if access is no longer possible to the site from Ocean Boulevard. Although available evidence suggests that a true 50 year setback would likely be further inland, and possibly inland of the lot itself, such a setback (and project denial) would raise the potential for a takings. Here, the approved development is of a similar size and has been set back to a similar degree as surrounding residences, and any uncertainties about the length of time that the development will be safe from hazards can be addressed by the County's conditions,¹ including as it means that the Applicant here is internalizing the risks of developing in a location that is subject to coastal hazards.

In short, while the County's coastal hazard analysis was not as robust as it should have been, the outcome of the County's decision ensures that the LCP's objectives as they relate to shoreline development in areas subject to coastal hazards are met, including that the public will not need to absorb potential impacts related to potential armoring (as it is prohibited, and the approved development is required to be relocated/removed if/when threatened). Although the County's analytic process raises issues, the outcome suggests that the Commission need not become further involved in this case, and thus staff recommends that the Commission find that **no substantial issue** exists with respect to the County-approved project's conformity with the LCP and the Coastal Act's

¹ And the fact that some of the conditions refer to the Executive Director for determinations, while inartful, does not undermine or somehow invalidate the conditions. On the contrary, although it is uncommon for local CDPs to include Executive Director input, it does happen, and here it can also provide a degree of Commission oversight on these key issues.

public access provisions. The single motion and resolution to do so is found on page 5 below.

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EXHIBITS

Exhibit 1 – Location Map

Exhibit 2 – Site Photos

Exhibit 3 – County-Approved Project Plans

Exhibit 4 – San Mateo County Final Local CDP Action Notice

Exhibit 5 – Appeal of County CDP Action

Exhibit 6 – Coastal Commission Staff Comments (September 29, 2021)

1. MOTION AND RESOLUTION

Staff recommends that the Commission determine that **no substantial issue** exists with respect to the grounds on which the appeal was filed. A finding of substantial issue would bring the CDP application for the proposed project under the jurisdiction of the Commission for de novo hearing and action. To implement this recommendation, staff recommends a **yes** vote on the following motion. Passage of this motion will result in a finding of no substantial issue and adoption of the following resolution and findings, and the local action will become final and effective. Failure of this motion will result in a substantial issue finding and a future de novo hearing on the CDP application. The motion passes only by affirmative vote of a majority of the Commissioners present.

Motion: *I move that the Commission determine that Appeal Number A-2-SMC-22-0003 raises **no substantial issue** with respect to the grounds on which the appeal has been filed under Section 30603 of the Coastal Act, and I recommend a **yes** vote.*

Resolution to Find Substantial Issue: *The Commission hereby finds that Appeal Number A-2-SMC-22-0003 presents no substantial issue with respect to the grounds on which the appeal has been filed under Section 30603 of the Coastal Act regarding consistency with the certified San Mateo County Local Coastal Program and/or the public access and recreation policies of the Coastal Act.*

2. FINDINGS AND DECLARATIONS

A. Project Description and Location

The proposed project is located on a substandard (i.e., smaller than the allowed minimum parcel size for this area) 4,761 square foot parcel (APN 037-278-090) located at 989 Ocean Boulevard between Precita Avenue and Bernal Avenue west of Highway 1 and west of the Half Moon Bay Airport in the unincorporated community of Moss Beach in San Mateo County. The site is currently vacant, covered with a smattering of ruderal vegetation, located approximately 75 feet inland from the edge of the roughly 100-foot tall coastal bluff on the western side, and located inland of Ocean Boulevard (which is located seaward of the site and landward of the blufftop edge). The site is surrounded by single-family residences on all three non-street sides, and access to the residence would be provided via Ocean Boulevard. The parcel is LCP-zoned in the 'one-family residential combined Mid-Coast (S-105)' district (where a minimum lot size of 20,000 square feet is required) and falls in the County's coastal development and geologic hazard districts (the later due to bluff erosion and instability issues the LCP ascribes to the overall broader Seal Cove area). The proposed residence's driveway and the sewer line extension along with other utilities would be located in LCP hazards Zone 2, defined as an area of questionable stability with moderate to high risk, while the majority of the proposed residence would be located in LCP hazards Zone 3, categorized as the most stable of the defined hazardous zones in the LCP with low to moderate risk. See **Exhibit 1** for a location map and see **Exhibit 2** for photographs of the site and surrounding area.

The County-approved project would allow for the construction of a two-story 1,861 square-foot single-family residence with an attached two-car garage (423 square feet) on the site. The County's approval allowed for a variance to reduce the required minimum front yard setback from 20 feet to 14 feet, 8 inches and to increase the maximum allowed site coverage from 25 percent to 32 percent. The project also includes a sewer mainline extension along Ocean Boulevard and involves minor grading. See **Exhibit 3** for the County-approved project plans.

B. San Mateo County CDP Approval

As part of the County and the Coastal Commission's ongoing local development review coordination process, Commission staff sent comments to the County regarding the proposed project when it was being considered locally, expressing concerns regarding the need to appropriately plan for and address coastal hazards affecting the site, including because the LCP requires appropriate setbacks to ensure development will be safe from hazards without reliance on shoreline armoring (see **Exhibit 6**). In response, the County incorporated a series of coastal hazard related conditions in its approval, including prohibiting armoring to protect the approved development, triggers for future removal/relocation of the development if it is threatened by coastal hazards in the future, assumption of hazard risk, real estate disclosure related to such risk and CDP requirements, and requirements for a deed restriction to be recorded against the property to provide additional notice to this and potential future property owners abouts coastal hazard risks and CDP requirements.

Specifically, on December 8, 2021, the San Mateo County Planning Commission approved CDP PLN2020-00043 authorizing the above-described residential development at the subject site, and subject to the above-described conditions. The County's notice of its CDP decision was received in the Coastal Commission's North Central Coast District Office on Tuesday, December 28, 2021 (see **Exhibit 4**), and the Coastal Commission's ten-working day appeal period for this action began on Wednesday, December 29, 2021 and concluded at 5pm on January 11, 2022. One valid appeal (discussed below and shown in **Exhibit 5**) was received during the appeal period.

C. Appeal Procedures

Coastal Act Section 30603 provides for the appeal to the Coastal Commission of certain CDP decisions in jurisdictions with certified LCPs. The following categories of local CDP decisions are appealable: (a) approval of CDPs for development that is located (1) between the sea and the first public road paralleling the sea or within 300 feet of the inland extent of any beach or of the mean high tide line of the sea where there is no beach, whichever is the greater distance; (2) on tidelands, submerged lands, public trust lands, within 100 feet of any wetland, estuary, or stream, or within 300 feet of the top of the seaward face of any coastal bluff; (3) in a sensitive coastal resource area; or (b) for counties, approval of CDPs for development that is not designated as the principal permitted use under LCP. In addition, any local action (approval or denial) on a CDP for a major public works project (including a publicly financed recreational facility and/or a special district development) or an energy facility is appealable to the Commission. This County CDP decision is appealable because it is located within 300 feet of the top of a

coastal bluff and because it is between the sea and the first public road paralleling the sea.

For appeals of a CDP approval, grounds for appeal are limited to allegations that the approved development does not conform to the LCP and/or to Coastal Act public access provisions. For appeals of a CDP denial, where allowed (i.e., only allowed in extremely limited circumstances – see description of appealable actions, above), the grounds for appeal are limited to allegations that the development conforms to the LCP and to Coastal Act public access provisions.

The Commission's consideration of appeals is a two-step process. The first step is determining whether the appeal raises a substantial issue that the Commission, in the exercise of its discretion, finds to be significant enough to warrant the Commission taking jurisdiction over the CDP application. This step is often referred to as the "substantial issue" phase of an appeal. The Commission is required to begin its hearing on an appeal and address at least the substantial issue question within 49 working days of the filing of the appeal unless the applicant has waived that requirement, in which case there is no deadline for Commission action. In this case, the Applicant has not waived the 49 working day requirement, and thus the deadline is March 22, 2022.

The Coastal Act and the Commission's implementing regulations are structured such that a substantial issue is presumed when the Commission acts on this question unless the Commission finds that an appeal does *not* raise a substantial issue, and the Commission considers a number of factors in making that determination.² At this stage, the Commission may only consider contentions raised by the appeal. At the substantial issue hearing, staff will make a recommendation for the Commission to find either substantial issue or no substantial issue. If staff makes the former recommendation, the Commission will not take testimony at the hearing on the substantial issue recommendation unless at least three Commissioners request it, and, if no such full hearing is requested, a substantial issue is automatically found. If the Commission does take testimony, it is generally (and at the discretion of the Commission Chair) limited to three minutes total per side, and only the Applicant, Appellant, persons who opposed the application before the local government, the local government, and their proxies/representatives are allowed to testify, while others may submit comments in writing.

² The term substantial issue is not defined in the Coastal Act. The Commission's regulations indicate that the Commission will hear an appeal unless it "finds that the appeal raises no significant question" (California Code of Regulations, Title 14, Section 13115(b)). Section 13115(c) of the Commission regulations provides, along with past Commission practice, that the Commission may consider the following five factors when determining if a local action raises a substantial 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 and the Coastal Act's public access provisions; (2) the extent and scope of the development; (3) the significance of the coastal resources affected by the decision; (4) the precedential value of the local government's decision for future interpretation 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, and may make a substantial issue determination for other reasons as well.

If, following testimony and a public hearing, the Commission determines that the appeal does not raise a substantial issue, then the first step is the only step, and the local government's CDP decision stands. However, if the Commission finds a substantial issue, the Commission takes jurisdiction over the underlying CDP application for the proposed project, and the appeal heads to the second phase of the hearing on the appeal.

In the second phase of the appeal, if applicable, the Commission must determine whether the proposed development is consistent with the applicable LCP (and in certain circumstances the Coastal Act's public access and recreation provisions). This step is often referred to as the "de novo" review phase of an appeal, and it entails reviewing the proposed project in total. There is no legal deadline for the Commission to act on the de novo phase of an appeal. Staff will make a CDP decision recommendation to the Commission, and the Commission will conduct a public hearing to decide whether to approve, approve with conditions, or deny the subject CDP. Any person may testify during the de novo phase of an appeal hearing (if applicable).

D. Summary of Appeal Contentions

The Appellant contends that the County-approved project raises LCP conformance issues related to coastal hazards. Specifically, the Appellant contends that: the approved development is inconsistent with LCP provisions that require new development to adequately evaluate bluff retreat and to identify appropriate setbacks based on historic and expected trends; the erosion rate relied on by the County is an underestimate; the County did not incorporate best available science for sea level rise; and the County did not adequately evaluate or account for slope stability over time, potential impacts of deep-seated landslides, or the role of cumulative stormwater and groundwater increases on erosional processes in the area. Additionally, the Appellant contends that the proposed development would be wholly dependent on Ocean Boulevard for access as well as essential utilities, which will be critically problematic when coastal bluff erosion ultimately impacts Ocean Boulevard. Finally, the Appellant questions the validity of some of the County's conditions since they refer to the Commission's Executive Director in some instances. See full appeal contentions in **Exhibit 5**.

E. Standard of Review

The standard of review for considering these appeal contentions is the certified San Mateo County LCP (which is made up of a certified Land Use Plan (LUP) and a certified Implementation Plan (IP)) and the public access policies of the Coastal Act (which include Coastal Act Sections 30210 through 30224).

F. Substantial Issue Determination

Applicable LCP Policies

The LCP includes policies designed to minimize risks to life and property, defines and designates hazardous areas, and regulates development on blufftops including requirements for blufftop setback distances, as follows:

LUP Policy 9.1: Definition of Hazard Areas. Define hazardous areas as fault zones and land subject to dangers from liquefaction and other severe seismic impacts, unstable slopes, landslides, coastal cliff instability, flooding, tsunamis, fire, and steep slopes (over 30%).

LUP Policy 9.2: Designation of Hazard Areas. Designate hazardous areas in the Coastal Zone as those delineated on the Geotechnical Hazards Synthesis Map, the Floodway Boundary and Floodway Maps and Flood Insurance Rate Maps adopted under Chapter 35.5 of the San Mateo County Zoning Regulations, and the Natural Hazards Map in the Natural Hazards Chapter of the General Plan.

LUP Policy 9.3: Regulation of Geologic Hazard Areas. Apply the following regulations of the Resource Management (RM) Zoning Ordinance to designated geologic hazard areas: (a) Section 6324.6 - Hazards to Public Safety Criteria. (b) Section 6326.2 - Tsunami Inundation Area Criteria. (c) Section 6326.3 - Seismic Fault/Fracture Area Criteria. Require geologic reports prepared by a certified engineering geologist consistent with "Guidelines for Geologic/Seismic Reports" (CDMG Notes #37) for all proposed development. (d) Section 6326.4 - Slope Instability Area Criteria.

LUP Policy 9.7: Definition of Coastal Bluff or Cliff. Define coastal bluff or cliff as a scarp or steep face of rock, decomposed rock, sediment or soil resulting from erosion, faulting, folding or excavation of the land mass and exceeding 10 feet in height.

LUP Policy 9.8: Regulation of Development on Coastal Bluff Tops. a. Permit bluff and cliff top development only if design and setback provisions are adequate to assure stability and structural integrity for the expected economic life span of the development (at least 50 years) and if the development (including storm runoff, foot traffic, grading, irrigation, and septic tanks) will neither create nor contribute significantly to erosion problems or geologic instability of the site or surrounding area.

b. Require the submittal of a site stability evaluation report for an area of stability demonstration prepared by a soils engineer or a certified engineering geologist, as appropriate, acting within their areas of expertise, based on an on-site evaluation. The report shall consider: (1) Historic, current and foreseeable cliff erosion, including investigation of recorded land surveys and tax assessment records in addition to the use of historic maps and photographs where available, and possible changes in shore configuration and transport. (2) Cliff geometry and site topography, extending the surveying work beyond the site as needed to depict unusual geomorphic conditions that might affect the site and the proposed development. (3) Geologic conditions, including soil, sediment and rock types and characteristics in addition to structural features such as bedding, 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) Wave and tidal action, including effects of

marine erosion on sea cliffs. (6) Ground and surface water conditions and variations, including hydrologic changes caused by the development (e.g., introduction of sewage effluent and irrigation water to the groundwater system; alterations in surface drainage). (7) Potential effects of seismic forces resulting from a maximum credible earthquake. (8) Effects of the proposed development including siting and design of structures, septic system, landscaping, drainage, and grading, and impacts of construction activity on the stability of the site and adjacent area. (9) Any other factors that may affect slope stability. (10) 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).

c. The area of demonstration of stability includes the base, face, and top of all bluffs and cliffs. The extent of the bluff top considered should include the area between the face of the bluff and a line described on the bluff top by the intersection of a plane inclined at a 20° angle from the horizontal passing through the toe of the bluff or cliff, or 50 feet inland from the edge of the cliff or bluff, whichever is greater.

d. Prohibit land divisions or new structures that would require the need for bluff protection work.

It is important to note that all of the cited LCP policies, as well as all that are included within the County's LCP, derive from the authority of the Coastal Act which is the guiding policy document that dictates the LUP provisions. The Coastal Act includes an adequate public services policy, namely Section 30250:

Section 30250. Location; existing developed area. *(a) New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources.*

In addition, the LCP defines public works as "All public transportation facilities, including streets, roads, highways, public parking lots and structures, ports, harbors, airports, railroads and mass transit facilities and stations, bridges, trolley wires and other related facilities." So taken together the LCP and Coastal Act require new development be located where said development can be served adequate public services including street access.

Thus, the LCP requires that development on coastal blufftops in San Mateo County minimize risks to life and property without contributing significantly to erosion, geologic instability, or destruction of the site or surrounding area, without the need for shoreline armoring, for the expected economic life span of the development (which is required to be evaluated for at least 50 years), and requires such development to be sited, designed, and set back to assure stability and structural integrity while meeting those

requirements. To meet these requirements, the LCP requires the submittal of a site stability evaluation that designates a safe setback that considers all of the following as applicable: 1) historic, current and foreseeable erosion; 2) bluff geometry and site topography; 3) geologic conditions; 4) evidence of past or potential landslide conditions; 5) wave and tidal action, including effects of marine erosion on bluffs; 6) ground and surface water conditions and variations; 7) potential effects of seismic forces resulting from a maximum credible earthquake; 8) effects of the proposed development including siting and design of structures, septic system, landscaping, drainage and grading, and impacts of construction activity on the stability of the site and adjacent area; 9) any other factors that may affect slope stability; and 10) potential erodibility of the site and mitigating measures to be used. Finally, the LCP requires new residential development be located within, or in close proximity to, existing developed areas able to accommodate it with adequate public services, including street, road, and utility access, and where it will not have significant adverse effects on coastal resources.

Analysis

As described earlier, the Appellant contends that the development was approved by the County without adequate analysis of the coastal hazards associated with the project site and, as such, given historic and expected trends, the erosion rate used to assure the approved project was safe from hazards for its economic life in accordance with LCP requirements was underestimated. In addition, the Appellant raises concerns that the County did not factor in sea level rise, slope stability, landslide potential, and the role groundwater and stormwater would play in increasing hazards at the site. The County determined that, as conditioned, the proposed project was designed and set back to assure stability and structural integrity for the expected economic life span of the development (50 years), based on the Applicant's analysis that concluded the bluff will retreat to within 10 feet of Ocean Boulevard in 75 years at a rate of 6.5 inches per year and to within 5 feet of Ocean Boulevard in 50 years with sea level rise. The Applicant's analysis used aerial imagery from 1943 to 2020 which demonstrated bluff retreat of approximately 40 feet in total over the course of that time frame to conclude that the applicable erosion rate was approximately 6.5 inches per year. Given this retreat rate, the Applicant concluded, and the County agreed, that the project site would be safe even after 75 years of bluff retreat.

Coastal Commission staff, including the Coastal Commission's coastal geologist, Dr. Joseph Street, evaluated the Applicant's reports which the County relied on as described above, and found these analyses inadequate for CDP/LCP evaluation for a number of reasons. While the Applicant evaluates historic erosion rates at the site using available resources (e.g., aerial photos, surveys, historic maps, etc.), the provided erosion rate considers bluff stability (i.e., factor of safety) and bluff retreat as separate, rather than additive, issues as required by the LCP and Coastal Act. Additionally, the provided slope stability analysis is over 20 years old, and a more current analysis is needed to properly account for changes in bluff position (i.e., retreat) and shape due to erosion. In addition, even the analysis provided by the Applicant that was prepared by Earth Investigations Consultants (2000) indicates that very large setbacks would be needed to achieve a 1.5 static factor of safety (about 87 feet) or 1.1 seismic factor of safety (>140 feet). In other words, even based on conditions from 20+ years prior, the project site would not be adequately stable during a strong earthquake, and under

“normal” static conditions, very little bluff erosion could be accommodated while still maintaining a 1.5 factor of safety. Further, per the San Mateo County Geotechnical Synthesis Map (by Leighton and Associates) provided by the Appellant, the proposed site is located in an area of Low Coastal Cliff Stability and indicates that the historic rate of cliff retreat at the subject site is greater than 1 foot per year, which is almost twice the long-term average rate (6.5 inches per year) provided by the Applicant’s geotechnical investigations.

With respect to sea level rise, the Applicant’s consultant determined that sea level rise would have very little additional influence on the lower cliff given that it consists of resistant bedrock that extends upward for about 75 feet. Above the resistant bedrock, the Applicant argues that the upper portion of the bluff is sufficiently elevated to prevent sea level rise from increasing erosion rates at the site, and that therefore the retreat rate should be similar to the historical average of 6.5 inches per year. Even so, the Applicant’s analysis did attempt to capture the effects of sea level rise by increasing the retreat rate by 50% to 9.7 inches per year, but it is not clear from the analysis what the justification for this approach was. Nonetheless, using this, the Applicant concluded, and the County relied on the assertion, that the proposed residence would continue to be located landward of the blufftop edge for 50 to 75 years (at this rate the bluff would retreat to within 15 feet of the proposed home, and cut into Ocean Boulevard (at its closest point to the bluff edge) by 11 feet by the end of 75 years). This attempt to factor in sea level rise with what could be categorized as a fairly arbitrary approach does not adequately factor in current and foreseeable bluff erosion and raises an issue of conformance with LCP requirements for devising safe setbacks.

The geotechnical investigation the County relied on also did not properly evaluate how future sea level rise would affect wave uprush and tidal action and their resultant impacts on the frequency and severity of episodic erosion events. While the lower Purisima Formation rock portion of the bluff is generally more resistant to erosion than the upper bluff terrace deposits, as stated in the Applicant’s geotechnical analysis, the analysis also states that the unit as a whole is “weak and fragile” and that it is easily eroded by waves. Dr. Street conducted an aerial analysis and found that the bluff toe retreated 64 to 90 feet in 81 years, resulting in an annualized retreat rate range of 0.8 to 1.1 feet per year, which at the lowest end matches the rate found by the Applicant’s consultants when accounting for sea level rise, but which primarily exceeds bluff retreat rates relied on by the Applicant and County. This evidence suggests that the lower bluff material is erodible, and also suggests that marine erosion is the dominant process contributing to bluff retreat at the site. The Applicant’s assumption that sea level rise would not affect the bluff retreat rate, especially as it relates to the bluff toe, indicates their calculation of the setback required to account for future bluff retreat may not be accurate, resulting in a project that could be vulnerable to coastal erosion exacerbated by sea level rise sooner than suggested by the Applicant’s studies.

Regarding factoring in the impact of landslides when devising safe setbacks as required by the LCP, given the close proximity of two major deep-seated landslides, the Appellant argues that a more thorough analysis is needed of the potential impacts to the subject site. The Applicant’s analysis, as relied upon by the County, acknowledges the landslides at Seal Cove to the north and in Pillar Point Harbor to the south but

determines that the project area is a relatively stable bluff segment because it has a southeasterly-trending shoreline angle and includes a wide offshore intertidal rock platform that lacks an effective beach, thus the deep-seated landslides are not a concern. Commission staff, including Dr. Street, reviewed the information regarding the large deep-seated landslides in the vicinity, and agree that there is no evidence the project site is within an active landslide. However, the proximity of deep-seated landslides is an indication that the bluff geology in the area is prone to failures, and thus reinforces the possibility that larger blufftop setbacks would be needed to assure stability (for a 1.5 static or 1.1 seismic factor of safety) at the site.

The Appellant also notes that a more thorough analysis is needed of the cumulative effects of stormwater and groundwater impacts on increasing erosional processes, in order to properly assess bluff stability. The Appellant argues that as the area only has individual on-site stormwater systems to collect and dispose of stormwater runoff, rather than municipal stormwater collection and disposal systems, as the area gets more developed, the cumulative effect of increased impermeable surface areas will result in increased stormwater and groundwater seepage at the contact zone between the marine terrace permeable soils. The Appellant goes on to argue that the resistant, less permeable bedrock of the Purisima Formation, will then exacerbate the erosional processes resulting from stormwater impacts through sloughing, slumps, debris slides, and larger block failures along the upper 20 feet of the bluff. The Applicant's analysis, which the County relied on for this point, states that the most obvious and active contributor to blufftop erosion and retreat along Ocean Boulevard is subaerial erosion from stormwater and groundwater inland of the sea cliff. This analysis goes on to surmise that precipitation and irrigation on inland areas percolates downward through the unconsolidated surficial materials, then stormwater and groundwater perches above the less permeable Purisima Formation unit, all of which can lead to slumping and collapse of the unconsolidated surficial unit (See **Exhibit 2**). Commission staff reviewed and determined that while the cumulative effects of stormwater and groundwater increase on erosional processes could potentially affect bluff retreat rates, these impacts would be captured in the historical retreat rate given that the area has been developed since the 1940's and the addition of one new house would cause minimal additional impacts. Therefore, the County's analysis adequately accounts for stormwater and groundwater impacts as they relate to how hazards will affect the site.

In short, and as demonstrated above, the County's analytic framework lacked important coastal hazard considerations. At the same time, however, the County's approval included a series of conditions of approval relating to coastal hazards, including prohibiting shoreline armoring to protect the approved development, and triggers for removal/relocation when threatened in the future, including when/if access is no longer possible to the site from Ocean Boulevard. Although available evidence suggests that a true 50 year setback would likely be further inland, and possibly inland of the lot itself, such a setback (and project denial) would raise the potential for a takings. Here, the approved development is of a similar size and has been set back to a similar degree as surrounding residences, and any uncertainties about the length of time that the

development will be safe from hazards can be addressed by the County's conditions,³ including as it means that the Applicant here is internalizing the risks of developing in a location that is subject to coastal hazards.

Thus, while the County's coastal hazard analysis was not as robust as it should have been, the outcome of the County's decision ensures that the LCP's objectives as they relate to shoreline development in areas subject to coastal hazards are met, including that the public will not need to absorb potential impacts related to potential armoring (as it is prohibited, and the approved development is required to be relocated/removed if/when threatened).

Finally, with respect to the proposed development being dependent on Ocean Boulevard for access, including utility access,⁴ the LCP requires new development be located within, or in close proximity to, existing developed areas able to accommodate it with adequate public services, including street, road, and utility access, and where it will not have significant adverse effects on coastal resources. The Applicant's analysis, as stated above, shows that even with their 50% increase in retreat rate to consider sea level rise, the bluff edge would retreat to within 5 feet of Ocean Boulevard in 50 years. Given that the bluff stability analysis and sea level rise impacts were underestimated, it is apparent that Ocean Boulevard may well indeed be in danger of erosion sooner than the required 50-year mark, putting at risk not only the Applicant's access to the proposed residence but also the proposed utilities. However, two things are noted. First, any issues regarding the future stability of Ocean Boulevard and its underlying utilities would be the subject of future coastal permit decisions, including as it relates to how best to address same were it to be determined that there was an existing structure in danger from erosion as those terms are understood under the Coastal Act and the LCP in terms of armoring. In that evaluation, it appears that only the subject property and its upcoast neighbor are limited to access/utilities from Ocean Boulevard (whereas other surrounding homes have access to either Precita or Bernal Avenues). And second, importantly, the County's conditions of approval prohibit armoring to protect the approved development in this case, both the house and the utility extension to serve it. And those conditions also require that the Applicant relocate/remove approved development in the event that access from Ocean Boulevard can no longer be provided. Thus, for this approved development at least, it has been conditioned in a way that it will not be able to prejudice any future decisions related to Ocean Boulevard, and it will be provided access/utilities for only so long as they can safely be provided without shoreline armoring.

To conclude, although the County's analytic process raises issues, the outcome suggests that the Commission need not become further involved in this case, and thus

³ The fact that some of the conditions refer to the Executive Director for determinations, while inartful, does not undermine or somehow invalidate the conditions. On the contrary, although it is uncommon for local CDPs to include Executive Director input, it does happen, and here it can also provide a degree of Commission oversight on these key issues. Additionally, County staff stated they could modify the conditions to account for any errors in the language.

⁴ Because the site is surrounded by other private properties with homes on them other than the Ocean Boulevard frontage.

the Commission finds that the Appellants contentions do not raise a substantial issue with respect to the County-approved project's conformity with the LCP and the Coastal Act's public access provisions.

Five Factors

When considering a project that has been appealed to it, the Commission must first determine whether the local government's decision on the project raises a substantial issue of LCP conformity, such that the Commission should assert jurisdiction over the CDP application 'de novo' (i.e., completely reviewing the project for LCP and Coastal Act consistency) for such development. At this stage, the Commission has the discretion to find that the project does or does not raise a substantial issue of LCP conformance. 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: the degree of factual and legal support for the County's decision; the extent and scope of the development as approved or denied by the County; the significance of the coastal resources affected by the decision; the precedential value of the County's decision for future interpretations of its LCP; and, whether the appeal raises only local issues as opposed to those of regional or statewide significance. The Commission may, but need not, assign a particular weight to a factor, and may make a substantial issue determination for other reasons as well.

In this case, the five factors, considered together, support a conclusion that the County's approval of a CDP for the proposed project does not raise a substantial issue of LCP conformance. In terms of the degree of factual and legal support for the County's decision, clearly the County's analysis in support of house siting was suspect, and thus this argues for substantial issue on this point. However, the outcome is one that meets the LCP's objectives with respect to development that is confronted by coastal hazards, including in terms of conditions that prohibit armoring to protect the approved development and that require relocation/removal subject to identified triggers. Here, the Applicant has internalized the risks for development here, which means that the public will not be burdened by the potential future measures designed to protect this site. And the site presents a potential takings problem that also provides context, and the County here has approved a house similar in size and setback to those nearby. Thus, the degree of support for the County's decision is tempered by the result of the County's decision, and this factor could go either way.

Second, with respect to extent and scope of the County-approved development and the significance of affected coastal resources, the proposed development is limited to one single-family residence and associated development and the proposed residence is surrounded by similarly sized and sited single-family residences on all three sides and is thus appropriately sited and sized for the project area. In fact, given the substandard nature of the parcel, and the surrounding developed parcels, the parcel would not lend itself to ample alternative siting for development. The second factor does not weigh in favor of a finding of substantial issue.

With respect to the significance of affected coastal resources, the project affects a scenic bluff and Seal Cove, a popular visitor destination and significant ecological resource within JV Fitzgerald Marine Reserve. However, the County-approved permit is

appropriately conditioned to limit and minimize potential impacts to these sensitive resources, including triggers which would require the removal of the development if it is threatened by coastal hazards, as well as the prohibition of shoreline armoring. In sum, the project is limited to one single-family home similar in character to the surrounding Moss Beach area, and while the resources in the area are important, the project as conditioned is expected to avoid any significant impacts to them. Thus, the third factor also does not weigh in favor of a substantial issue finding.

Further, with regard to the fourth factor, the potential to set an adverse precedent for future interpretations of the LCP, the discrepancies identified above in the County's coastal hazards analysis are concerning in that respect. In fact, should that analytic framework be deemed sufficient in other cases, it could lead to significant adverse coastal resource impacts elsewhere. That said, at the same time the County's decision also implements important coastal hazard adaptation and response measures, such as prohibiting armoring to protect the approved development, triggers for future removal/relocation of the development if it is threatened by coastal hazards in the future, assumption of hazard risk, real estate disclosure related to such risk and CDP requirements, and requirements for a deed restriction to be recorded against the property to provide additional notice to this and potential future property owners abouts coastal hazard risks and CDP requirements. These types of measures should be the rule under the LCP, and if including them here presages their future use in other cases, then that is a positive step in the right direction. Thus, this factor weighs both in favor and against substantial issue. But, the Commission also believes that its admonishments of the County's analytic framework in this report must also be considered, and it is expected that that will lead to more robust hazards analysis by the County moving forward and improved adaptation and response requirements. In that context, the fourth factor does not weigh in favor a substantial issue finding.

Finally, as to the fifth factor, the County-approved project does indeed raise issues of regional and statewide significance associated with the development on coastal bluffs that are subject to coastal hazards, and how best to address such development while also protecting coastal resources, including natural landforms and beaches below. Importantly, though, the decision leads to an outcome that is very protective of these resources in that context. So, while the resources involved argue for substantial issue, the fact that the County appropriately protected them through its conditions of approval supports a finding of no substantial issue.

In this case, these five factors, considered together, support a conclusion that the County's approval of a CDP for this project does not raise a substantial issue of LCP conformance, including in terms of consistency with LCP coastal hazards policies, as well as Coastal Act public access consistency. Thus, and for all of the reasons stated herein, the Commission finds that Appeal Number A-2-SMC-22-0003 does not raise a substantial issue as to conformance with the certified San Mateo County LCP and the public access policies of the Coastal Act.

Substantial Issue Conclusion

For the reasons stated above, the Commission finds that Appeal Number A-2-SMC-22-0003 does not present a substantial issue with respect to the grounds on which the

appeal has been filed under Section 30603 of the Coastal Act, and the Commission declines to take jurisdiction over the CDP application for this project.

3. APPENDICES

A. Substantive File Documents⁵

- San Mateo County CDP File PLN2020-00043
- San Mateo County Geotechnical Synthesis Map (Leighton and Associates)
- Earth Investigations Consultants, Inc. Geotechnical Investigation – February 9, 2000
- Earth Investigations Consultants, Inc. Geotechnical Update – September 26, 2016
- Louis A. Richardson, P.G., C.E.G. Geologic Investigation – November 30, 2020
- Frank Lee & Associates Geotechnical Consultants. Geotechnical Investigation – December 3, 2020
- Louis A. Richardson, P.G., C.E.G. Supplemental Geologic Investigation – October 12, 2021

B. Staff Contacts with Agencies and Groups

- San Mateo County Planning and Building Department

⁵ These documents are available for review from the Commission's North Central Coast District office.